SPC_ED 8336
APPLICATIONS OF SCIENCE OF READING FOR CHILDREN WITH DISABILITIES

INSTRUCTOR
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OFFICE HOURS
> By appointment

CLASS DAY/TIME/LOCATION
> Online

COURSE DESCRIPTION

The purpose of this course is to provide graduate students with advanced study in research and application of the science of reading. According to the International Literacy Association, the science of reading is "a corpus of objective investigation and accumulation of reliable evidence about how humans learn to read and how reading should be taught." The focus of the course will be on the corpus of evidence on how reading should be taught with students with disabilities.

At the conclusion of this course, students will be able to:
1. Critically consume research regarding literacy methods. (MTS 1)
2. Locate and consume an accumulation of reliable evidence on a variety of topics related to reading instruction. (MTS 1)
3. Examine research to identify evidence-based practices in literacy in order to implement them (MTS 1, 2, 3) and lead a professional development effort to help other implement them (MTS 9).
4. Assess the instructional level for reading and use it to design instruction and monitor student progress toward IEP or instructional goals (MTS 7).
5. Implement explicit instruction in phonological awareness, decoding, word recognition, vocabulary and writing skills for students who are at-risk for or have reading disabilities (MTS 1, 2, 3).
6. Modify instructional strategies for literacy to meet the needs of students for whom English is not their native language (MTS 1, 2, 3, 7).
7. Apply technology to the literacy instruction of students with disabilities or those who are at risk for developing disabilities.

REQUIRED TEXTS

Carnine, D. W., Silbert, J., Kame'enui, E. J., Slocum, T. A., & Travers, P. A. (2017). *Direct instruction reading* (6th edition). Pearson.

Coker, D. L., & Ritchey, K. D. (2015). *Teaching beginning writers.* Guilford.

Bogaerds-Hazenberg, S. T., Evers-Vermeul, J., & van den Bergh, H. (2021). A meta‑analysis on the effects of text structure instruction on reading comprehension in the upper elementary grades. *Reading Research Quarterly*, *56*(3), 435-462.

Burns, M. K., Duke, N., & Cartwright, K. (2021). Evaluating the Active View of Reading with intervention research: Implications for social justice. *School Psychology.*

Burns, M. K., Zaslofsky, A. F., Kanive, R., & Parker, D. C. (2012). Meta-analysis of incremental rehearsal using phi coefficients to compare single-case and group designs. *Journal of Behavioral Education, 21*(3), 185-202.

Filderman, M. J., Austin, C. R., Boucher, A. N., O'Donnell, K., & Swanson, E. A. (2021). A Meta-Analysis of the Effects of Reading Comprehension Interventions on the Reading Comprehension Outcomes of Struggling Readers in Third Through 12th Grades. *Exceptional Children*, 00144029211050860.

Galuschka, K., Görgen, R., Kalmar, J., Haberstroh, S., Schmalz, X., & Schulte-Körne, G. (2020). Effectiveness of spelling interventions for learners with dyslexia: A meta-analysis and systematic review. *Educational Psychologist*, *55*(1), 1-20.

Graham, S., McKeown, D., Kiuhara, S., & Harris, K. R. (2012). A meta-analysis of writing instruction for students in the elementary grades. *Journal of Educational Psychology*, *104*(4), 879.

Lee, J., & Yoon, S. Y. (2017). The effects of repeated reading on reading fluency for students with reading disabilities: A meta-analysis. *Journal of Learning Disabilities*, *50*(2), 213-224.

Suggate, S. P. (2016). A meta-analysis of the long-term effects of phonemic awareness, phonics, fluency, and reading comprehension interventions. *Journal of Learning Disabilities*, *49*(1), 77-96.

CLASS NOTES—AVAILABLE ON CANVAS

COURSE REQUIREMENTS

MODULE ACTIVITIES (150 PTS)
There will be brief activities for each module to demonstrate understanding of what was learned. Some of the activities will involve case studies, descriptions of practices, products from assessments, etc. Each of the activities is worth 10 points.

Post Comments About Meta-Analyses (80 pts)
There are eight assigned meta-analyses. Each student will post at least one comment about each of the eight articles (5 points each) and respond to one other comment made by a different student (5 points each).

CRITIQUE TWO SYNTHESES OF RESEARCH (META-ANALYSIS) (40 pts)
Each student will select two meta-analyses about reading instruction that address different topics. The meta-analyses must be published within the past 10 years from an approved journal (please see list at the of the syllabus). Write a brief critique of the research methods for each meta-analysis using the approach outlined in Module 2. Please be critical! It is better to take a chance and be not quite correct than to be overly positive– do not be afraid to take chances. The critique is due before each module is completed.

