



College of Education and Psychology
School of Education
Ed.D. in School Improvement

EDSI 6312 – The Study and Application of Improvement Science

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Term: Spring 2023 (Online includes occasional scheduled Synchronous sessions TBD)

Course Description

This course employs an interdisciplinary approach to examine Improvement Science and how leaders, teachers, and researchers collaborate to solve educational problems of practice.

Program Goals

- a. Produce the next generation of educational leaders who understand the philosophical and historical perspectives of school reform, diversity, learning opportunities for all, and can address educational issues using a variety of strategies.
- b. Develop critical reasoning and a deep understanding of change theory to address challenges in school improvement contexts. This will include the skills to provide transformative leadership to schools that are failing to meet academic, social, and emotional standards.
- c. Provide opportunities to develop doctoral students' ability to approach challenges in innovative data-driven ways, including the use of interdisciplinary teams, as well as expand their problem solving, creative design, communication, and collaboration skills.
- d. Challenge the norms within educational systems using data and the engagement of other educators and stakeholders in professional learning to lead disruptive change through interdisciplinary work with experts in other educational fields.
- e. Conduct research of practice and responsiveness to improve teaching and learning experiences, counseling and support services, school leadership, educational organizations and structures, and all other educational disciplines.
- f. Prepare the next generation of educators with the knowledge, skills and tools to utilize data to guide school improvement and policy and to improve learning outcomes leading to college and career readiness.
- g. Prepare educators with a deep understanding of assessment and accountability systems.
- h. Produce scholar practitioners that have a P-20 perspective of the education system to address school improvement in the broader perspective including educator preparation, teaching and learning.

Student Learning Outcomes

The student will...

- Understand the improvement science and its applications in the education setting.
- Investigate historical and current literature describing examples of improvement science in educational settings. .
- Become familiar and proficient in the use of Improvement Science tools.
- Develop a 90 Day Cycle Plan for their problem of practice research.
- Engage in group activities and discussions to explore multiple approaches to investigate the chosen phenomenon.
- Offer constructive feedback on colleagues' work and incorporate feedback into one's own work.

Required Textbooks

Bryk, A.S. (2020), *Improvement in Action: Advancing Quality in America's Schools*. Cambridge, MA: Harvard Education Press. ISBN-978-1-68253-499-1.

Hinnant-Crawford, B. N. (2020), *Improvement Science in Education: A Primer*. Gorham, ME: Myers Education Press. ISBN-978-1-9755-0355-0;.

Other Required Readings (to be distributed by instructor in Canvas)

Course Content

- Introduction to Improvement Science in Education
- Problem Identification
- Improvement Science Tools
- Interventions that Lead to Improvement
- Improvement Networks

Improvement Science Case Studies

- In-depth examples from schools and districts

Project Planning

- 90 Day Project Planning Approach

Course Evaluation

Assignment	% of grade	Description
Class Disussions	25%	Active participation includes posting responses on-time and attending scheduled synchronous sessions. Class and Small Group Discussions are only effective if everyone participates. I expect everyone to post multiple times during the week for discussions.
Case Studies	25%	Case Studies Reviews and Reflections
Improvement Science Tools	10%	Group Activities and PPT
90 Day Plan	40%	Students will submit a detailed 90 Day Plan based on the Carnegie Foundation Handbook
TOTAL	100%	

Grading Criteria

Performance standards			
Points	Percent	Grade	Standard
90-100	90	A	Superior
80-89	80	B	Meets Standard
70-79	70	C	Below Average
60-69	66	D	Unacceptable
00-59	60 or below	F	Unacceptable

Bibliography:

Allensworth, E.M., Farrington, C.A., Gordon, M.F., Johnson, D.W., Klein, K., McDaniel, B., & Nagaoka, J. (2018). Supporting social, emotional, & academic development: Research implications for educators. Chicago, IL: University of Chicago Consortium on School Research.

