



# KOGNITIBONG KAMALAYAN BILANG MODIREYTOR SA UGNAYAN NG KASANAYANG INTELEKTUWAL AT AKADEMIKONG MITHIIN NG MGA MAG-AARAL SA ANTAS NG SEKUNDARYA

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## ABSTRAK

Ang kasalukuyang pag-aaral ay gumamit ng deskriptiv na pamamaraan sa pananaliksik gamit ang correlational na pamamaraan sa pananaliksik upang masuri ang makabuluhang epekto ng kognitibong kamalayan bilang modireytor sa ugnayan sa pagitan ng kasanayang intelektuwal at akademikong mithiin ng mga mag-aaral sa antas ng sekundarya. Ang mga napiling kalahok ng mananaliksik sa kasalukuyang pag-aaral ay ang isang daan at limampung (150) mag-aaral sa antas ng sekundarya sa iilang paaralan sa Carmen District, Davao del Norte. Sa kabilang banda, natuklasan ng mananaliksik na ang antas ng kasanayang intelektuwal, akademikong mithiin, at kognitibong kamalayan ng mga mag-aaral sa antas ng sekundarya ay katamtaman. Samantala, natuklasan sa pag-aaral na mayroong makabuluhang ugnayan sa pagitan ng kasanayang intelektuwal at akademikong mithiin ng mga mag-aaral sa antas ng sekundarya kung may namamagitan na modireytor (kognitibong kamalayan). Panghuli, napag-alaman ng mananaliksik na ang kognitibong kamalayan ay isang epektibong modireytor sa ugnayan sa pagitan ng kasanayang intelektuwal at akademikong mithiin ng mga mag-aaral sa antas ng sekundarya. Kaya inirekomenda ng mananaliksik na ang mga tagapangasiwa ng Kagawaran ng Edukasyon ay inaasahang itaguyod ang integrasyon ng mga programa at patakaran na naglalayong mapalawak at mapabuti ang kognitibong kamalayan at kasanayang intelektuwal ng mga mag-aaral.

**BATAYANG SALITA:** *Pagtuturo ng Asignaturang Filipino, kasanayang intelektuwal, akademikong mithiin, kognitibong kamalayan, modireytor, Pilipinas*

## INTRODUKSYON

Ang mababang antas ng akademikong mithiin ng mga mag-aaral sa antas ng sekundarya ay maaaring magkaroon ng iba't ibang epekto sa kanilang pag-aaral at personal na pag-unlad. Ang mababang antas ng akademikong mithiin ay maaaring magdulot ng kakulangan sa motibasyon sa pag-aaral. Kung wala o mababa ang pangarap o layunin ng isang mag-aaral, maaaring maging kawalan ng inspirasyon ang pag-aaral, na maaaring humantong sa kawalan ng interes at dedikasyon sa pag-aaral. Ang pagkakaroon ng mababang antas ng akademikong mithiin ay maaaring humantong sa pag-atras o pag-aaksaya ng oras sa pag-aaral. Ang kakulangan ng layunin at direksyon ay maaaring maging hadlang sa wastong paggamit ng oras sa pag-aaral. Mahalaga na ang mga paaralan at mga guro ay maging tutok sa pagpapabuti ng antas ng akademikong mithiin ng mga mag-aaral sa pamamagitan ng pagbibigay ng inspirasyon, suporta, at mga oportunidad para sa kanilang pag-unlad.

Ang pag-aaral na ito, na pinamagatang "Kognitibong Kamalayan Bilang Modireytor Sa Ugnayan Ng Kasanayang Intelektuwal At Akademikong Mithiin Ng Mga Mag-Aaral Sa Antas Ng Sekundarya," ay naglalayong tukuyin at unawain ang kaugnayan o koneksyon ng kognitibong kamalayan bilang isang modireytor sa kasanayang intelektuwal at akademikong mithiin ng mga mag-aaral.

Ipinakita dito kung paano maaaring baguhin o palakasin ng kognitibong kamalayan ang epekto ng kasanayang intelektuwal

sa paghubog ng mga akademikong layunin at pangarap ng mga mag-aaral sa sekundaryang antas. Ang pag-aaral na ito ay maaaring maging batayan sa pagbuo ng mga estratehiya at programa na magpapalakas sa akademikong pag-unlad ng mga kabataan.

Ang mga napiling kalahok sa kasalukuyang pag-aaral ay ang isang daan at limampung (150) mag-aaral sa antas ng sekundarya sa Carmen District, Davao del Norte. Ang instrumento sa kasalukuyang pananaliksik ay mga inangkop na mga talatanungan na nahahati sa dalawang bahagi. Ang mga talatanungan ay dumaan sa masusing pagsusuri ng mga eksperto upang masigurado ang validity at reliability nito.

Sa konklusyon, ang pag-aaral na ito ay naglalayong makakuha ng mahahalagang impormasyon mula sa isinagawang survey upang tuklasin ang koneksyon at impluwensya ng kognitibong kamalayan sa kasanayang intelektuwal at akademikong mithiin ng mga mag-aaral. Sa pamamagitan ng pagsusuri sa nakalap na datos, layunin ng pananaliksik na ipaliwanag kung paano maaaring magsilbing moderating factor ang kamalayan ng mga mag-aaral sa kanilang sariling proseso ng pag-iisip sa relasyon ng kanilang intelektuwal na kasanayan at akademikong layunin. Inaasahan na ang pagsisiyasat na ito ay magbibigay ng mas malalim na pag-unawa sa mga dinamiko ng mga baryabol na ito, na magbibigay-diin sa potensyal na epekto ng kognitibong kamalayan sa akademikong landas ng mga mag-aaral.



