



## Analysis of the content of the information transfer section in the generations" newly authored biology book of the twelfth academic year 1401-1400 by the method of William Rumi

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### Abstract

The aim of the present research is to analyze the content of the topics in the "Transmission of Information in Generations" book of the 12th Biology in terms of being active or not, based on William Rumi's model. Objective: To what extent are the sentences and images of the section "Information transmission in generations" of the 12th grade biology book of the second year of high school actively or passively compiled? The existing research was conducted using quantitative content analysis and descriptive statistical methods. The studied society considered in this project was the chapter "Information transfer in generations" of the new book authored by the twelfth grade biology in the academic year of 1401-1400. The results of this research showed that the conflict index for the sentences of the texts of the chapter "Information transmission in generations" in the twelfth grade biology book was in the range of 0.08 and zero for the images of these texts. Considering that the learning coefficient of the sentences of this section is less than 0.4, therefore, the authored content is not activity-oriented and is far from the ideal situation. The learning coefficient of images related to this section is zero and it is very inactive, but it is expected to be compiled in a more appropriate way.

**Keywords:** Content analysis, "Information transfer in generations", learning coefficient, being active, 12th biology, William Rumi.

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## References

- Ahmadi, Hatem (2021). Analysis of the content of biology topics in experimental science textbooks of the fifth and sixth grades using William Rumi's technique. Poish Quarterly in Basic Sciences [In Persian].
- Avesta, homeland; Imani, Faezeh; Alavian, Firuzeh (2017). Analysis of the content of the tenth grade biology book of the second year of high school in the field of experimental sciences from the perspective of being active and passive based on William Rumi's model. Specialized Scientific Quarterly of Research in Biology Education. 1(1): 50-61 [In Persian].
- Aghazadeh, Ahmed. Iran's Education Issues, Somit Publications, Tehran [In Persian].
- Abdullah Mirzaei, Messenger. Mehnani, Ehsan (2013) Analysis of the content of the second year high school chemistry textbook in the concepts of ionic and covalent compounds using William Rumi's method" presented in the 8th Iranian Chemistry Education Seminar [In Persian].
- Badrian, Abed; Rostgar, Tahereh (2015). "Comparative study of science education standards of general education in Iran and countries successful in the TEAMS test" presented at the innovation conference in elementary school curriculum [In Persian].
- Brahoi Moghadam, Noor Ebrahim (2019). Analysis of the content of the 12th grade biology book from the perspective of being active or inactive based on William Rumi's method [In Persian].
- Brook, J. S., Whiteman, M., & Gordon, A. S. (2011). Drug Use and Abuse, Aguide to Research Findings. ABC - Clio, inc, Vol. Z: Adolescents.
- Brown, I., & Percy, M. (2013). A Comprehensive Guide to Intellectual and Developmental. London, Powl. H. Brooke.
- Connolly, J., Nocentini, A., Menesini, E., Pepler, D., Craig, W., & Williams, T.S. (2010). Adolescent dating aggression in Canada and Italy: A cross-national comparison. International Journal of Behavioral Development, 34 (2), 98-105.
- Degbey, J.K. (2010). Concepts of Variable in Middle-Grads Mathematics Textbooks during Four Ears of Mathematics Education in the United States. Graduate School these and Dissertation.
- Faizi, sorry; Ahmadi, Hatem (2022). Analysis of the content of chemistry topics from the book of experimental sciences of the seventh grade of the academic year 2022-2021 by the method of William Rumi. The fourth national conference of chemistry education. Tabriz . Farhangian Allameh Amini University [In Persian].
- Ghorbani, Mohammad Reza; Gholami, Azam; Dadashzadeh, Amin (2016). Analysis of the content of the 10th grade biology book based on William Rumi's method [In Persian].
- Guardian, Hadith; Gholamhosseini, Marzieh; Farahani, Fatemeh (2014). Analysis of the content of the Persian book to read the fifth grade based on the technique of William Rumi, the second international conference on psychology, educational sciences and lifestyle, Mashhad, <http://civilica.com/doc/498167> [In Persian].
- Gibbs, W. Fox, D. (1999). The False Crisis in Science Education. Scientific American. October 281(4): 86-93.