Albright, M. I., Weissberg, R. P., & Dusenbury, L. A. (2011). School-family partnership strategies to enhance children's social, emotional, and academic growth. Newton, MA: National Center for Mental Health Promotion and Youth Violence Prevention, Education Development Center, Inc.

American Institutes for Research (2015). Linking schools and afterschool through social

Barnard, W. M. (2004). Parent involvement in elementary school and educational attainment. *Children and Youth Services Review*, 26(1), 39-62. doi: 10.1016/j.childyouth.2003.11.002

Bear, G.G., Whitcomb, S.A., Elias, M.J., & Blank, J.C. (2015). SEL and schoolwide positive behavioral interventions and supports. In J. A. Durlak, C. E. Domitrovich, R. P. Weissberg, & T. P. Gullotta (Eds.), *Handbook of social and emotional learning: Research and practice*.

Berends, M., Bodilly, S., & Kirby, S. N. (2002). Looking back over a decade of whole-school reform: The experience of new American schools. *Phi Delta Kappan*, 84(2), 168-75.

Berger, R., & Rugen, L. (2014). *Leaders of their own learning: Transforming schools through student-engaged assessment*. Hoboken: Wiley.

Bryk, A. S., Gomez, L. M., Grunow, A., & LeMahieu, P. G. (2015). *Learning to improve: How America's schools can get better at getting better*. Harvard Education Press. Cambridge, MA: Harvard Education Press.

Bryk, A. S., & Schneider, B. (2002). *Trust in schools: A core resource for improvement*. New York: Russell Sage Foundation.

Caine, G., & Caine, R. N. (2010). *Strengthening and enriching your professional learning community: The art of learning together*. Alexandria, VA: ASCD.

Collie, R. J., Shapka, J. D., & Perry, N. E. (2011). Predicting teacher commitment: The impact of school climate and social-emotional learning. *Psychology in the Schools*, 48(10), 1034-1048.

Costello, B., Wachtel, J., & Wachtel, T. (2010). *Restorative circles in schools: Building community and enhancing learning*. Bethlehem, PA: International Institute for Restorative Practices.

Darling-Hammond, L., Cook-Harvey, C., Flook, L., Brigid B. & Osher, D. (2017). *Science of learning and development: Implications for educational practice*. Washington, DC: Science of Learning and Development Project, Aspen Institute.

Deci, E.L., & Ryan, R.M. (2000) Self-determination theory and the facilitation of intrinsic motivation, Social Development, and Well-Being. *American Psychologist*. 55(1), 68-78.

DuFour, R., & Eaker, R. (1998). *Professional learning communities at work: Best practices for enhancing student achievement*. Bloomington, IN: National Educational Service and Alexandria, VA: Association of Supervision and Curriculum Development.

DuFour, R., Eaker, R., & DuFour, R. (2005). *On common ground: The power of professional learning communities*. Bloomington, IN: National Educational Service.

Dupper, D.R., M.T. Theriot, & S.W. Craun (2009). Reducing out-of-school suspensions: Practice guidelines for school social workers. *Children & Schools*, 31, 6-16.

Durlak, J.A., & DuPre, E.P. (2008). Implementation matters: A review of research on the influence of implementation on program outcomes and the factors affecting implementation. *American Journal of Community Psychology*, 41(3-4), 327-350. doi: 10.1007/s10464-008-9165-0

Dweck, C.S., Walton, G. M., & Cohen, G. L. (2011). *Academic tenacity: Mindset and skills that promote long-term learning*. Seattle, WA: Bill & Melinda Gates Foundation.

Easton, L. B. (2008). *Powerful designs for professional learning*. Oxford, OH: National Staff Development Council.

Farrington, C.A., Roderick, M., Allensworth, E., Nagaoka, J., Keyes, T.S., Johnson, D.W., & Beechum, N.O. (2012). *Teaching adolescents to become learners. The role of noncognitive factors in shaping school performance: A critical literature review*. Chicago: University of Chicago Consortium on Chicago School Research.