## PAMAMARAAN NG PANANALIKSIK

Upang makamit ang pangunahing layunin ng pag-aaral na mailahad makabuluhang epekto ng kognitibong kamalayan sa ugnayan sa pagitan ng kasanayang intelektuwal at akademikong mithiin ng mga mag-aaral sa antas ng sekundarya ay ginamit ng mananaliksik ang deskriptib na pamamaraan sa pananaliksik gamit ang korelasyunal na teknik. Sa pag-aaral na ito, ang deskriptib na pamamaraan ay naglalayong matukoy ang mga antas ng kasanayang intelektuwal, akademikong mithiin, at kognitibong kamalayan ng mga mag-aaral sa antas ng sekundarya.

Ang mga napiling kalahok ng mananaliksik sa kasalukuyang pag-aaral ay ang mga mag-aaral sa antas ng sekundarya sa Carmen District, Davao del Norte. Isang daan at limampu (150) ang dami ng mga kalahok na inimitahan ng mananaliksik na sumali sa gagawing pag-aaral tungkol sa kasanayang intelektuwal, akademikong mithiin, at kognitibong kamalayan ng mga mag-aaral sa antas ng sekundarya. Ang bilang ng mga kalahok ay ibinatay sa resultang lumabas sa pormula ni Slovin. Ang *stratified random* sampling na pamamaraan ay ginamit sa pagtukoy ng bilang ng mga kalahok.

Ang instrumento sa kasalukuyang pananaliksik ay nahahati sa dalawang bahagi. Ang unang bahagi ay tungkol sa kasanayang intelektuwal ng mga mag-aaral sa antas ng sekundarya na halaw mula sa pag-aaral ni Naserieh (2009). Ang talatanungan na ito ay may mga pahayag na nahahati ayon sa pagiging matanong; kritikal na pag-iisip; kasanayan sa pagsusuri; at pagiging bukas ng isipan. Ang ikalawang bahagi ng instrumento ay tumutukoy sa akademikong mithiin ng mga mag-aaral sa antas ng sekundarya. Ang talatanungan ay inangkop at may kaunting binago mula sa talatanungan na halaw sa pag-aaral ni Waugh (2001). Ang talatanungan na ito ay may mga pahayag na nahahati ayon sa oryentasyon sa layuning panghabambuhay; interes sa pag-aaral; at sigasig sa pag-aaral.

Sa pagtatapos, ang disenyo ng pananaliksik na ginamit sa pag-aaral na ito ay isang kwantitatibong deskriptibong korelasyonal na pamamaraan. Ang paraang ito ay ginagamit upang sistematikong suriin at ilarawan ang mga relasyon sa pagitan ng mga baryabol nang hindi binabago ang mga ito. Ang pangunahing instrumento ng pananaliksik na ginamit upang kolektahin ang datos ay ang surbey, na nagbibigay-daan para sa pagkuha ng mga detalyado at komprehensibong mga sagot mula sa mga kalahok. Sa pamamagitan ng pagsasagawa ng ganitong paraan, layunin ng pag-aaral na magbigay ng masusing pagsusuri sa mga korelasyon sa pagitan ng mga baryabol na tinutukoy, na nag-aalok ng mahahalagang pananaw batay sa mga kolektadong datos mula sa surbey.

## RESULTA AT TALAKAYAN

Ang mga natuklasan ng pag-aaral ay batay sa mga datos na nakuha mula sa mga surbey na nakatuon sa kognitibong kamalayan at ang mga epekto nito sa intelektuwal na kasanayan at akademikong mga mithiin ng mga mag-aaral sa antas ng sekundarya. Ang nakalap na datos ay sumailalim sa masusing pagsusuri.

Ang unang temang lumitaw ay ang Kasanayang Intelektuwal ng mga Mag-aaral sa Antas ng Sekundarya, na may mga subtema ng Pagiging Matanong, Kritikal na Pag-iisip, Kasanayan sa Pagsusuri, at Pagiging Bukas ng Isipan. Sinasabi ng lahat na ang kasanayan sa pagtanong ng mapanuring mga tanong, pagpapahayag ng sariling interes at kuryosidad, at pagsasama bilang aktibong kalahok sa kanilang pag-aaral, kasanayang mag-isip nang lohikal, magtanong, at maglabas ng kritikal na pagtingin sa mga konsepto at ideya, kakayahang mag-isip nang kritikal at magkaroon ng malalim na pagsusuri sa iba't ibang aspeto ng kanilang pag-aaral, at pagiging bukas sa pag-aaral, pagbabago, at pag-unlad sa pamamagitan ng maingat na pagsusuri at pag-iisip ay paminsan-minsang nagaganap lamang sa mga oras ng klase.

Ang ikalawang temang lumitaw ay ang Akademikong Mithiin ng mga Mag-aaral sa Antas ng Sekundarya. Nagpapahiwatig ito na ang layunin na magtagumpay hindi lamang sa kasalukuyang yugto ng edukasyon kundi pati na rin sa kanilang pangmatagalang pag-unlad at pag-aaral sa buong buhay, at ang pangmatagalang at masusing layunin na batay sa kanilang mga personal na interes at nais na magkaroon ng kaalaman sa iba't ibang larangan ng edukasyon ay paminsan-minsang nangyayari sa klase. Habang ang masigasig na pakikibahagi, malikhaing paggalugad ng paksa at pagbuo ng mga makabagong ideya, pagmumungkahi ng mga nobelang solusyon, at pag-aambag ng mga pagsulong sa loob ng larangan ay madalas na nagaganap sa loob ng klase.

Ang ikatlong tema naman ay ang *Ugnayan ng Kasanayang Intelektuwal at Akademikong Mithiin ng mga Mag-aaral sa Antas ng Sekundarya* kung may Namamagitan na Modireytor. Ang pangkalahatang resulta ay nagpapakita ng makabuluhang ugnayan sa pagitan ng nasabing mga baryabol. Ito ay nagpapahiwatig na ang kognitibong kamalayan ay naglalarawan ng kamalayan ng mag-aaral sa kanilang sariling utak at kung paano nila ito magamit para sa kanilang pag-aaral.

