



Comparison of the Effectiveness Group Exploring Training and Conceptual Learning on Academic Motivation Elementary School 5th Grade Boy Students

Mojtaba. Reisi Sarteshneizy¹, Ahmad. Ghazanfari*², Reza. Ahmadi³ & Tayebeh. Sharifi²

1. PhD Student in Educational Psychology, Department of Psychology, Shahrekord Branch, Islamic Azad University, Shahrekord, Iran

2. Associate Professor, Department of Psychology, Shahrekord Branch, Islamic Azad University, Shahrekord, Iran

3. Assistant Professor, Department of Psychology, Shahrekord Branch, Islamic Azad University, Shahrekord, Iran

ARTICLE INFORMATION

Article type

Original research

Pages: 11-16

Corresponding Author's Info

Email: a.ghazanfari@iaushk.ac.ir

Article history:

Received: 2022/09/17

Revised: 2022/11/20

Accepted: 2022/12/09

Published online: 2023/03/18

Keywords:

Exploratory group education, concept learning, academic motivation, elementary students

ABSTRACT

Background and Aim: Students experience different emotions in academic situations. Emotions are always present in educational and clinical environments. Academic resilience also refers to high levels of motivation for progress and performance, despite limited conditions. Therefore, the aim of the present study was to determine the effectiveness of teaching compassion, academic counseling based on a narrative approach, on resilience and academic emotions of students with academic failure. **Methods:** The research method of this research was a **quasi-experimental** type of research with a pre-test-post-test-follow-up design with a control group, and in terms of its purpose, it was an applied research. The design of this research was three groups (two experimental groups and one control group). The statistical population of the research included male students of the fifth grade of elementary school in Kiyar city in the academic year 2019-1400, and the studied sample included 75 male students, 25 in the exploratory group teaching experimental group, 25 in the conceptual learning experimental group, and 25 in the experimental group. Controls were selected by multi-stage random sampling. The research tool included Harter's (1981) academic motivation questionnaire, whose reliability was 0.89 with Cronbach's alpha coefficient. To analyze the data, descriptive statistics (mean and standard deviation) and inferential statistics including **Bonferroni's** post hoc test and multivariate covariance analysis were used in Spss24 software. **Results:** The findings showed that exploratory group training and conceptual learning have a significant effect on academic motivation ($P < 0.05$). In other words, exploratory group teaching methods and conceptual learning increased the average scores of academic motivation. Also, there is no difference between exploratory group teaching method and conceptual learning method on students' academic motivation. **Conclusion:** It can be concluded that teachers can use the method of exploratory group teaching and concept learning in the presentation of elementary science lessons, considering the concreteness of the experimental science lesson contentation.



This work is published under CC BY-NC 4.0 licence.

© 2022 The Authors.

How to Cite This Article:

Reisi Sarteshneizy, M., Ghazanfari, A., Ahmadi, R., & Sharifi, T. (2022). Comparison of the Effectiveness Group Exploring Training and Conceptual Learning on Academic Motivation Elementary School 5th Grade Boy Students. *jayps*, 3(3): 11-16.

Introduction

The school period is one of the most important academic years because the habit of studying and strengthening the curriculum is formed during this period. With the right choice, you can create a bright academic and career future. The best solution for choosing the right education is knowing your talents, interests and potential, as well as examining your future education and career. So a conscious and rational decision is the key to success. To have such a choice, using telephone and face-to-face academic counseling services is the best solution (Dashtipour, 2016). Academic counseling helps students recognize their abilities, talents and learning style, plan, choose a field of study and solve educational and disciplinary problems. In this way, they can develop their abilities, use existing facilities optimally, solve their academic problems and adapt to the educational environment (Namdar et al., 2020).

Narrative therapy is the process of helping people overcome problems by engaging in conversation therapy (Pain, 2016). This therapeutic process emphasizes the externalization of the problem from the person and sees them as separate parts of the person (Ryan, Edwyer, and Leahy, 2015). A narrative is a form of conversation that connects events over time and, therefore, can show the emotional dimensions of human existence. These conversations can include externalizing the problem, extracting consequences, highlighting new maps and connecting it to the past (Procheska and Norcross, translated by Seyed Mohammadi, 2020). White and Epsom (1985) narrative therapy is one of the most widely used types of narrative therapy (Sharf, 2015).

In the context of education, academic resilience is defined as a high probability of success in school despite challenging and threatening conditions, which is caused by qualities, conditions, and early experiences (Morrison & Allen, 2016). Martin and Marsh (2009) believe that academic resilience is not limited to students with unfavorable backgrounds and conditions, but all students experience some level of poor performance, adversity, challenges and failures in their educational process (Martin & Marsh, 2009).