- Hassan Moradi, Narges (2016). Content analysis of elementary school textbooks (5th edition). Tehran: Aizh Publications [In Persian].
- Harlen, W. (1999). Effective Teaching of Science. Edinburg: Scottish Council for Research in Education.
- Harris, K., Mullan, Duncan, G., & Boisjoly, J. (2016). Evaluating the Role of "Noting to Lose" Attitudes on Risky Behavior in Adolescence. *Social Forces*, 80, 635-649.
- Harris, R. (2006). Embracing your demons: An overview of acceptance and commitment therapy. *Psychotherap Aust.* 21(4), 2-8.
- Hayes, S.C., & Strosahl, K.D. (2010). A practical guide to acceptance and commitment therapy. New York:Springer Press.
- Jafari Herandi, Reza; Nasr, Ahmad Reza; Mirshah Jafari, Seyed Ibrahim (2007) "Content analysis is a widely used method in social science studies, Jafari Harandi, Reza; Nasr, Ahmad Reza; Mirshah Jafari, Seyed Ibrahim (2008) "Content analysis is a widely used method in the studies of social, behavioral and human sciences, with an emphasis on the content analysis of textbooks". *Field and University Quarterly: Humanities Methodology*. 14(55): 33-58. Behavioral and human, with emphasis on the content analysis of textbooks. *Field and University Quarterly: Humanities Methodology*. 14(55): 33-58 [In Persian].
- Jessor, R. (1992). Risk behavior in adolescence: A psychosocial framework for understanding and action. In D. E. Rogers & E. Ginzberg (Eds.), *Adolescents at risk: Medical and social perspectives*, 19-34.
- Julie, W., & Drill, J.A. (2014). The effect of acceptance therapy and cognitive-behavioral therapy on the symptoms of depression and general anxiety, A Preliminary Report. *Behavior Therapy* 42, 127-134.
- Kerami, Zahra; Asdabighi, Pejman; Kerami, Mehdi (2012). Analysis of the content of mathematics book 1 of the first grade of high school based on William Rumi's technique and Bloom's cognitive domain. *Research Quarterly in Curriculum Planning*. Volume 2, Number 10. 179-167 [In Persian].
- Karimi Haji Khademi, Adele; Ameri, Leila (2017). Analysis of the content of the 11th physics book with William Rumi's technique and Bloom's cognitive field. The fourth provincial scientific research conference from a teacher's point of view. Minab city education management [In Persian].
- Kendall, P. C. (2010). *Child and adolescent therapy: Cognitive behavioral procedures* (2 nd ed.). New York: Guilford, 5(41), 5241-5259.
- Knudsen, H.K., & Abraham, A.J. (2012). Perceptions of the state policy environment and adoption of medications in the treatment of substance use disorders. *Psychiatric Services*. 2012;63(1), 19-25.
- Lee, C. H. (2010). Personal and interpersonal correlates of bullying behaviors among korean middle school students. *Interpersonal Violence*, 25(1), 32-51.
- Lehman, W.E.K, Simpson, D.D, Knight D.K., Flynn, P.M. (2011). Integration of treatment innovation planning and implementation: Strategic process models and organizational challenges. *Psychology of Addictive Behaviors*, 25(2), 252-261.