Sa kabuuan, natuklasan sa pag-aaral na mayroong makabuluhang ugnayan sa pagitan ng kasanayang intelektuwal at akademikong mithiin ng mga mag-aaral sa antas ng sekundarya kung may namamagitan na modireytor (kognitibong kamalayan). Ipinapaliwanag ng correlation coefficient,  $r = 0.654$ , na sa bawat pagbabago sa malayang baryabol (kasanayang intelektuwal) ay may katumbas na makabuluhang pagbabago sa di-malayang baryabol (akademikong mithiin) kung may namamagitan na modireytor (kognitibong kamalayan).

Ang kasanayang intelektuwal ng mga mag-aaral sa antas ng sekundarya ay paminsan-minsang nangyayari sa loob ng klase. Ang kasanayang intelektuwal ng mga mag-aaral sa antas ng sekundarya kung susuriin ayon sa pagiging matanong; kritikal na pag-iisip; kasanayan sa pagsusuri; at pagiging bukas ng isipan ay paminsan-minsang nangyayari sa loob ng klase. Ito ay nagpapahiwatig na ang kakayahan ng isang mag-aaral na magamit ang kanilang isipan at kakayahan sa pangkalahatang pagsasanay at pag-unlad ay paminsan-minsang nangyayari sa loob ng klase.



Ang akademikong mithiin ng mga mag-aaral sa antas ng sekondarya ay paminsan-minsang nangyayari sa loob ng klase. Ang akademikong mithiin ng mga mag-aaral sa antas ng sekondarya kung susuriin ayon sa oryentasyon sa layuning panghabambuhay at interes sa pag-aaral ay paminsan-minsang nangyayari sa loob ng klase, habang, ang akademikong mithiin ng mga mag-aaral sa antas ng sekondarya kung susuriin ayon sa sigasig sa pag-aaral ay madalas nangyayari sa loob ng klase. Ito ay nagpapahiwatig na layunin ng isang mag-aaral sa larangan ng edukasyon, kung paano nila nais makamit ang mga ito, at kung paano ang kanilang mga pangarap ay nag-aambag sa kanilang pag-unlad ay paminsan-minsang nangyayari sa klase.

Para sa rekomendasyon, ang mga tagapangasiwa ng Kagawaran ng Edukasyon ay inaasahang itaguyod ang integrasyon ng mga programa at patakaran na naglalayong mapalawak at mapabuti ang kognitibong kamalayan at kasanayang intelektuwal ng mga mag-aaral. Inaasahang ang mga punongguro ay magtakda ng mga professional development sessions para sa mga guro upang mapabuti ang kanilang kaalaman at kasanayan sa pagtuturo ng mga strategiyanag nagpapalakas ng kognitibong kamalayan. Ang mga guro ay inaasahang palakasin ang komunikasyon at ugnayan sa mga magulang upang maging kasangkapan sa pagpapaunlad ng kognitibong kamalayan at akademikong mithiin ng mga mag-aaral. Ang mga mag-aaral naman ay inaasahang aktibong makiisa sa mga klase at sumali sa mga extracurricular activities na nagpapalawak ng karanasan at nagpapalalim ng kasanayang intelektuwal. At upang mas mapalalim pa ang pag-aaral, ang mga mananaliksik sa hinaharap ay inaasahang isama ang mas malawak na demograpikong datos tulad ng iba't ibang uri ng paaralan (publiko at pribado), mga rehiyon, at mga sektor ng lipunan upang makita ang mga pagkakaiba-iba at mga partikular na pangangailangan ng iba't ibang grupo ng mag-aaral.