Fullan, M. (2010). *All systems go: The change imperative for whole system reform*. Thousand Oaks, CA: Corwin.

Fullan, M. (2011). *Change leader: Learning to do what matters most*. New York, NY: Wiley.

Gartner, A. and Riessman, F. (1994). Tutoring helps those who give, those who receive. *Education Leadership*, 52(3) 58–60.

Gay, G. (2010). *Culturally responsive teaching: Theory, research, and practice*. New York: Teachers College Press, Columbia University.

Greenberg, M.T., Brown J.L., & Abenavoli, T.M. (2016). *Teacher stress and health effects on teachers, students, and schools*. University Park: PA: Edna Bennett Pierce Prevention Research Center, Pennsylvania State University. Retrieved from https://www.rwjf.org/content/dam/farm/reports/issue_briefs/2016/rwjf430428

Hall, G. E., & Hord, S. M. (2015). *Implementing change: Patterns, principles, and potholes* (4th edition). Boston, MA: Allyn and Bacon.

Hallinger, Philip, & Heck, Ronald H. (2010). Collaborative leadership and school improvement: Understanding the impact on school capacity and student learning. *School Leadership & Management: Formerly School Organization*, 30(2), 95-110.

Hammond, Z. (2014). *Culturally responsive teaching and the brain: Promoting authentic engagement and rigor among culturally and linguistically diverse students*. Thousand Oaks, CA: Corwin.

Harris, E., & Wilkes, S. (2013). *Partnerships for learning: Community support for youth success*. Retrieved from <http://www.hfrp.org/publications-resources/browse-our-publications/partnerships-for-learning-community-support-for-youth-success>

Hattie, J., & Gan, M. (2011). Instruction based on feedback. In R.E. Mayer & P.A. Alexander (Eds.) Handbook of research on learning and instruction (pp. 249-271). New York, NY: Routledge.

Heikkinen, H. L., Jokinen, H., & Tynjälä, P. (Eds.). (2012). Peer-group mentoring for teacher development. New York, NY: Routledge.

Henderson, A. T., & Mapp, K. L. (2002). A new wave of evidence: The impact of school, family, and community connections on student achievement. Austin, TX: Southwest Educational Development Laboratory.

Hollins, E.R. (1996). Culture in school learning. Mahwah, NJ: Lawrence Erlbaum.

Ingersoll, R. M., & Strong, M. (2011). The impact of induction and mentoring programs for beginning teachers: A critical review of the research. *Review of Educational Research*, 81(2), 201-233.

Jennings, P.A., & Greenberg M.T. (2009) The prosocial classroom: Teacher social and emotional competence in relation to student classroom outcomes. *Review of Educational Research*, 79(1), 491-525.

Jeynes, W. H. (2005). A meta-analysis of the relation of parental involvement to urban elementary school student academic achievement. *Urban Education*, 40(3), 237-269. doi: 10.1177/0042085905274540

Johnson, D. W., Johnson, R., & Holubec, E. (2008). *Cooperation in the classroom* (8th Ed.). Edina, MN: Interaction Book Company.

Kolb, A., & Kolb, D. (2009). On becoming a learner: The concept of learning Identity. In D. Bamford-Rees et. al. (Eds.), *Learning never ends: Essays on adult learning inspired by the life and work of David O. Justice*. Chicago, IL: CAEL Forum and News.

Lambert, L. (2003). *Leadership capacity for lasting school improvement*. Alexandria, VA: Association for Supervision and Curriculum Development.

Lewis, C. (2015). What Is Improvement Science? Do We Need It in Education? *Educational Researcher*, 44(1), 54–61. <https://doi.org/10.3102/0013189X15570388>

Louis, K. S., Leithwood, K., Wahlstrom, K. L., & Anderson, S. E. (2010). *Learning from leadership: Investigating the links to improved student learning*, Final Report to the Wallace Foundation. New York, NY: Wallace Foundation.

