

# Teachers' Preference and Use of Educational Technology in Low-Resource Social Studies Classrooms: An Exploratory Study

Alaba Agbatogun\*<sup>1</sup>, Biodun Ogunyemi<sup>2</sup> and Tayo Omoniyi<sup>2</sup>

<sup>1</sup>Open Learning and Educational Support, University of Guelph, Guelph, Ontario, Canada

<sup>2</sup>Faculty of Education, Olabisi Onabanjo University, Ago Iwoye, Ogun State, Nigeria

*In the 21st century, synchronous and asynchronous communications in every sector of human endeavour century is mostly driven and enhanced by varying emerging technologies. This study investigates social studies teachers' preference and use of technology. Two hundred and ninety-five (295) teachers from one State in the Southwest geopolitical zone in Nigeria constituted the sample for the study. The data for this study were collected through the use of Social Studies Teachers' Technology Awareness, Motivation and Preference Questionnaire. Using the descriptive statistics, Pearson Product Moment Correlation Coefficient, Analysis of Variance, and Multiple-regression, the data for the study was analyzed at 0.05 significance. Findings from the study reveal that most social studies teachers use more of visual media than electronic/digital media in the classrooms. Moreover, the study shows that social studies teachers' preference and use of educational technology are influenced by their highest academic qualification while their level of awareness about the value of technology in education is not gender based. All the predictive variables combined significantly to predict teachers' preference and use of technology in education.*

**Keywords:** Social studies; Low resource classrooms; Educational digital media; Technology integration

## References

- Acikalin, M. (2010) The Influence of Global Education on the Turkish social studies curriculum. *The Social Studies*, 101, 254–259.
- Adomi, E. E., & Kpangban, E. (2010). Application of ICTs in Nigerian Secondary schools. Library Philosophy and Practice. Retrieved January 15, 2013, from <http://unllib.unl.edu/LPP/adomi-kpangban.htm>
- Afshari, M., Bakar, K.A., Luan, W.S., Samah, B.A. & Fooi, F.S. (2009). Technology and School Leadership. *Technology, Pedagogy and Education*, 18(2), 235-248.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice-Hall.
- Ajzen, I. & Fishbein, M. (2000). Attitudes and the attitude-behavior relation: Reasoned and automatic processes. In W. Stroebe & M. Hewstone (Eds.), *European review of social psychology*, 1-33. John Wiley & Sons.
- Albirini, A. (2006). Teachers' attitudes toward information and communication technologies: The case of Syrian EFL teachers. *Computers & Education*, 47(4), 373–398.
- Almekhlafi, A. G. and Almeqdadi, F. A., 2010. Teachers' perceptions of technology integration in the United Arab Emirates school classrooms. *Educational Technology and Society*, 12, 165-175.
- Arteaga Sánchez, R. & Duarte Hueros, A. (2010), Motivational factors that influence the acceptance of Moodle using TAM. *Computers in Human Behavior*, 26(6), 1632-1640.