## TALASANGGUNIAN

1. Alavi, S., & Toozandehjani, H. (2017). *The Relationship between Learning Styles and Students' Identity Styles*. *Open Journal of Psychiatry* 7:90- 102. <https://www.scirp.org/journal/paperinformation.aspx?paperid=75818>
2. Albalate, A., Larcia, H., & Jaen, J. (2018). *Students' motivation towards science learning of STEM students of University of Batangas, Lipa City*. Retrieved from <https://www.grdspublishing.org/index.php/people/article/view/1045/910>
3. Albeshitawi, A. E. M. (2017). *Learning styles preferences of EFL learners at Al-Ghad International College for Health Science-Saudi Arabia- DAMMAM*. *International Journal of English Language Literature in Humanities*, 5(4), 215-220.
4. Alsafi, A. (2011). *Learning style preferences of Saudi Medical students*. Master thesis. Essex University. Retrieved from <http://www.essex.ac.uk/linguistics/dissertations/2010/docs/Alsafi.pdf>
5. Altındağ, M., & Senemoğlu, N. (2013). *Metacognitive skills scale*. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*. *Hacettepe University Journal of Education*, 28(1), 15-26.
6. Applegate, A. J., & Applegate, M. D. (2010). *A study of thoughtful literacy and the motivation to read*. *Reading Teacher*, 64(4), 226-234. Retrieved from <http://10.1598/RT.64.4.1>
7. Aydin, S. (2012). *A review of research on Facebook as an educational environment*. *Education Tech Research Development Journal*, 60(6), 1093-1106. Retrieved from <https://eric.ed.gov/?id=EJ986750>
8. Aypay, A., & Eryilmaz, A. (2011). *Investigation of the relationship between high school students' motivation to class engagement and school burnout*. *Mehmet Akif Ersoy University Journal of Education Faculty*, 11(21), 26-44.
9. Bambaeroo, F., & Shokrpour, N. (2017). *The impact of the teachers' non-verbal communication on success in teaching*. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5346168/>
10. Banas, R. (2018). *Perceptual learning styles of students and its effect to their academic performance*. *International Journal of Trend in Scientific Research and Development*, 3(1), 401-409. Retrieved from [https://www.academia.edu/38633256/Perceptual\\_Learning\\_Styles\\_of\\_Students\\_and\\_its\\_Effect\\_to\\_Their\\_Academic\\_Performance](https://www.academia.edu/38633256/Perceptual_Learning_Styles_of_Students_and_its_Effect_to_Their_Academic_Performance)
11. Barman, A., Aziz, R., & Yusoff, Y. (2014). *Learning style awareness and academic performance of students*. *South East Asian Journal of Medical Education*, 8(1), 47-51. [https://www.researchgate.net/publication/278412600\\_Learning\\_style\\_awareness\\_and\\_academic\\_performance\\_of\\_students](https://www.researchgate.net/publication/278412600_Learning_style_awareness_and_academic_performance_of_students)
12. Barse, M. (2015). *Schools to blame for unmotivated students*. <https://sciencenordic.com/children-and-adolescents-denmark-learning/schools-to-blame-forunmotivated-students/1421116>.
13. Biçer, D. (2014). *The effect of students' and instructors' learning styles on achievement of foreign language preparatory school students*. *Social and Behavioral Sciences*, 141, 382-386. Retrieved from <https://www.sciencedirect.com/science/article/pii/S1877042814034910>
14. Borokhovski, E., Tamim, R. M., Bernard, R. M., Abrami, P. C., & Sokolovskaya, A. (2012). *Are contextual and design student-student interaction treatments equally effective in distance education? A follow-up meta-analysis of comparative empirical studies*. *Distance Education*, 33(3), 311-329.
15. Bosman, A., & Schulze, S. (2018). *Learning style preferences and Mathematics achievement of secondary school learners*. *South African Journal of Education*, 38(1), 1-8. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1173186.pdf>
16. Brame, C. J., & Biel, R. (2015). *Setting up and facilitating group work: Using cooperative learning groups effectively*. *Vanderbilt University Center for Teaching*. <http://cft.vanderbilt.edu/guides-sub-pages/setting-up-and-facilitating-group-work-using-cooperative-learning-groups-effectively/>.
17. Breckler, J., Teoh, C. S., & Role, K. (2011). *Academic performance and learning style self-predictions by second language students in an introductory biology course*. *Journal of the Scholarship of Teaching and Learning*, 11(4), 26-43. Retrieved from <https://josotl.indiana.edu/article/viewFile/1835/1832>



