

References consulted for the 2017 ESERA presentation

- Black, L. J., Wygonik, M. L., & Frey, B. A. (2011). Faculty-preferred strategies to promote a positive classroom environment. *Journal on Excellence in College Teaching*, 22 (2).
Accessed at <http://celt.miamioh.edu/ject/issue.php?v=22&n=2>.
- Bloom M, Fischer J, Orme JG. *Evaluating Practice: Guidelines for the Accountable Professional*. 6th Edition ed. Boston: Allyn and Bacon; 2009.
- Boone, W. J., Townsend, J. S., & Staver, J. (2011). Using Rasch theory to guide the practice of survey development and survey data analysis in science education and to inform science reform efforts: An exemplar utilizing STEBI self-efficacy data. *Science Education*, 95(2), 258-280.
- Boyd, D., Grossman, P., Lankford, H., Loeb, S., & Wyckoff, J. (2006). How changes in entry requirements alter the teacher workforce and affect student achievement. *Education Finance and Policy* 1 (2), 176-216.
- Campbell, I. (2007). Chi-squared and Fisher–Irwin tests of two-by-two tables with small sample recommendations. *Statistics in medicine*, 26(19), 3661-3675.
- Cavanagh, S. (2007). Doubts cast on math, science teaching lures. *Education Week*, 26(43), 1.
- Cochran-Smith, M., & Villegas, A.M. (2015). Framing teacher preparation research: An overview of the field, part 1. *Journal of Teacher Education*, 66 (1), 7-20.
- Cobern, W.W., Schuster, D.G., Adams, B, Skjold, B.Z., Muğaloğlu, E.Z., Bentz, A. & Sparks, K. (2014). Pedagogy of science teaching tests: Formative assessments of science teaching orientations. *International Journal of Science Education*, 36(13), 2265-2288.

- Committee on Science, Engineering, and Public Policy. (2007). *Rising above the gathering storm: Energizing and empowering America for brighter economic future*. Washington, DC: The National Academies Press.
- Corbin, J. & Strauss, A. (2015). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (4th ed.). Thousand Oaks, CA: Sage.
- Darling-Hammond, L. (1990). Teaching and knowledge: Policy issues posed by alternate certification for teachers. *Peabody Journal of Education*, 67 (3), 123-154.
- Darling-Hammond, L. (1996). What matters most: A competent teacher for every child. *Phi Delta Kappan*, 78, 193-200.
- Darling-Hammond, L. (2000). How teacher education matters. *Journal of Teacher Education*, 51, 166-173.
- Darling-Hammond, L., & Hudson, L. (1990). Chapter 4: Precollege Science and Mathematics Teachers: Supply, Demand, and Quality. *Review of research in education*, 16(1), 223-264.
- Demir, A., Sutton-Brown, C., & Czerniak, C. M. (2012). Constraints to changing pedagogical practices in higher education: An example from Japanese Lesson Study. *International Journal of Science Education*, 34, 1709-1739. doi: 10.1080/09500693.2011.645514.
- Dove, M. K. (2004). Teacher Attrition: A Critical American and International Education Issue. *Delta Kappa Gamma Bulletin*, 71(1), 8-30.
- Evans, R., Luft, J., & Czerniak, C. M., Pea, C. (2014). *The role of science teachers' beliefs in international classrooms: From teacher actions to student learning*. Rotterdam, The Netherlands: Sense Publishing. Eds.

- Freeman, Brigid, Marginson, Simon, and Tytler, Russell, eds. (2015). *The Age of STEM: Educational Policy and Practice across the World in Science, Technology, Engineering and Mathematics*. New York: Routledge.
- Gado, I. (2005). Determinants of K-2 school teachers' orientation towards inquiry-based science activities: A mixed method study. *International Journal of Science and Mathematics Education*, 3, 511-539. (STIPS)
- Haberman, M. (2008). *The Haberman star teacher pre-screener*. Houston: The Haberman Educational Foundation. (Haberman STAR Teacher Pre Screener. Accessed at <http://www.habermanfoundation.org/StarTeacherPreScreener.aspx>)
- Ingersoll, R. M. (1999). The problem of underqualified teachers in American secondary schools. *Educational researcher*, 28(2), 26-37.
- Ingersoll, R. M. (2002). The teacher shortage: A case of wrong diagnosis and wrong prescription. *NASSP bulletin*, 86(631), 16-31.
- Ingersoll, R. M., & Merrill, L. (2012). *Seven trends: The transformation of the teaching force*. The Consortium for Policy Research in Education.
- Henson, R. K. (2001). Teacher self-efficacy: Substantive implications and measurement dilemmas. (ED 452 208).
- Jones, D.R. & Harty, H. (1978). Instructional and classroom management preferences of secondary school science teachers. *Science Education*, 62, 1-9. (STIPS)
- Kraft, M. A., Marinell, W. H., & Shen-Wei Yee, D. (2016). School organizational contexts, teacher turnover, and student achievement: Evidence from panel data. *American Educational Research Journal*, 53(5), 1411-1449.

