Annotated Bibliography

A selection of specific peer reviewed literature upon which the proposed South Dakota social studies standards are grounded

Agodini, R. & Harris, B. (2016). How teacher and classroom characteristics moderate the effects of four elementary math curricula. *The elementary school journal*, 117(2): 216-236.
An empirical study looking at varied types of math curricula in 'average' classrooms providing additional support for the importance of higher quality curriculum selections – including those which have an emphasis on knowledge-building (Saxon & Math Expressions)
Carpenter, S.K., Cepeda, N.J., Rohrer, D., Kang, S.H.K., & Pashler, H. (2012). Using spacing to enhance diverse forms of learning: Review of recent research and implications for instruction. *Educational psychology review*, 24: 369-378.
Reviews research examining the role of spacing practice over time and its relationship on learning that lasts – concludes with recommendations for classroom application
Chandler, P., & Sweller, J. (1991). Cognitive load theory and the format of instruction. *Cognition and Instruction*, 8: 293-332.
An empirical research report detailing experiments regarding varying circumstances for instructional format and consideration in light of cognitive load theory; includes suggestions for cognitively guided instructional packages
Chi, M.T.H., Feltovich, P., & Glaser, R. (1981). Categorization and representation of physics problems by experts and novices. *Cognitive science*, 5: 121-152.
One of the seminal studies of experts confirming the schema-based (knowledge-based) approach being successfully used to explain the differences between experts & novices
Dunlosky, J., Rawson, K.A., Marsh, E.J., Nathan, M.J., & Willingham, D.T. (2013). Improving students' learning with effective learning techniques: Promising directions from cognitive and educational psychology. *Psychological science in the public interest*, 14(1): 4-58.
Synthesizing research, 10 learning techniques are reviewed and discussed regarding their recommendations about the relative utility of each. Brief highlights: most worthwhile strategies include practice testing & distributed practice; moderately worthwhile strategies include interleaved practice, elaborative interrogation, & self-explanation
Elliot, A. M. (1992). *International mathematics and science assessment: What have we learned?* (Washington, DC: US Department of Education Office of Educational Research and Improvement NCES 92-011, 1992).
Includes this specific conclusion: "use of a differentiated curriculum based on tracking is negatively associated with student performance on the international assessments and also reduces opportunities for some students to be exposed to more advanced curriculum"
Guthrie, J.T. et al. (2004). Increasing reading comprehension and engagement through concept-oriented reading instruction [CORI]. *Journal of educational psychology*, 96(3): 403-423.
Empirical investigation that found students who were in CORI classrooms (content-emphasis) outperformed those in strategy-based instruction and those in traditional instruction settings
Karpicke, J.D., Blunt, J.R., Smith, M.A., & Karpicke, S.S. (2014). Retrieval-based learning: The need for guided retrieval in elementary children. *Journal of applied research in memory and cognition*, 3: 198-206.
Empirical investigation of 3 experiments finding that elementary students struggled with concept mapping and free recall activities but improved learning and retention with activities including more support suggesting that, especially for early learners, guided retrieval matters
Mayer, R.E. (2004). Should there be a three-strikes rules against pure discovery learning? The case for guided methods of instruction. *American Psychologist*, 59(1): 14-19.