18. Brophy, J. (2010). *Motivating students to learn – third edition*. New York: Routledge.
19. Brown, B. (2014). *The impact of self-Efficacy and motivation characteristics on the academic achievement of upward bound participants*. Retrieved from <https://aquila.usm.edu/cgi/viewcontent.cgi?article=1429&context=dissertations>
20. Capen, R. (2010). *The role of the teacher and classroom environment in reading motivation*. *Illinois Reading Council Journal*, 38(4), 20-25. Retrieved from <https://link.springer.com/article/10.1007/BF03340978>
21. Castiglia, B. (2010). *Factors driving student motivation*. Retrieved from <http://www.abeweb.org/proceedings/proceedings06/astiglia.pdf>
22. Chieke, J. C. (2015). *Constraints on the effective implementation of adult education programmes and the way forward in Otuocha Educational zone of Anambra state*. *The International Journal of Educational Research and Development*, 5(10), 59-65. Retrieved from <https://www.ijern.com/journal/2015/July-2015/22.pdf>
23. Chieke, J. C., Ewelum, J. N., & Madu, C. O. (2017). *Determination of auditory and visual learning styles of adult learners in adult literacy Centres in Anambra State, Nigeria*. *IOSR Journal of Research & Method in Education (IOSR-JRME)*, 7(3), 30-33. Retrieved from <http://www.iosrjournals.org/iosr-jrme/papers/Vol-7%20Issue-3/Version-5/E0703053033.pdf>
24. Christenson, S. L., Reschly, A. L., & Wylie, C. (2012). *Handbook of Research on Student Engagement*. New York: Springer. Retrieved from <https://doi.org/10.1007/978-1-4614-2018-7>
25. Clinkenbeard, P.R. (2012). *Motivation and gifted students: Implications of theory and research*. *Psychology in the Schools*, 49(7), 622-630. Retrieved from [https://www.arts.unsw.edu.au/sites/default/files/document/s/Motivation\\_and\\_Gifted\\_Students.pdf](https://www.arts.unsw.edu.au/sites/default/files/document/s/Motivation_and_Gifted_Students.pdf)
26. Cohen, S. D., & Wolvin, A. D. (2011). *Listening to stories: An initial assessment of student listening characteristics*. *Listening Education*, 2, 16-25. Retrieved from <http://scholar.google.com/citations?user=MDHs95IAAAA&hl=en>
27. Cukurova, M. (2014). *An investigation of an independent learning approach in University level chemistry: The effects on students' knowledge, understanding and intellectual attributes*. <https://theses.whiterose.ac.uk/7160/1/Mutlu%20Cukurova-%20PhD%20Thesis.pdf>
28. Decuyper, S., Dochy, F., & Van den Bossche, P. (2010). *Grasping the dynamic complexity of team learning. An integrative systemic model for effective team learning*. *Educational Research Review*, 5, 111-133. Retrieved from [www.elsevier.com/locate/EDURE](http://www.elsevier.com/locate/EDURE)
29. Daud, S. (2014). *Learning styles of medical students*. *South East Asian Journal of Medical Education*, 8(1), 40-46. Retrieved from <https://seajme.sljol.info/articles/abstract/10.4038/seajme.v8i1.123/>
30. D'cruz, S.M., Rajaratnam, N., & Chandrasekhar, M. (2013). *Learning styles of first year medical students studying physiology in Tamil Nadu*. *International Journal of Medical Research & Health Sciences*, 2(3), 321-327. Retrieved from <https://scholar.google.com/citations?user=WoSbqyoAAAA&hl=en>
31. Dung, P., & Florea, A. (2012). *An approach for detecting learning styles in learning management systems based on learners' behaviors*. *International Conference on Education and Management Innovation IPEDR* (30). IACSIT Press, Singapore.
32. Durmuscelebi, M. (2013). *Examining candidate teachers' learning styles by some variables*. *International Journal of Academic Research*, 5(3), 210-219. Retrieved from Ebscohost. Web. 17.
33. Ediger, M. (2013). *Managing the classroom: A very salient responsibility in teaching and learning situations is classroom management*. *Journal on Educ Management*, 134(1), 15-18. Retrieved from Ebscohost. Web. 17. Oct. 2014.
34. Eridemir, N., & Bakirci, H. (2009). *The change and the development of attitudes of science teacher candidates towards branches*. *Kastamonu Education Journal*, 161-170.
35. Eryilmaz, A., Yildiz, İ., & Akın, S. (2011). *Investigating of relationships between attitudes towards physics laboratories, motivation and amotivation for the class engagement*. *Eurasian Journal. Physics Chemistry Education (Special Issue)*, 59-64.
36. Fatemeh, V., & Camellia, T. (2018). *The effect of teaching based on dominant learning style on nursing students' academic achievement*. *Nurse Education in Practice*, 28, 103-108. <https://pubmed.ncbi.nlm.nih.gov/29065318/>
37. Fenning, B., & May, L. (2013). *Where there is a will, there is an A: Examining the roles of self-efficacy and self-concept in college students' current educational attainment and career planning*. *Social Psychology of Education*, 16(4).
38. Froiland, J. M., Oros, E., Smith, L., & Hirschert, T. (2012). *Intrinsic motivation to learn: The nexus between psychological health and academic success*. *Contemporary School Psychology*, 16(1), 91-100
39. Gambrell, L. B. (2011). *Motivation in the school reading curriculum*. *Journal of Reading Education*, 37(1), 5-14. Retrieved from <https://rdlg579.files.wordpress.com/2015/06/motivation-in-the-school-reading-curriculum-gambrell-copy.pdf>
40. Gardner, R. C. (2010). *Motivation and second language acquisition. The socioeducational model*. New York: Peter Lang Publishing, Inc.
41. Ghaedi, Z., & Jam, B. (2014). *Relationship between learning styles and motivation for higher education in EFL students*. *Theory and Practice in Language Studies*, 4(6), 1232-1237. Retrieved from <https://pdfs.semanticscholar.org/c9d2/ede27f57e5cf85aee12f3565b23762d1767f.pdf>
42. Gilakjani, A. P. (2012). *Visual, auditory, kinaesthetic learning styles and their impacts on English Language Teaching*. Retrieved from <http://brainbutter.com.au/wp/wp-content/uploads/2013/01/Visual-Auditory-Kinaesthetic-.pdf>
43. Gilakjani, A. P., & Ahmadi, S.M. (2011). *The Effect of visual, auditory, and kinaesthetic learning styles on language teaching*. Retrieved from <http://www.ipedr.com/vol5/no2/104-H10249.pdf>
44. Goldman, D. (2017). *Cultivating engagement through student-centered learning in a high school media art class*. *Dominican University of California*.