- Kraft, M.A., Papay, J.P, Charner-Laird, M., Johnson, S.M., Ng, M., & Reinhorn, S.K. (2015). Education amidst uncertainty: The organizational supports that teachers need to serve students in high poverty urban schools. *Educational Administration Quarterly*, 51 (5), 753-790.
- Lederman, N. G., Lederman, J. S., & Abd-El-Khalick, F. (2006). Alternative certification: Aspirations and realities. *Teaching science in the 21st century, (Part IV)*, 257-274.
- Ludlow, C. (2011). Alternative certification pathways: Filling a gap? *Education and Urban Society*, 45 (4), 440-458.
- Luft, J. A., & Roehrig, G. H. (2007). Capturing science teachers' epistemological beliefs: The development of the teacher beliefs interview. *Electronic Journal of Science Education*, 11(2).
- Lynch, S., Kuipers, J., Pyke, C., & Szesze, M. (2005). Examining the effects of a highly rated science curriculum unit on diverse students: Results from a planning grant. *Journal of Research in Science Teaching*, 42(8), 912-946.
- Macdonald, D. (1999). Teacher attrition: A review of literature. *Teaching and teacher education*, 15 (8), 835-848.
- McConney, A., Woods-McConney, A., & Price, A. (2012). Fast track teacher education: A review of the research literature on Teach For All schemes. Perth: Murdoch University, Centre for Learning, Change and Development. Accessed online at: <http://researchrepository.murdoch.edu.au/id/eprint/10228/1/NZPPTA-TFA-LitReview-final2012a.pdf>.
- Marginson, S., Tytler, R., Freeman, B., & Roberts, K. (2013). STEM: country comparisons: international comparisons of science, technology, engineering and mathematics (STEM) education. Final report.

- Mentzer, G.A., Czerniak, C.M., and Brooks, L. (2016). An examination of teacher understanding of project based science as a result of participating in an extended professional development program: Implications for implementation. *School Science and Mathematics*, 117 (1-2), 76-86.
- Milner, A.R., Sondergeld, T., Demir, K., Johnson, C., & Czerniak, C. (2012). Elementary teachers' beliefs and needs about teaching science: Examining the impact of pre/post NCLB testing in science. *Journal of Elementary Science Education*, 23(2), 111-132.
- Nottis, K., Feuerstein, A., Murray, J., & Adams, D. (2000). The teacher belief inventory: Measuring the theoretical and practical orientations of preservice teachers. *Education*, 121(1), 90.
- Patton, M. Q. (2015). *Qualitative research and evaluation methods* (4th ed.). Thousand Oaks, CA: Sage.
- Prosser, M., & Trigwell, K. (1999). *Understanding learning and teaching. The experience in higher education*. Buckingham: The Society for research into Higher Education & Open University Press.
- Riggs, I. M. & Enochs, L. G. (1990), Toward the development of an elementary teacher's science teaching efficacy belief instrument. *Science Education*, 74, 625–637..
- Ruhland, S. K., & Bremer, C. D. (2002). *Alternative teacher certification procedures and professional development opportunities for career and technical education teachers*. St. Paul, MN: National Research Center for Career and Technical Education.
- Schorling, R. (1947). The crisis in science and mathematics teaching. *School Science and Mathematics*, 47, 413-20.

- Seymour, E., & Hewitt, N. M. (1997). *Talking about leaving: Why undergraduates leave the sciences*. Boulder, CO: Westview Press.
- Simon, N. & Johnson, S.M. (2015). Teacher turnover in high poverty schools: What we know and can do. *Teachers College Record*, 117 (3), 1-36.
- Sunal, D. W., Hodges, J., Sunal, C. S., Whitaker, K. W., Freeman, L. M., & Edwards, L. (2001). Teaching science in higher education: Faculty professional development and barriers to change. *School Science and Mathematics*, 101, 246-257.
- Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing and elusive construct. *Teaching and Teacher Education*, 17, 783-805.
- U.S. Department of Education (2000). *Progress through the teacher pipeline: 1992-93 college graduates and elementary/secondary school teaching as of 1997*. NCES 2000-152. Washington DC: National Center for Education Statistics. Retrieved on May 7, 2007 from <http://nces.ed.gov/pubsearch/pubinfo.asp?public=2000152>.
- US Department of Education, Office of Innovation and Improvement (2004). *Alternative routes to teacher certification*. Accessed at <https://www2.ed.gov/admins/tchrqual/recruit/altroutes/report.pdf>.
- Wright, B. D. (1977). Solving measurement problems with the Rasch model. *Journal of Educational Measurement*, 14(2), 97-116.
- Zeichner, K. M., & Schulte, A. K. (2001). What we know and don't know from peer-reviewed research about alternative teacher certification programs. *Journal of Teacher Education*, 52(4), 266-282.