

Learning Styles, Teaching Strategies and Academic Achievement among some Psychology Undergraduates in Barbados

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Learners process incoming information in different ways; hence, the instructors need to vary their methods of teaching to ensure that all students learn. This study investigated the learning preferences (visual, auditory, kinaesthetic), the teaching strategies (videos, games, role-play, discussion, group work, clarification pauses, five-minute-paper, discussion forum and glossary activity) and their influence on the academic achievement of 171 undergraduate Psychology students at the University of the West Indies, Cave Hill Campus, Barbados. The participants completed three self-report instruments: a) Active Learning Strategies Questionnaire, b) Learning Style Survey (VAK) and c) Academic Achievement Scale. Findings revealed students' preferences for visual, auditory, kinaesthetic and multiple modes of learning styles and the majority of the students benefited from the learning strategies utilised in the classroom. Additionally, the teaching strategies and learning styles contributed 20% ($R^2 = 0.20$) to the variance in academic achievement and this was statistically significant ($F(2,168) = 21.04, p < .05$). These findings discussed the importance of utilising different teaching strategies to accommodate different learning styles and promote students' academic achievement in Psychology.

Keywords: Teaching strategies, Learning styles, Psychology, Academic achievement, Student Learning Outcomes (SLO's)

References

- Akdemir, O., & Koszalka, T. A. (2008). Investigating the relationships among instructional strategies and learning styles in online environments. *Computers and Education*, 50, 1451-1461. <http://dx.doi.org/10.1016/j.compedu.2007.01.004>
- Alberta Learning (2002). Instructional Strategies; Health and Life Skills Guide to Implementation (K-9) ©Alberta Learning, Alberta, Canada. Retrieved from: <https://education.alberta.ca/media/352984/is.pdf>
- Al-Saud, M. L. (2013). Learning style preferences of first-year dental students at King Saud University in Riyadh, Saudi Arabia: influence of gender and GPA. *Journal of Dental Education*, 77(10), 1371-8. Retrieved: <http://www.jdentaled.org/content/77/10/1371.long>
- Arthurs, J. B. (2007). A juggling act in the classroom: Managing different learning styles. *Teaching and Learning in Nursing*, 2, 2-7. Retrieved: June 16, 2015. <http://dx.doi.org/10.1016/j.teln.2006.10.002>
- Bell, J. (2007). Evaluation of learning styles and instructional methods in the NROTC Naval Operations and Seamanship Course. *Institute for Learning Style Journal*, 1, 52-61.

- Brady, C. L. (2013). Understanding learning styles: Providing the optimal learning experience. *International Journal of Childbirth Education*, 28(2), 16 -19.
- Claxton, C. S., & Ralston, Y. (1978). *Learning styles: Their impact on teaching and administration*. Washington, DC: American Association for Higher Education.
- Damrongpanit, S., & Reungtragu, A. (2013). Matching of learning styles and teaching styles: Advantage and disadvantage on ninth-grade students' academic achievements. *Educational Research and Reviews* 8(20), 1937-1947. Retrieved: June 12, 2015 doi:10.5897/ERR2013.1583
- Davis, S. E. (2007). Learning styles and memory. *Institute for Learning Styles Journal*, 1, 46-50. Retrieved from:
<http://www.auburn.edu/~witteje/ilsrj/JournalVolumes/Volume1Fall2007PDFs/LearningStyles and Memory.pdf>
- Dunn, R. S., & Griggs, S. A. (2000). *Practical approaches to using learning styles in higher education*. Westport, CT: Greenwood publishing group
- Fardon, M. (2013). Relationships between students' learning style preference and exam achievement in differing forms of assessment during an advanced apprenticeship at a vocational Further Education College. Institute of Learning, Department of Education, University of Oxford. Retrieved from:
https://set.et-foundation.co.uk/media/897442/2013_Mark-Fardon-PRP-article.pdf
- Fayombo, G. A. (2014). Enhancing learning outcomes in Psychology through active learning strategies in classroom and online learning environments. *International Journal of Learning and Development*, 4(4), 114–130. Doi:10.5296/ijld.v4i4.6703. Available at:
<http://www.macrothink.org/journal/index.php/ijld/article/view/6703/5504>
- Fayombo, G. A. (2014). Promoting student engagement and learning outcomes in psychology course through technology infused learner-centred strategies. In Veiga, F. (Coord.) *Students' Engagement in School: International Perspectives of Psychology and Education*, Lisboa. (Pp. 687-703). ISBN: 978-989-98314-8-3 Available at:
http://cieae.ie.ul.pt/2013/wp-content/uploads/2012/11/E-Book_ICIEAE.pdf
- Felder, R. M. (1996). Matters of style. *ASEE Prism*, 6(4), 18-23. Retrieved from:
<http://www4ncsu.edu/unity/lockers/users/f/felder/public/Papers/LS-Prism.htm>
- Felder, R. M., & Brent, R. (2005). Understanding student differences. *Journal of Engineering Education*, 94(1), 57-72. Retrieved from:
http://www4ncsu.edu/unity/lockers/users/f/felder/public/Papers/Understanding_Differences.pdf
- Fleming, N. D. (2006). *Teaching and learning styles: VARK strategies*. Christchurch, New Zealand : N.D. Fleming.
- Gregorc, A. (1979). *Moving Toward Self-Directed Learning*, in Della-Dora & Blanchard (Eds.). Alexandria, VA: ASCD.
- Jenkins, A. & Unwin, D. (2001) *How to write learning outcomes*. [Online] Available:
<http://www.ncgia.ucsb.edu/education/curricula/giscc/units/format/outcomes.html> August 23, 2014.
- Kennedy, D. Hyland, Á. & Ryan, N. (2012). Planning and implementing key Bologna features. *Writing and Using Learning Outcomes: a Practical Guide*. [Online] Available:
http://www.dcu.ie/afi/docs/bologna/writing_and_using_learning_outcomes.pdf
- Kolb, A., & Kolb, D. (2009). The learning way: Meta-cognitive aspects of experiential learning. *Simulation & Gaming*, 40(3), 297-327.