- [https://scholar.dominican.edu/cgi/viewcontent.cgi?article=1268&context=m\\_asters-theses](https://scholar.dominican.edu/cgi/viewcontent.cgi?article=1268&context=m_asters-theses)
45. Graf, S. L., & Kinshuk. (2010). Analysis of learners navigational behavior and their learning styles in an online course. *Journal of Computer Assisted Learning*, 26(2), 116-131. Retrieved from [http://sgraf.athabascau.ca/publications/graf\\_liu\\_kinshuk\\_JCAL10.pdf](http://sgraf.athabascau.ca/publications/graf_liu_kinshuk_JCAL10.pdf)
46. Griss, S. (2013). The power of movement in teaching and learning. *Education Week Teacher*. Retrieved from [www.edweek.org](http://www.edweek.org).
47. Guido, R. (2013). Attitude and motivation towards learning physics. *International Journal of Engineering Research and Technology*, 2(11), 95-111. Retrieved from <https://arxiv.org/ftp/arxiv/papers/1805/1805.02293.pdf>
48. Guido, R., & Dela Cruz R. (2011). Factors affecting academic performance of BS astronomy technology students. *RTU-Academic Journal*, 4, 205-238. Retrieved from <https://www.semanticscholar.org/paper/Factors-Affecting-Academic-Performane-of-BS-Cruz-Guido/43756befef97b050aa12d68c77134ecabbfed4d3>
49. Güvenç, H., & Koç, C. (2016). Middle school students' engagement & disaffection and help-seeking tendencies. *Trakya University. Journal of Social Science*, 18(2), 347-366.
50. Hargadon, S. (2010). Learning style theory versus sustained hard work. Retrieved from [www.stevhargadon.com/2010/learningstyles-theory-versussustained.html](http://www.stevhargadon.com/2010/learningstyles-theory-versussustained.html).
51. Hatami, S. (2013). Learning styles. *ELT Journal*, 67, 488-490. doi: 10.1093/elt/ccs083
52. Henning, E. (2013). Teachers' understanding of mathematical cognition in childhood: Towards a shift in pedagogical content knowledge? *Perspectives in Education*, 31(3), 139-154. Retrieved from [https://www.researchgate.net/publication/289484856\\_Teachers'\\_understanding\\_of\\_mathematical\\_cognition\\_in\\_childhood\\_Towards\\_a\\_shift\\_in\\_pedagogical\\_content\\_knowledge](https://www.researchgate.net/publication/289484856_Teachers'_understanding_of_mathematical_cognition_in_childhood_Towards_a_shift_in_pedagogical_content_knowledge)
53. Horowitz, S. (2012). The universal sense: How hearing shapes the mind. Retrieved from <https://www.bloomsbury.com/us/the-universal-sense-9781608198849/>
54. Hubert, B. (2017). Cognitive self-regulation and social functioning among French children: A longitudinal study from kindergarten to first grade. Retrieved from <https://onlinelibrary.wiley.com/doi/full/10.1002/pchj.160>
55. İlçin, N., Tomruk, M., Yeşilyaprak, S. S., Karadibak, D., & Saoci, S. (2018). The relationship between learning styles and academic performance in Turkish physiotherapy students. *BMC Medical Education*, 18, 291-294. Retrieved from <https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-018-1400-2>
56. Ismail, M., Shah, A., Ismail, Y., Esa, Z., & Muhamad, A. J. (2013). Language learning strategies of English for specific purposes students at a public university in Malaysia. *English Language Teaching*, 6(1), 153-161. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1076808.pdf>
57. Jhaish, M. A. (2010). The relationship among learning styles, language learning strategies, and the academic achievement among the English Majors at Al-Aqsa University. Retrieved from <https://library.iugaza.edu.ps/thesis/90213.pdf>
58. Johnson, D., & Johnson, R. T. (2018). Cooperative learning: The foundation of active learning. <https://www.intechopen.com/books/active-learning-beyond-the-future/cooperative-learning-the-foundation-for-active-learning>
59. Kayalar, F., & Kayalar, F. (2017). The effects of auditory learning strategy on learning skills of language learners (Students' Views). Retrieved from <https://www.researchgate.net/publication/320880247>
60. Khan, Arif, Yousof (2019). A Study of Relationship between Learning Preferences and Academic Achievement. *Bulletin of Education and Research*, 41(1), 17-32. <https://files.eric.ed.gov/fulltext/EJ1217902.pdf>
61. Koca, F. (2016). Motivation to Learn and Teacher-Student Relationship. *Journal of International Education and Leadership*, 6(2), 1-20. <https://files.eric.ed.gov/fulltext/EJ1135209.pdf>
62. Komarraju, M., Karau, S. J., Schmeck, R. R., & Avdic, A. (2011). The big five personality traits, learning styles, and academic achievement. *Personality and Individual Differences*, 51, 472-477. Retrieved from <https://psycnet.apa.org/record/2011-14164-022>
63. Kubat, U. (2018). Identifying the Individual Differences Among Students During Learning and Teaching Process by Science Teachers. *International Journal of Research in Educational and Science*, (IJRES), 4(1), 30-38. DOI:10.21890/ijres.369746
64. Kyndt, E., Raes, E., Lismont, B., Timmers, F., Cascallar, E., & Dochy, F. (2013). A meta-analysis of the effects of face-to-face cooperative learning. Do recent studies falsify or verify earlier findings? *Educational Research Review*, 10, 133-149. Retrieved from <https://daneshyari.com/article/preview/355161.pdf>
65. Lai, E. R. (2011). Motivation: a literature review – research report. Retrieved from [http://www.pearsonassessments.com/hai/images/tmrs/motivation\\_review\\_final.pdf](http://www.pearsonassessments.com/hai/images/tmrs/motivation_review_final.pdf)
66. Lai, M., Luong, D., & Young, G. (2015). A study of kinesthetic learning activities effectiveness in teaching computer algorithms within an academic term. Retrieved from <http://worldcomp proceedings.com/proc/p2015/FEC2400.pdf>
67. Lee, W., & Reeve, J. (2012). Teachers' estimates of their students' motivation and engagement: being in synch with students. *Educational Psychology*, 32(6), 727-747. Retrieved from <https://doi.org/10.1080/01443410.2012.732385>
68. Lu, T., & Yang, X. (2018). Effects of the visual/verbal learning style on concentration and achievement in mobile learning. Retrieved from <http://www.ejmste.com/Effects-of-the-Visual-Verbal-Learning-Style-on-Concentration-and-Achievement-in-Mobile,85110,0,2.html>
69. Magulod, G. C. Jr. (2017). Creativity Styles and Emotional Intelligence of Filipino Student Teachers: A Search for Congruity. *Asia Pacific Journal of Multidisciplinary Research*, 5(1), 175-184. Retrieved from <http://www.apjmr.com/wp-content/uploads/2017/01/APJMR-2017.5.1.20.pdf>
70. Maranan, V. (2017). Basic process skills and attitude towards science: Input to an enhanced students' cognitive performance. Retrieved from