Narrative therapy has an effect on students' academic excitement. Emotions are always present in academic environments (Artino et al., 2012). Emotion is conceptualized as a mental

every education and training system, students' academic motivation is considered one indicator of success in scientific activities, which means the amount of school learning that a person acquires (Abdi & Rostami, 2017). The motivational structure is an important factor affecting social changes and societal transformation. Motivation is the desire to do work or move towards a specific behavioral application (Abdul Rahman, 2020; Fong, 2022). Academic motivation has been described as a mental, emotional and behavioral determinant of a student that shapes his investment in education and commitment (Siurikayama, 2019). Also, academic motivation is defined as the factor that has the greatest impact on student performance, among other factors (Samawi, Ebrahimi, and Javadan, 2017). Bandura (1980) has stated in his cognitive-social theory that academic motivation is neither an internal concept nor related to personality traits; Rather, it is a structure that is formed by the learning processes and experiences of the individual and it differs from one environment to another (Epoko-Mensa, 2019).

Experts believe teaching methods are effective in academic motivation (Saeidi, Ghafouri, Tehrani, and Abedini, 2021). One of the active and effective teaching methods for academic motivation is the exploratory group teaching method, which begins by presenting a relatively new concept (Tan, 2021). Suchman believes that students encounter various situations in their daily lives, and teachers can motivate students to strive academically. They become aware by creating a situation similar to real-life conditions (Darayel, Borogo, Peraan, Engayan, and Shekhar, 2018). The purpose of exploratory group education is to bring learners directly into the stream of scientific thinking. This method puts learners in a position to test issues through thought, exploration, and research with the help of existing evidence and draw their own conclusions. Exploration based on group assistance helps learners' growth, thinking, and knowledge (Nazari, 2016).

Another method that affects the level of academic motivation of students is the conceptual learning method. This method is one of the most important types of human learning; Because concepts form the core of human thinking. In addition, the attributes of abstract concepts, like these concepts themselves, are not

visible, and they cannot be simply described as the attributes of objective concepts. For this reason, it is difficult for learners to understand and learn them (Basiri, Talebi and Nili, 2014). Since teaching concepts is a lifelong matter and guiding learners to learn a difficult, important and specialized task, teaching concepts requires its own method. In fact, with the implementation of this method, the learners learn course materials better, and more stable learning is achieved for them (Shabani, 2017). In order to teach concepts and words, the meanings and concepts should be taught with appropriate and creative teaching. We usually face abstractions at the cognitive level and do not store objects or events in memory as they are; rather, we store their representations; therefore, what we carry with us as knowledge comes to us as knowledge and classes, not as specific independent events. Thus, one of the most important types of human learning is "concept". The feeling of the need for research about the topic of research and its importance in the science of psychology and various branches of counseling (educational, family, occupational, and health) and its role in the mental health of people in society is inevitable; Therefore, the main goal of the current research is to compare the effectiveness of group learning and conceptual learning in the science lesson on the academic motivation of fifth grade male students in Kiyar city.

Method

The research method of this research was a quasi-experimental type of research with a pre-test-post-test-follow-up design with a control group, and in terms of its purpose, it was an applied research. The design of this research was three groups (two experimental groups and one control group). The statistical population of the research included male students of the fifth grade of elementary school in Kiyar city in the academic year 2019-1400, and the studied sample included 75 male students, 25 in the exploratory group teaching experimental group, 25 in the conceptual learning experimental group, and 25 in the experimental group. Controls were selected by multi-stage random sampling. The research tool included Harter's (1981) academic motivation questionnaire, whose reliability was 0.89 with Cronbach's alpha coefficient. To analyze the data, descriptive statistics (mean and standard deviation) and inferential statistics including Bonferroni's post hoc test and multivariate covariance analysis were used in Spss24 software.

Research tools

1. Academic motivation questionnaire. The tool for measuring students' academic motivation in this research was Harter's (1981) academic motivation questionnaire. Harter's academic motivation questionnaire includes 33 items and its purpose is to investigate the motivation of academic progress among students. This tool measures academic motivation with bipolar questions, one pole of which is intrinsic motivation and the other pole is extrinsic motivation. The subject's answer to the subject of each question can only include one of the external or internal reasons. The scoring of this questionnaire is based on a Likert scale (never, 1; rarely, 2; sometimes, 3; most of the time, 4; almost always, 5). This scoring method is reversed in questions 3, 4, 5, 9, 10, 15, 16, 19, 21, 27 and 31. The lower and upper limit of this test is 33 to 165. If the questionnaire scores are between 33 and 66, the level of academic motivation in this society is weak. If the questionnaire scores are between 66 and 99, the academic motivation level is average. If the scores are above 99, the level of academic motivation is very good.