Reviewing several decades of past empirical research paints a clear picture that guided methods of instruction far outpace discovery learning approaches in terms of student learning
Mueller, P.A., & Oppenheimer, D.M. (2014). The pen is mightier than the keyboard: Advantages of longhand over laptop note taking. *Psychological science*, 25: 1159-1168.
Research reviews and adds empirical data supporting the notion that student learning and retention is more shallow when using keyboards/electronic note-taking than doing so by hand
Pashler, H., McDaniel, M., Rohrer, D., & Bjork, R. (2009). Learning styles: Concepts and evidence. *Psychological science in the public interest*, 9(3): 105-119.
Reviewing the body of research, the authors point out that the concept of learning styles do not have any significant evidence to suggest that using them for instruction will enhance learning. They classify the widespread popularity of learning styles as disturbing in light of the complete lack of evidential support for their use in instruction
Rohrer, D. (2012). Interleaving helps students distinguish among similar concepts. *Educational psychology review*, 24: 355-367.
Reviewing the empirical research on interleaving presents support for use of this practice to enhance student learning, considerations are identified for further review but a firm evidence-base exists to support use of interleaved practice
Stockard, J., Wood, T.W., Coughlin, C., & Rasplica-Khoury, C. (2018). The effectiveness of direct instruction curricula: A meta-analysis of a half century of research. *Review of educational research*, 88(4): 479-507.
A meta-analysis reviewing empirical studies on direct instruction over the past half century providing continued support for the benefits of direct instruction, particularly for less advantaged students
Tricot, A. & Sweller, J. (2014). Domain-specific knowledge and why teaching generic skills does not work. *Educational psychology review*, 26: 265-283.
Explains why transferrable skills are not taught by teaching the skills themselves but rather through the building of knowledge in the domain in which the skills are to be utilized.
Willingham, D.T. (2017). A mental model of the learner: Teaching the basic science of educational psychology to future teachers. *Mind, brain, and education*, 11(6): 166-175.
Presents an alternative model for teacher education to integrate the learning sciences into their training considering practicality of application to be derived from empirical evidence
Chenowith, K. (2009). Piece by piece, how schools solved the achievement puzzle and soared. *American educator*, Fall: 15-23.
Articulates important steps school systems have taken to close achievement gaps and improve learning overall – includes a specific emphasis on including a content-rich curriculum as an essential piece of that puzzle
Clark, R.C, & Mayer, R.E. (2008). Learning by viewing versus learning by doing: Evidence-based guidelines for principled learning environments. *Performance Improvement*, 47(9): 5-13.
A short article that lays out evidence-based suggestions for when learning by viewing is better than learning by doing while also challenging some common misconceptions
Gosse, C. & Hansel, L. (2014). Taken for granted: Why curriculum is like oxygen. *American educator*, Summer: 19-27, 42-43.
A focused exploration of Hirsh's Core Knowledge Sequence (a content-rich curriculum) and its empirical and practical benefits for schools adopting it. Includes a short insert from Ruth Wattenberg that reviews the woefully thin content typically found in elementary curricula
Hirsch, E.D. & Hansel, L. (2013). Why content is king. *Educational leadership* 71(3): 28-33.
Provides a strong explanation for the importance of content knowledge as the focal point for developing coherent curricula that provide learners with a foundation for later learning.

Krahenbuhl, K.S. (2019). The problem with the expanding horizons model for history curricula. *Phi Delta Kappan*, 100(6): 20-26.
Articulates a critique of the intellectual weakness of the majority of elementary curricula currently in use that follow the EH model, reflecting on empirical evidence from cognitive science as well as presenting suggestions for how we can improve elementary curricula
Oates, T. (2016, April 18). Why ditching textbooks would be to the detriment of learning. *Times Educational Supplement*. Retrieved July 3, 2019, from https://www.tes.com/news/why-ditching-textbooks-would-be-detriment-learning
Brief summary of research that favors print copies of textbooks over electronic textbooks
Rosenshine, B. (2012). Principles of instruction: Research-based strategies that all teachers should know. *American Educator, Spring:* 12-19, 39.
Presents an overview of 10 principles teachers can apply in any context to improve the effectiveness of their instructional delivery for student learning
Senechal, D. (2010). The spark of specifics: How a strong curriculum enlivens classroom and school culture. *American Educator*, Winter: 24-29, 54.
Reflects on the crucial nature of specific content in a curriculum to ensure that all learners are given a fair opportunity to learn, allowing for creative extension, and how its specificity in terms of content to be learned brings clarity to what must be achieved reaping great benefits

Relevant Books

- ***Why Don't Student's Like School? (2nd Edition)***
  - Daniel Willingham
- **The Reading Mind**
  - Daniel Willingham
- ***Why Knowledge Matters***
  - E. D. Hirsch
- ***How to Educate a Citizen***
  - E.D. Hirsch
- ***Make it Stick!***
  - Peter Brown, Henry Roediger, & Mark McDaniel
- ***Peak: Secrets from the New Science of Expertise***
  - K. Anders Ericsson & Robert Pool
- ***Creating the Schools we Need***
  - Dylan Wiliam
- **The Knowledge Gap**
  - Natalie Wexler