- <https://files.eric.ed.gov/fulltext/ED579181.pdf>
73. Mbatha, S. (2015). *The relationship between self-efficacy, motivation, and academic performance among students from various gender and generational groups*. Retrieved from <http://scholar.ufs.ac.za:8080/xmlui/bitstream/handle/11660/4592/MbathaS.pdf?sequence=1>
74. Metzler, R. (2016). *The academic effects of kinesthetic movement with multiplication fact acquisition instruction for students in third grade*. Retrieved from [https://mdsoar.org/bitstream/handle/11603/2849/Metzler.AR.5.11.16.Finis\\_hed.pdf?sequence=1&isAllowed=y](https://mdsoar.org/bitstream/handle/11603/2849/Metzler.AR.5.11.16.Finis_hed.pdf?sequence=1&isAllowed=y)
75. Meyer, E. J. (2010). *Transforming school cultures. Gender and Sexual Diversity in Schools*. X, 121-139. Retrieved from [http://dx.doi.org/10.1007/978-90-481-8559-7\\_7](http://dx.doi.org/10.1007/978-90-481-8559-7_7)
76. Minner, D. D., Levy A. J., & Century J. (2010). *Inquiry-based science instruction – What is it and does it matter? Results from a research synthesis, years 1984 to 2002*. *Journal of Research in Science Teaching*, 47(4), 474-496. Retrieved from [http://math.kendallhunt.com/Documents/seattle/Minner\\_Inquiry-Based.pdf](http://math.kendallhunt.com/Documents/seattle/Minner_Inquiry-Based.pdf)
77. Mitra, D. L., & Serriere, S. C. (2012). *Student Voice in Elementary School Reform Examining Youth Development in Fifth Graders*. *American Educational Research Journal*, 49(4), 743-774. <http://dx.doi.org/10.3102/0002831212443079>
78. Moradi, A. M. (2013). *Non-verbal communication skills*. Retrieved from [alimortezamoradi.blogfa.com/post/23](http://alimortezamoradi.blogfa.com/post/23)
79. Naik, B. (2013). *Influence of culture on learning styles of business students*. *International Journal of Education Research*, 8(1), 129-139. Retrieved from [http://www.ascd.org/publications/educational-leadership/may94/vol51/nu\\_m08/The-Culture~LearningStyle-Connection.aspx](http://www.ascd.org/publications/educational-leadership/may94/vol51/nu_m08/The-Culture~LearningStyle-Connection.aspx)
80. Naserieh, F. (2009). *The relationship between perceptual learning style preferences and skill-based learning strategies*. Retrieved from <https://asian-efl-journal.com/wp-content/uploads/mgm/downloads/01729100.pdf>
81. Nedeljković, J. (2012). *Integrative model of psychological predictors of academic non-efficacy*. Dissertation. Niš: Faculty of Philosophy.
82. Newton, P. M. (2015). *The learning style myth is thriving in higher education*. Retrieved from <https://doi.org/10.3389/fpsyg.2015.01908>
83. Palabuyik, P. Y. (2014). *Perceptual learning style preferences among Turkish junior high school students*. Retrieved from [https://www.academia.edu/7806095/Perceptual\\_Learning\\_Style\\_Preferences\\_Among\\_Turkish\\_Junior\\_High\\_School\\_Students?auto=download](https://www.academia.edu/7806095/Perceptual_Learning_Style_Preferences_Among_Turkish_Junior_High_School_Students?auto=download)
84. Parr, K. (2011). *The influence of interest and working memory on learning*. Dissertation. Florida: University of Florida.
85. Perez-Sabater, C., Montero-Fleta, B., Perez-Sabater, M., & Rising, B., (2011). *Active learning to improve long-term knowledge retention*. *Proceedings of the XII Simposio Internacional de Comunicación Social*, 4, 75-79. Retrieved from <https://www.sciencedirect.com/science/article/pii/S1877042815036277>
86. Psaltou-Joycey, A., & Kantaridou, Z. (2011). *Major, minor, and negative learning style preferences of university students*. *System*, 39, 103-112.
87. Ray, B., & Seely, C. (2012). *Fluency through TPR storytelling: Achieving real language acquisition in school (6th Edition)*. Retrieved from <https://www.amazon.com/Fluency-Through-Storytelling-Contee-Seely/dp/0929724216>
88. Roell, K. (2019). *The visual learning style*. Retrieved from <https://www.thoughtco.com/visual-learning-style-3212062>
89. Rhouma, W. B. (2016). *Perceptual learning styles preferences and academic achievement*. *International Journal of Arts & Sciences*, 09(02), 479-492. Retrieved from [https://www.academia.edu/30712785/PERCEPTUAL\\_LEARNING\\_STYLES\\_PREFERENCES\\_AND\\_ACADEMIC\\_ACHIEVEMENT?auto=download](https://www.academia.edu/30712785/PERCEPTUAL_LEARNING_STYLES_PREFERENCES_AND_ACADEMIC_ACHIEVEMENT?auto=download)
90. Saadi, I. A. (2012). *An examination of the learning styles of Saudi preparatory school students who are high or low in reading achievement*. School of education faculty of arts, education, and human development, Victoria University Melbourne, Australia. Retrieved from [http://vuir.vu.edu.au/19421/1/Ibrahim\\_Abdu\\_Saadi.pdf](http://vuir.vu.edu.au/19421/1/Ibrahim_Abdu_Saadi.pdf)
91. Sandoval-Pineda, . (2018). *Attitude, motivation and english language learning in a Mexican college context*. Retrieved from [https://arizona.openrepository.com/bitstream/handle/10150/145743/azu\\_etd\\_11639\\_sip1\\_m.pdf?sequence=1&isAllowed=y](https://arizona.openrepository.com/bitstream/handle/10150/145743/azu_etd_11639_sip1_m.pdf?sequence=1&isAllowed=y)
92. Schmid, R. F., Bernard, R. M., Borokhovski, E., Tamim, R. M., Abrami, P. C., & Surkes, M. A. (2014). *The effects of technology use in postsecondary education: a meta-analysis of classroom applications*. *Computers & Education*, 72, 271-291. Retrieved from <https://dl.acm.org/citation.cfm?id=2754110>
93. Seifoori, Z., & Zarei, M. (2011). *The relationship between Iranian EFL learners' perceptual learning styles and their multiple intelligences*. *Procedia-Social and Behavioral Sciences*, 29, 1606-1613. Retrieved from <https://www.sciencedirect.com/science/article/pii/S1877042811028709>
94. Sever, M., Ulubey, Ö., Toraman, Ç., & Türe, E. (2014). *An analysis of high school students' classroom engagement in relation to various variables*. *Education and Science*, 39(176), 183-198. Retrieved from <https://doi.org/10.15390/EB.2014.3633>
95. Shoval, E., & Shulruf, B. (2011). *Who benefits from cooperative learning with movement activity? School Psychology International*, 32(1), 58-72. Retrieved from Ebscohost. Web. 17.
96. Shuib, M., & Azizan, S. N. (2015). *Learning style preferences among male and female ESL students in Universiti-Sains Malaysia*. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1068392.pdf>
97. Sikhwari, T. D. (2014). *A Study of the relationship between motivation, self-concept and academic achievement of students at a University in Limpopo Province, South Africa*. Retrieved from <http://krepublishers.com/02-Journals/IJES/IJES-06-0-000-14-Web/IJES-06-1-000-14-ABST-PDF/IJES-06-1-019-14-123-Sikhwari-T-D/IJES-06-1-019-14-123-Sikhwari-T-D-Tt.pdf>