- Bachman, C. M., & Stewart, C. (2011). Self-determination theory and web-enhanced course template development. *Teaching of Psychology*, 38, 180-188.
- Bauer, J., and J. Kenton. 2005. Toward technology integration in the schools: Why it isn't happening. *Journal of Technology and Teacher Education*, 13(4), 519-46.
- Buabeng-Andoh, C. (2012). Factors influencing teachers' adoption and integration of ICT into teaching: a review of the literature. *IJEDICT*, 8(1), 136-155.
- Baytak, A., Tarman, B., & Ayas, C. (2011). Experiencing technology integration in education: Children's perspectives. *International Electronic Journal of Elementary Education*, 3 (2), 139-151.
- Becker A.J. (1986). How computers are used in United States schools: Basic data from the 1989 I.E.A. computers in education survey. *Journal of Educational computing Research*, 7, 385-406.
- Berson, M. J., & Balyta, P. (2004). Technological thinking and practice in the social studies: Transcending the tumultuous adolescence of reform. *Journal of Computing in Teacher Education*, 20(4), 141-150.
- Berson, M. J., Lee, J. K., & Stuckart, D. W. (2001). Promise and practice of computer technologies in the social studies: A critical analysis. In W. B. Stanely (Ed.), *Critical issues in social studies research for the 21st century* (pp. 209 - 229). Greenwich, CT: Information Age Publishing.
- Binghimlas, K. A. (2009). Barriers to the successful integration of ICT in teaching and learning: A Review of literature. *Eurasia Journal of Mathematics, Science and Technology Education*, 5(3), 235-245.
- Brown, K.W. & R.M. Ryan (2004). Fostering healthy self-regulation from within and without: A self-determination theory perspective, in P.A. Linley and S. Joseph (Eds.), *Positive Psychology in Practice*. New York: John Wiley & Sons, Inc. doi: 10.1002/9780470939338.ch7
- Capper, J (2003). Complexities and challenges of integrating technology into the curriculum. *Technoligia*, 60-63. Retrieved January 15, 2013, from [http://www.techknowlogia.org/TKL\\_Articles/PDF/471.pdf](http://www.techknowlogia.org/TKL_Articles/PDF/471.pdf)
- Chang, C., Yan, C., & Tseng, J (2012). Perceived convenience in an extended technology acceptance model: Mobile technology and English learning for college students. *Australasian Journal of Educational Technology* 28(5), 809-826.
- Cogan, J.J., Grossman, D., & Lei, M. (2000). Citizenship: The democratic imagination in a global context. *Social Education*, 64 (1), 48-52.
- Davis, F. D. (1986). A technology acceptance model for empirically testing new end-user information systems: Theory and results. Doctoral dissertation. Cambridge, MA: MIT Sloan School of Management.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-339.
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: a comparison of two theoretical models. *Management Science*, 35(8), 982-1002.
- Deci, E. L., & Ryan, R. M. (1985). The general causality orientations scale: Self-determination in personality. *Journal of Research in Personality*, 19, 109-134.
- Deci, E.L. & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11, 227-268.
- Diem, R. (2000, Fall). Can it make a difference? Technology and the social studies. *Theory and Research in Social Education*, 28(4), 493-501.
- Doolittle, P. E., & Hicks, D. (2003). Constructivism as a theoretical foundation for the use of technology in social studies. *Theory and Research in Social Education*, 31(1), 72-104.
- Ehman, L. H., & Bonk, C. J. (2002). *A model of teacher professional development to support technology integration*. San Francisco: American Educational Research Association.
- Federal Republic of Nigeria. (2004). *National Policy on Education*. Lagos NERDC.