Marsh, J. A. (2012). Interventions promoting educators' use of data: Research insights and gaps. *Teachers College Record*, 114(11), 1–48.

Marzano, R. J., & Marzano, J. S., (2003). The key to classroom management. *Education Leadership*, 61(1), 6-13

Marzano, R.J., Pickering, D.J.,& Pollock, J.E. (2001) *Classroom instruction that works*. Alexandria, VA: ASCD.

Patti, J., & Tobin, J. (2003) *Smart school leaders: Leading with emotional intelligence*. Dubuque, IA: Kendall/Hunt.

Raffaele Mendez, L. M. (2003). Predictors of suspension and negative school outcomes: A longitudinal investigation. *New Directions for Youth Development*, 99, 17–33.

Reeves, D. B. (2006). *The learning leader: How to focus school improvement for better results*. Alexandria, VA: ASCD.

Reschly, A. L., & Christenson, S. L. (2012). Moving from “Context Matters” to engaged partnerships with families. *Journal of Educational & Psychological Consultation*, 22(1-2), 62-78.

Schaps, E., Battistich, V., & Solomon, D. (2003). Community in school as key to student growth: Findings from the Child Development Project. In J. Zins, R. Weissberg, M. Wang, & H. Walberg (Eds.), *Building academic success on social and emotional learning: What does the research say?* (pp. 189–205). New York: Teachers College Press, 2004.

Solomon, D., Battistich, V., Watson, M., Schaps, E., & Lewis, C. (2000). A six-district study of educational change: Direct and mediated effects of the Child Development Project. *Social Psychology of Education*, 4, 3–51.

Staats, C. (2015) *Understanding implicit bias: What educators should know*. *American Educator*.

Wayman, J. C., & Jimerson, J. B. (2014). Teacher needs for data-related professional learning. *Studies in Educational Evaluation*, 42(0), 25–34.

Wayman, J. C., & Stringfield, S. (2006). Technology-supported involvement of entire faculties in examination of student data for instructional improvement. *American Journal of Education*, 112(4), 549–571.



UNIVERSITY POLICIES

UT Tyler Honor Code

Every member of the UT Tyler community joins together to embrace: Honor and integrity that will not allow me to lie, cheat, or steal, nor to accept the actions of those who do.

For a full list of university policies including information related to the topics listed below, click [here](#).

- Students Rights and Responsibilities
- Campus Carry
- Tobacco-Free University
- Grade Replacement/Forgiveness and Census Date Policies
- State-Mandated Course Drop Policy
- Disability Services
- Student Absence due to Religious Observance
- Student Absence for University-Sponsored Events and Activities
- Social Security and FERPA Statement
- Emergency Exits and Evacuation
- Student Standards of Academic Conduct

UT Tyler Resources for Students:

- UT Tyler Writing Center (903.565.5995), writingcenter@uttyler.edu, <http://www.uttyler.edu/writingcenter/>
- UT Tyler Tutoring Center (903.565.5964), tutoring@uttyler.edu, <https://www.uttyler.edu/tutoring/>
- The Mathematics Learning Center, RBN 4021, This is the open access computer lab for math students, with tutors on duty to assist students who are enrolled in early-career courses.
- UT Tyler Counseling Center (903.566.7254) <https://www.uttyler.edu/counseling/>

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Vision: The College of Education and Psychology is nationally recognized and respected for its academic programs and opportunities. It is a center of academic excellence, scholarly inquiry, and public service. The College prepares leaders to meet the critical challenges of the 21st Century through productive contributions to local and global communities and toward individual and cultural equity.

Mission: The mission of the College of Education and Psychology is to provide a positive environment that fosters the acquisition of knowledge and skills. The mission is individually and collectively realized through a community of scholars that contributes to knowledge through scholarly inquiry; organizes knowledge for application, understanding and communication; and provides leadership and service. We affirm and promote global perspectives that value individual and cultural diversity to enhance learning, service, and scholarship.