98. Strauss, V. (2013). *Howard Gardner: Multiple intelligences are not learning styles*. Retrieved from <http://www.washingtonpost.com/blogs/answer-sheet/wp/2013/10/16/howard-gardner-multiple-intelligences-are-not-learning-styles/>
99. Soyogul, E.C. (2015). *Students' motivational beliefs and learning strategies: An investigation of the scholar development program*. Retrieved from <http://www.thesis.bilkent.edu.tr/0006876.pdf>
100. Svobodová, L. (2015). *Factors affecting the motivation of secondary school students to learn the English language*. Retrieved from [http://is.muni.cz/th/363215/pedf\\_m/Diploma\\_Thesis\\_Svobodova.pdf](http://is.muni.cz/th/363215/pedf_m/Diploma_Thesis_Svobodova.pdf)
101. Syofyan, R., & Siwi, M. K. (2018). *The impact of visual, auditory, and kinesthetic learning styles on economics education teaching*. *Advances in Economics, Business and Management Research*, 57, 642-649. <http://creativecommons.org/licenses/by-nc/4.0/>
102. Tabatabaei, O., & Mashayekhi, S. (2013). *The relationship between EFL l learning styles and their L2 achievement*. *Procedia - Social and Behavioral Sciences*, 70, 245-253. Retrieved from <https://www.sciencedirect.com/science/article/pii/S1877042813000621>
103. Tasgin, A., & Tunc, Y. (2018). *Effective participation and motivation: An investigation on secondary school students*. *World Journal of Education*, 8(1), 58-74. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1173992.pdf>
104. Teevan, C.J., Michael, L.I., Schlesselman, L.S. (2011). *Index of Learning styles in a U.S. school of pharmacy*. *Pharmacy Pract*, 9(2), 82-87. Retrieved from <http://dx.doi.org/10.4321/S1886-36552011000200004>
105. Thoe, N., Thah, S., & Fook, F. (2010). *Development of a questionnaire to evaluate students' perceived motivation towards science learning incorporating ICT tool*. Retrieved from [http://www.mjjet-meta.com/resources/5%20-%20V10N1%20-%20NKT%20-%20SMS\\_JrnlArtMyJET.pdf](http://www.mjjet-meta.com/resources/5%20-%20V10N1%20-%20NKT%20-%20SMS_JrnlArtMyJET.pdf)
106. Ting, Y. L. (2013). *Using mobile technologies to create interwoven learning interactions: An intuitive design and its evaluation*. *Computers & Education*, 60(1), 1-13. Retrieved from <https://www.learntechlib.org/p/132158/>
107. Tuli, T. (2015). *A Study on the Similarities and Differences in Learning Styles between English Medium and Bengali Medium Learners*. Retrieved from <http://dspace.bracu.ac.bd/xmlui/bitstream/handle/10361/4977/final.pdf?sequence=1&isAllowed=y>
108. Vaseghi, R., Barjesteh, H., & Shakib, S. (2013). *Learning style preferences of Iranian EFL high school students*. *International Journal of Applied Linguistics & English Literature*, 2(4), 83-89. Retrieved from <http://dx.doi.org/10.7575/aiac.ijalel.v.2n.4p.83>
109. Vaseghi, R., Ramezani, A. E., & Gholami, R. (2012). *Language learning style preferences: A theoretical and empirical study*. *Advances in Asian Social Science (AASS)*, 2(2), 441-451. Retrieved from [www.worldsciencepublisher.org](http://www.worldsciencepublisher.org)
110. Velki, T. (2011). *The correlation considering the degree of autonomous motivation, academic achievement and mental health*. *Croatian Journal of Education*, 13, 56-87.
111. Williams, K. C., & Williams, C. C. (2011). *Five key ingredients for improving student motivation*. *Research in Higher Education Journal*, 12(1), 11-12. Retrieved from [https://scholarsarchive.library.albany.edu/cgi/viewcontent.cgi?article=1000&context=math\\_fac\\_scholar](https://scholarsarchive.library.albany.edu/cgi/viewcontent.cgi?article=1000&context=math_fac_scholar)
112. Wrenn, J., & Wrenn, B. (2009). *Enhancing Learning by Integrating Theory and Practice*. *International Journal of Teaching and Learning in Higher Education*, 21(2), 258-265. Retrieved from <https://files.eric.ed.gov/fulltext/EJ899313.pdf>
113. Yilmaz, E., Sahin, M., & Turgut, M. (2017). *Variables affecting student motivation based on academic publications*. *Journal of Education and Practice*, 8(12), 112-120. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1140621.pdf>
114. Zeidan A. H., & Jayosi M. R. (2015). *Science process skills and attitudes toward science among Palestinian secondary school students*. *World Journal of Education*. ISSN 1925-0746(Print) ISSN 1925-0754. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1158460.pdf>
115. Zyngier, D. (2011). *(Re)conceptualising risk: left numb and unengaged and lost in a no-man's-land or what (seems to) work for at-risk students*. *International Journal of Inclusive Education*, 15(2), 211-231. Retrieved from <http://dx.doi.org/10.1080/13603110902781427>