- Fishbein, M., & Ajzen, I. (1975). *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*. Reading, MA: Addison-Wesley.
- Fong, M. W. L. (2009). Digital divide: The case of developing countries. *Issues in Informing Science & Information Technology*, 6, 471-478.
- Friedman, A., Bolick, C., Berson, M. & Porfeli, E. (2009). National educational technology standards and technology beliefs and practice of social studies faculty: Results from a seven year longitudinal study. *Contemporary Issues in Technology and Teacher Education*, 9(4), 476-487.
- Goos, M. (2008). Sociocultural perspectives on learning to teach mathematics. In B. Jaworski & T. Wood (Eds.), *International Handbook of Mathematics Teacher Education*, (4, pp. 75-91). Rotterdam: Sense Publishers.
- Gorder, L. M. (2008). A study of teachers' perceptions of technology integration in the classroom. *The Delta Pi Epsilon Journal*, 50(2), 63-76.
- Gulbahar, Y. & Guven, I. (2008). A survey on ICT usage and the perceptions of social studies teachers in Turkey. *Educational Technology & Society*, 11(3), 37-51.
- Hagger, M. S., & Chatzisarantis, N. L. (2012). Transferring motivation from educational to extramural contexts: A review of the trans-contextual model. *European Journal of Psychology of Education*, 27, 195-212.
- Hicks, D., Tlou, J., Lee, J., Parry, L., & Doolittle, P. (2002) Global connections: Using the Internet to support citizenship education. *International Journal of Social Education*, 17(1), 93-102.
- Jhurree, V. (2004). Technology integration in education in developing countries: Guidelines to policy makers. *International Education Journal*, 6(4), 467-483.
- Jones, A. (2004). A Review of the Research Literature on Barriers to the Uptake of ICT by Teachers. UK: British Educational Communications and Technology Agency
- Khan, S. H., Hassan, M., & Clement, C. K. (2012). Barriers to the introduction of ICT into education in developing countries: the example of Bangladesh. *International Journal of Instruction*, 5(2), 61-80.
- Larkin, K., & Finger, G. (2011). Informing one-to-one computing in primary schools: Student use of netbooks. *Australasian Journal of Educational Technology*, 27(3), 513-530.
- Lei, J., & Zhao, Y. (2007). Technology uses and student achievement: A longitudinal study. *Computers and Education*. 49(2), 284-296.
- Loong, E. (2003). Australian secondary school teachers' use of the Internet for mathematics. In L. Bragg, C. Campbell, G. Herbert & J. Mousley (Eds.) *Mathematics education research: Innovation, networking, opportunity*. Proceedings of the 26th Annual Conference of the Mathematics Education Research Group of Australasia, pp. 484-491. Sydney: MERGA.
- Mahamad, S., Ibrahim, M.N., & Taib, M.S. (2010). M-learning: A new paradigm of learning mathematics in Malaysia. *International Journal of Computer Science & Information Technology*, 2(4), 78-86.
- McKinnon, K. & Igonor, A. (2008). Explaining eLearning perceptions using the Technology Acceptance Model and the Theory of Planned Behavior. In C. Bonk et al. (Eds.), *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2008*. Chesapeake, VA: AACE. <http://www.editlib.org/p/30092>.
- McManis, L.D., & Gunnewig, S.B. (2012). Finding the education in educational technology with early learners. *Young Children: Journal of the National Association of Young Children*, 67(3), 14-25.
- Murray, J.P., Wenger, A.F.Z., Downes, E.A., & Terrazas, S.B. (2011). *Educating health professionals in low resource countries: A global approach*. New York, NY: Springer.
- Ndahi, H. 1999. Utilization of distance learning technology among industrial and technical teacher education faculty. *Journal of Industrial Teacher Education*. 36(4), 21 – 37.
- Norris, C., Sullivan, T., Poirot, J., & Soloway, E. (2003). No access, no use, no impact: Snapshot surveys of educational technology in K-12. *Journal of Research on Technology in Education*, 36(1), 15-27.