Results

Academic motivation scores have increased in the post-test and follow-up stages in the exploration and conceptual learning groups. Before performing the inferential tests, the assumptions of variance analysis were performed. First, the normality of the data was done, and the results showed that the significance level of the Smirnov Kromogrof test in all research variables is greater than 0.05. Therefore, all the data were normal. Another premise of using analysis of variance with repeated measurements was the assumption of equality of variances, which was investigated by Levine's test, and its results showed that the F value obtained for Levine's test in the variable of academic self-motivation in the pre-test, post-test and follow-up stages is not significant. This lack of significance means that the assumption of homogeneity of variance has been met. The assumption of homogeneity of the covariance matrix was also checked and the results showed that the condition of the homogeneity of the variance matrix was met and the F test does not face any limitations.

There is a significant difference between the average scores of the pre-test and the post-test and the follow-up of academic motivation, which indicates the effectiveness of the training. Also,

the average post-test score is similar to the follow-up stage, which shows that the score of academic motivation did not decrease in the follow-up stage.

Covariance analysis of at least one of the training pieces has affected the subjects' academic motivation score in the post-test phase, and 69.5% of the variance of the difference in the academic motivation score is explained by the pieces of training. There is a significant difference in the average score of academic motivation in the exploration and concept learning group and the control group. Also, the comparison of averages shows that group learning and concept learning are effective. However, the effectiveness of exploratory group training is not more than concept training.

Conclusion

The subject of students' academic motivation is one of the challenges of the educational system, which requires research, especially in elementary school. Therefore, the main goal of the present study was to compare the effectiveness of group learning and conceptual learning in the science lesson on the academic motivation of fifth-grade male students.

The first finding of the research showed that exploratory group education is effective on students' academic motivation. The method of group education in the form of exploration allows students to discover and understand their surroundings in a collective environment, so elementary school students can enjoy education more due to group vitality and learning in the form of group education. It can also be concluded that the exploratory group teaching method requires the cooperation and involvement of students in learning, which can provide the context for more cooperation of students in the group, and as a result, makes students enjoy deeper learning and a higher motivation to explore their surroundings in the form of have study materials; because they learn things in the form of group training that they play a role in discovering and understanding. In fact, the purpose of exploratory group education is to bring learners directly into the stream of scientific thinking; therefore, exploratory group education increases students' academic motivation due to the direct involvement of students in learning and the group nature of education and discovery in the group.

Another research finding was the effect of the concept learning method on academic motivation. The results showed that the scores of

the experimental group were higher than the control group in both stages of the research implementation and after the intervention and follow-up. The experimental science course in elementary school is more about knowing and understanding the surrounding environment. Also, to discover things that according to the goals of the students' curriculum, for example, to know and understand the life cycle of animals; Therefore, one of the appropriate methods that can affect teaching the concepts of this lesson is concept learning. Conceptual learning makes students understand and remember course materials with the help of their teacher. In general, the concept learning method, considering that it is considered a suitable method for teaching concepts and words in understanding abstract concepts, makes relatively complex concepts simple and comprehensible for students. Therefore, it can be concluded that, on the one hand, the concept learning method makes complex concepts and teaching materials easier to present, and on the other hand, concept learning makes the effort of students along with their teacher lead to an increase in academic motivation.

In general, the group teaching methods of exploration and conceptual learning can lead to more academic motivation of students, considering the collective and group spirit of learning in the science course. Also, because the science lesson deals with objective and concrete teaching materials, it makes the group trainings of exploration and concept learning more enjoyable for the group, and as a result, the academic motivation and desire to learn increases. The limitations of this research should be mentioned because this research was conducted in a limited area and many other intervening and influential variables such as the family environment and the level of parental literacy, were not controlled. Also, gender was not considered in this research and male and female students may differ in academic motivation with the methods taught. It is suggested that considering that the effectiveness of group education of exploration and concept learning had a significant effect on academic motivation; elementary school teachers should use these methods more in teaching and providing education. Also, it is suggested that researchers include the gender variable in their research results in the future so that students can be taught more confidently.

Conflict of Interest

According to the authors, this article has no financial sponsor or conflict of interest.