- Louise Hayes & Candice P. Boyd & Jessica Sewell (2011). Acceptance and Commitment Therapy for the Treatment of Adolescent Depression: A Pilot Study in a Psychiatric Outpatient Setting. *Mindfulness*, 2, 86–94.
- Lotfabadi, Hossein. (2012). Applied developmental psychology of childhood and youth. Tehran: National Youth Organization [in persian].
- Mahmoudian, Ali; Salimpour, Hamed; Shafa'i, Nurala; Eskandari, Hassan. (2017) . Analysis of the content of the new book authored by Life (3), twelfth grade experimental, 2018 edition, according to the method of William Rumi. The fourth national research conference in basic science education. Tehran. Shahid Rajaei Tarbiat University [in persian].
- Maruti Sibani, Mehssa; Darvish Metoli, Homa; Maruti Sibani, Zahra; Kipour, Samia. (2021). Content analysis of 12th grade biology content (2020-2021) using the Roman method. *Poish Quarterly in Basic Science Education*: 7(23): 120-122 [in persian].
- Mahmoudi, R. (2020). Analyzing the content of school textbooks Persian literature. MS Thesis, Tehran University of Teacher Education [in Persian].
- Marquez, M. P., & Galban, N. (2004). Getting hotter, going wilder? Changes in sexual risk-taking behavior among Filipino youth. Paper presented at the seventh International Conference on Philippine Studies, Leiden, and The Netherlands, 16-19
- Myers, E., NapaScollon, C. K., Oishi, S., Dzokoto, V., & Suh, E. M. (2014). Evaluate the effect communication skills-based education on controlling women's behavior problems. *Journal of Happiness Studies*: 1, 159-176.
- Nansel, T. R., Overpeck, M., Pilla, R. S., Ruan, W. J., Simons-Morton, B., & Scheidt, P. (2014). Bullying behaviors among U.S. youth: Prevalence and association with psychosocial adjustment. *The American Medical Association*, 285, 2094-2100.
- Patchin, J. W., & Hinduja, S. (2016). Bullies move beyond the schoolyard: A preliminary look at cyberbullying. *Youth Violence and Juvenile Justice*, 4, 148-194.
- Patchin, J.W., & Hinduja, S. (2011). Traditional and nontraditional bullying among youth: A Test of General Strain Theory. *Youth & Society*, 43(2),352-369.
- Prior, M. (1992). Childhood temperament. *Journal of Child Psychology and Psychiatry*, 33(1), 249-279.
- Qasimpour Moghadam, Hossein; Naghizade Anhar, Abdul Hossein; Mazaheri, Hassan (2012). Analysis of the content of experimental sciences of the sixth grade of primary school by the method of William Rumi. The fifth national education conference. Tehran: Shahid Rajaei Tarbiat University [in persian].
- Romey, D. W. (1968). *Inquiry Techniques For Teaching Science*. Prentice-Hall, International Inc, Englewood Cliffs, New Jersey. USA
- Rauktis, M.E., McCarthy, S., Krackhardt, D., & Cahalane, H. (2010). Innovation in child welfare: The adoption and implementation of Family Group Decision Making in Pennsylvania. *Children and Youth Services Review*, 32(5), 732–739.
- Ruiz, L. (2010). A review of the empirical evidence of admission and commitment to health through a comprehensive overview of experimental and non-experimental studies in



- the field of admission and medical commitment. *Journal of Adolescent Health*, 19, 26-82.
- Samii, Doust Mohammad; Mehrabi, Zenet. Analyzing the content of the first chapter of the 12th grade chemistry book based on William Rumi's method and determining its importance by Shannon's entropy method. *Research in chemistry education* (2018); First year, number 3, pages 53-72 [in persian].
- Shaari Nejad, Ali Akbar (2014). *Psychology of education and teaching*. Tehran: Information Publications [in persian].
- Sahibzadeh, Behrouz; Brahui Moghadam, Nur Mohammad (2015). Analyzing the level of active editing of the book of experimental sciences in the third grade of middle school based on William Rumi's method. The third conference of psychology, educational sciences and lifestyle with an international approach [in persian].
- Strachan, L., & Munroe-Chandler, K. (2012). Using imagery to predict self-confidence and anxiety in young elite athletes. *Journal of Imagery Research in Sport and Physical Activity*. 1 (1), 125-33.
- Sediq Sarostani, Rahmatullah. (2012). Examining the risk factors in the contamination of Iranian children and youth with substance abuse. *Social Sciences*, 11(2), 73-91.[in persian].
- Teodoro, M.L., Kappler, K.C.; Rodrigues, J.L., de Freitas, P.M. & Haase, V.G. (2005). The Matson Evaluation of Social Skills with Youngsters (MESSY) and its Adaptation for Brazilian children and adolescents. *International Journal of Psychology*, 39, 2, 239-246.
- Veehof, M. M., Oskam, M. J., Schreurs, K. M., & Bohlmeijer, E. T. (2011). Acceptance-based interventions for the treatment of depression: a systematic review and meta-analysis. *Pain*. 152, 533-542.
- Webster-Stratton, C., & Reid, M.J. (2003). Treating Conduct Problems and Strengthening Social and Emotional Competence in Young Children: The Dina Dinosaur Treatment Program, *Journal of Emotional and Behavioral Disorders*, 11 (3), 130-143.
- Yarmohamedian, Mohammad Hossein (2002). *Principles of lesson planning* (third edition). Tehran: Yadavare Kitab Publications [in persian].