- Norton, S., McRobbie, C. J., & Cooper, T. J. (2000). Exploring secondary mathematics teachers' reasons for not using computer in their teaching: Five case studies. *Journal of Research on Computing in Education*, 33(1), 87-109.
- Obakhume, A. A. (2011). Assessment of school teachers' use of Information and Communication Technology (ICT) in Oyo metropolis of Nigeria. *Journal of Educational and Social Research*, 1(5), 131-136.
- Okobia, E. O. (2012). The teacher factor in enhancing quality assurance in the teaching/learning of social studies. *Review of European Studies*, 4(4), 148-156.
- Okobia, E. O. (2011). Social studies teachers' perception of the junior secondary school social studies curriculum in Edo state. *European Journal of Educational Studies*, 3(2), 303-309.
- Park, N. (2009). User acceptance of e-learning in higher education: An application of Technology Acceptance Model. Presented at the Annual meeting of the International Communication Association, New York.
- Peeraer, J. and Van Petegem, P. (2010). Factors Influencing Integration of ICT in Higher Education in Vietnam. In Z. Abas et al. Eds. AACE. Proceedings of Global Learn Asia Pacific, (pp. 916-924).
- Rose, S. A., & Fernlund, P. M. (1997). Using technology for powerful social studies learning. *Social Education*, 61(3), 160-166.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68-78.
- Ryan, R. M., & Deci, E. L. (2002). An overview of self-determination theory. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research*. Rochester, NY: University of Rochester Press.
- Shaver, J.P. (1999). Electronic technology and the future of social studies in elementary and secondary schools. *Journal of Education*, 181(3), 13-41.
- Schunk, D. H., Pintrich, P. R., & Meece, J. L. (2008). *Motivation in education: Theory, research, and applications* (3rd ed.). Upper Saddle River, NJ: Pearson Education.
- Shroff, R., Deneen, C., & Ng, E.M.W. (2011). Analysis of the *technology acceptance* model in examining students' behavioural intention to use an e-portfolio system. *Australasian Journal of Educational Technology*, 27(4), 600-618.
- Sim, J.C.H. & Theng, L.B. (2007). Teachers' perceptions of the use of ICT as an instructional tool in Mathematics and Science. Retrieved July 24, 2013, from [http://ictl.intimal.edu.my/ictl2007/proceeding/Full\\_Paper/1A-03-Paper%2069%20\(Malaysia\).pdf](http://ictl.intimal.edu.my/ictl2007/proceeding/Full_Paper/1A-03-Paper%2069%20(Malaysia).pdf)
- Sørebo, Ø., Halvari, H., Gulli, V. F., & Kristiansen, R. (2009). The role of self-determination theory in explaining teachers' motivation to continue to use e-learning technology. *Computers & Education*, 53(4), 1177-1187.
- Sugar, W., Crawley, F., & Fine, B. (2004). Examining teachers' decisions to adopt new technology. *Journal of Educational Technology & Society*, 7(4), 201-213.
- Taiwo, S. (2009). Teachers' perception of the role of media in classroom teaching secondary schools. *The Turkish Online Journal of Educational Technology*, 8(1), 75-83.
- Teo, T. (2009). Modelling Technology Acceptance in Education: A study of Pre-service Teachers. *Computers & Education*, 52(2), 302-312.
- Underwood, H., Garg, S., Tseng, C., Findlater, L., Anderson, R., & Pal, J. (2010, February). *Exploring collaborative learning methods for multiplayer educational games in low resource environments*. Poster presented at the ACM Conference on Computer Supported Cooperative Work, Savannah, Georgia, USA.
- United States Department of Education, National Center for Education Statistics. (2000). Teachers' tools for the 21st century. A report on teachers' use of technology. Washington, DC: Author. Retrieved January 10, 2014, from <http://nces.ed.gov/spider/web spider/2000102.shtml>.
- Venkatesh, V., Morris, M. G., Davis, G. B., & d Davis, F. D. 2003. User acceptance of Information Technology: Toward a unified view. *MIS Quarterly*, 27(3), 425-478.

- Whitworth, S., & Berson M. J. (2003). Computer technology in the social studies: An examination of the effectiveness literature (1996-2001). *Contemporary Issues of Technology and Teacher Education*, 2(4), 472–509.
- Windschitl, M., & Sahl, K. (2002). Tracing teachers' use of technology in a laptop computer school: The interplay of teacher beliefs, social dynamics, and institutional culture. *American Educational Research Journal*, 39(1), 165–205.
- Wozney, L., Venkatesh, V., & Abrami, P. C. (2006). Implementing computer technologies: perceptions and practices. *Journal of Technology and Teacher Education*, 14, 173–207.
- Wright, V. & Wilson, E. (Winter 2005-2006). From preservice to inservice teaching: A study of technology integration. *Journal of Computing in Teacher Education*, 22(2), 49-55.
- Yeung, A.S., Lim, K.M., Tay, E.G., Lam-Chiang, A.C., & Hui, C. (2012). Relating use of digital technology by pre-service teachers to confidence: A Singapore survey. *Australasian Journal of Educational Technology*, 28(8), 1317-1332.
- Yukselturk, E., & Bulut, S. (2009). Gender differences in self-regulated online learning environment. *Educational Technology & Society*, 12(3), 12–22.
- Zhao, Y. (2007). Social studies teachers' perspectives of technology integration. *Journal of Technology and Teacher Education* 15(3), 311-333.