- Liu, Y. G. (2007). The impact of the match of teaching and learning styles on the non-English majors' achievement. *Educational Development*, 5, 27-30.
- Liu, J. F., & He, Q. S. (2014). The match of teaching and learning styles in SLA. *Creative Education*, 5, 728-733. <http://dx.doi.org/10.4236/ce.2014.510085>
- Lu, F., Zhang, Y., & Zhao, X. (2009). Compensatory effect of "Big Class" teaching strategies in tertiary English education on the mismatch of learning and teaching styles. *Foreign Languages and Their Teaching*, 4, 38-41.
- Massa, L. J., & Mayer, R. E. (2006). Testing the ATI hypothesis: Should multimedia instruction accommodate verbalizer-visualizer cognitive style? *Learning and Individual Differences*, 16, 321-335.
- Poonati, S. & Amadia, D. M. (2010). Use of popular television to enhance students' understanding of operant conditioning. *Psychology Learning and Teaching*, 9(1), 25-29
- Riding, R. J., & Cheema, I. (1991). Cognitive styles: An overview and integration. *Educational Psychology*, 11, 193 - 215.
- Riding, R. & Rayner, S. (1998). Cognitive styles and learning strategies. London: David Fulton Publishers.
- Rogers, K. M. A. (2009). A preliminary investigation and analysis of student learning styles preferences in further and higher education. *Journal of Further and Higher Education*, 33, 13-21. <http://dx.doi.org/10.1080/03098770802638234>
- Shuell, T.J. (1986). Cognitive conceptions of learning. *Review of Educational Research*, 56(4), 411-436. Retrieved May 17, 2014, doi: 10.3102/00346543056004411
- Tulbure, C. (2012). Learning styles, teaching strategies and academic achievement in higher education: A cross-sectional investigation. *Procedia - Social and Behavioral Sciences*, 33, 398 – 402. Retrieved: doi:10.1016/j.sbspro.2012.01.151
- VAK Test. Discover your Preferred Learning Style. Retrieved: June 15, 2015 http://www.brainboxx.co.uk/a3_aspects/pdf/VAK_questionnaire.pdf
- Woodridge, B. (1995). Increasing the effectiveness of university/college instruction: integrating the results of learning style research into course design and delivery. In R.R. Sims & S. J. Sims (Eds.), *The importance of learning styles* (pp. 49-67). Westport, CT: Greenwood
- Yoder, J. D. & Hochevar, C. M. (2005). Encouraging active learning can improve students' performance on examinations. *Teaching of Psychology*, 32(2), 91- 95. Retrieved: [http://www.vcu.edu/cte/workshops/workshop_list/references/Yoder %26 Hochevar.pdf](http://www.vcu.edu/cte/workshops/workshop_list/references/Yoder_%26_Hochevar.pdf)