References

- Abdelrahman, R. M. (2020). Metacognitive awareness and academic motivation and their impact on academic achievement of Ajman University students. *Heliyon*, 6(9), e04192.
- Abdi, A. A., & Rostami, M. (2017). The effectiveness of the teaching method based on the effects of cognitive load on academic progress, perceived cognitive load and students' motivation to learn experimental sciences. *Scientific Journal of Education and Evaluation*, 10(40), 43-67.
- Ahmadi, S. A. (2012). Principles and methods of education in Islam. 6th edition, Isfahan, University Press.
- Basiri, B., Talebi, H., & Nili, M. R. (2014). Investigating the effect of concept acquisition pattern on the academic performance of female undergraduate students of Payam Noor University of Isfahan in statistics. *Two scientific quarterly journals of modern educational approaches of the Faculty of Educational Sciences and Psychology, University of Isfahan*, 2(4), 88-59.
- Deng, L., & Tavares, N. J., (2013). Exploring students' motivation and experiences in online communities. *Journal of Educational*, 17(3), 167-176.
- Duckworth, A. L. Taxer, J. L., Eskreis-Winkler, L., Galla, B. M., Gross, J. J. (2019). Self-control and academic achievement. *Annual review of psychology*, 70(1), 373-399 .
- Fong, C. J. (2022). Academic motivation in a pandemic context: a conceptual review of prominent theories and an integrative model. *Educational Psychology*, 1-19. <https://doi.org/10.1080/01443410.2022.2026891> .
<https://rdw.rowan.edu/etd/2412>
- Hung, S., & Young, C., (2018). Exploring the effects of integrating the ipad to improve students' motivation and badminton skills: WISER model for Physical education. *Journal of technology, pedagogy and educational*, 27(3). Pp. 232-240 .
- Ilter, I., (2014). A study on the efficacy of project-based learning approach on social studies Education conceptual achievement and academic motivation *Journal of Educational Research and Reviews*. 16(3), 290-300.
- Khakbaz, Gh. (2019) Presentation of courseware based on the pattern of understanding the concept and its effect on learning, memorization and motivation of the academic progress of the 7th grade experimental science course in Khaf city. Islamic Azad University, Taibad Branch, Educational Sciences Department.
- Manochehri, P. (2011). Investigating the teaching method of Podmani and discovery teaching method in science lesson on the academic progress of fifth grade students in Sanandaj city in the academic year of 2018-2019. Master's Thesis of Educational Sciences, Allameh Tabatabai University, Tehran.
- Naroi, M. (2012). The effectiveness of the concept acquisition teaching method on the performance and motivation of the academic progress of the experimental science course of the fifth grade elementary students of Saravan city, master's thesis, Islamic Azad University, Maroodasht Branch, Faculty of Educational Sciences.
- Opoku-Mensah, D (2019). Motivational Determinants of Junior High School Students' Learning of Ghana's Core Subjects: An Intrinsic Case Study (Doctoral dissertation, the American College).
- Rubin, S. (2017). The relationship between academic motivation and parenting styles in multiple socioeconomic status areas. *Theses and Dissertations*. 2412 .
- Saeedi M, Ghafouri R, Tehrani FJ, Abedini Z. The effects of teaching methods on academic motivation in nursing students: A systematic review. *J Edu Health Promot [serial online]* 2021 [cited 2022 Jun 30];10:271. Available from: <http://www.https://jehp.net//text.asp?2021/10/1/271/322539>
- Shabani, H. (2017). Educational and educational skills: teaching methods and techniques, Tehran, Samt.
- Sivrikaya, A. H. (2019). The Relationship between Academic Motivation and Academic Achievement of the Students. *Asian Journal of Education and Training*, 5(2), 309-315.
- Tan, C. (2021), "The impact of COVID-19 on student motivation, community of inquiry and learning performance", *Asian Education and Development Studies*, Vol. 10 No. 2, pp. 308-321. <https://doi.org/10.1108/AEDS-05-2020-0084>.
- Tharayil, Sneha, Maura Borrego, Michael Prince, Kevin A. Nguyen, Prateek Shekhar, Cynthia J. Finelli, and Cynthia Waters. "Strategies to mitigate student resistance to active learning." *International Journal of STEM Education* 5(1), (2018): 1-16.
- Vilasco, C, Harrison, J., Cardullo, V. (2014). An evaluation of student's motivation in computer- supported collaborative learning of

-
- programming concept. *Journal of educational.* 64(6), 499-508.
- Widana, IW. Sumandya, IW. (2020). Analysis of conceptual understanding, motivation on the teachers skills in preparing host – based assessments. *Journal of Advance Research in Dynamical & Control Systems*,12(8),459-466.
- Yazdaniyan, T. (2014). Comparison of the effectiveness of the teaching method based on the method of understanding the concept and the constructivist teaching method on the level of motivation, performance and academic progress of secondary school students, master's thesis in the field of psychology, Islamic Azad University, Maroodasht branch.