RESEARCH-BASED PROFESSIONAL DEVELOPMENT (50 points)
You will select a topic that aligns with the science of reading on which you could conduct a professional development for practicing teachers (e.g., phonics assessments, ways to infuse vocabulary into instruction, teaching phonics to older students, the link between fluency and comprehension), and prepare a 15-minute training with visual aids and at least 5 citations from research journals. Topics may also be taken from 8370. The topic and reference list must be approved by Dr. Burns beforehand.

You will then deliver the PD (can be to a group or individual if you would prefer that), and record it as an mp4 file, which will be turned in via Canvas and placed on Dr. Burns's YouTube channel.
The following criteria will be used to evaluate the project:
1. Citations describe original research from reputable journals (10 points).
2. The presentation is engaging and is between 10 and 15 minutes long (25 points).
3. Presents practical information that viewers can immediately use in their practice (5 points).
4. Adequately covers the research base (5 points).
5. The presentation is professional (5 points).

PEER REVIEW OF RESEARCH-BASED PROFESSIONAL DEVELOPMENT (10 points)
Each student will watch one video of another student's research-based PD and provide feedback. The feedback can address the evidence-base for the intervention, but will likely address the accuracy of the information presented, the quality of the presentation, and the extent to which the PD was engaging.

CONVERSION TO UNIVERSITY LETTER GRADES

Letter Grade	Percentage of Total Points
A	93% to 100%
A-	90% to 92%
B+	87% to 89%
B	83% to 86%
B-	80% to 82%
C+	77% to 79%
C	73% to 76%
C-	70% to 72%
F	69% or lower

Grades will be rounded up if the decimal is between .5 and .9 and rounded down if the decimal is between .1 and .4.

If you are taking this course as satisfactory/unsatisfactory, A+/-, B+/-, and C+/- grades are recorded on the transcript as an S. D+/- and F grades are recorded on the transcript as a U.

GENERAL REQUIREMENTS

1.   ALL WRITTEN ASSIGNMENTS must be prepared in a PROFESSIONAL manner including correct English spelling and grammar. *All assignments should be written in Times New Roman 12-point font with 1-inch margins.* *PLEASE put your first and last name on any assignment you submit.* Products which, in the judgment of the instructor, are unreadable or unprofessionally prepared will be returned ungraded or assigned a lower evaluation. All papers must be written in accordance with the American Psychological Association Publication Guidelines (7th edition).

2. **Email Expectations:** The best way to reach the instructor is through email (burnsmk@missouri.edu). Please allow at least 24 hours for a response to your email, with the possibility for longer delay on weekends, holidays, or other times identified by the instructor (e.g. work travel). To facilitate accurate and timely communication, please include each of these components in your email:
   a) a subject line that includes your full name and name of our course (SPC_ED 4020/7020).
   b) be very clear with your question/concern/topic. If your question involves the syllabus or instructions, please paste the relevant passage into your email message along with your question. If your question is grade-related, please explain your question and indicate if you believe this is an individual situation or should apply to the whole class.
   c) use professional language and tone.
   d) reread your email prior to sending.
   Feel free to text Dr. Burns at 651-592-3061, but please be sure to state who is texting.

3.   DO YOUR OWN WORK. To plagiarize is "to steal and pass off as one's own the ideas or words of another" (Webster, 1967, p. 646), or to not acknowledge the author of an idea. If plagiarism is evident, the student will receive a "0" on that activity AND may be given a "No Pass" grade for the course AND may be suspended or expelled from the university. **Professors are required to report any suspected cases of academic dishonesty to the Provost's office.**

4.   Academic honesty is fundamental to the activities and principles of any university. All members of the academic community must be confident that each person's work has been responsibly and honorably acquired, developed, and presented. Any effort to gain an advantage not given to all students is dishonest whether or not the effort is successful. The academic community regards academic dishonesty as an extremely serious matter, with serious consequences that range from probation to expulsion. When in doubt about plagiarism, paraphrasing, quoting, or collaboration, consult the course instructor.

5.   Students with Disabilities:
If you anticipate barriers related to the format or requirements of this course, if you have emergency medical information to share with me, or if you need to make arrangements in case the building must be evacuated, please let me know as soon as possible.
If disability related accommodations are necessary (for example, a note taker, extended time on exams, captioning), please register with the Office of Disability Services (http://disabilityservices.missouri.edu), S5 Memorial Union, 573- 882-4696, and then

notify me of your eligibility for reasonable accommodations. For other MU resources for students with disabilities, click on "Disability Resources" on the MU homepage.

TOPICAL OUTLINE AND WEEKLY ASSIGNMENTS

Module	Topic	Reading/Assignment Due
1	Structure of the course and introduction to course content, corpus of evidence, characteristics of effective interventions	Reading Chapter 1 Burns et al., 2021
2	Classwide interventions for reading	Reading Chapter 5 Suggate (2016)
3	Phonics analysis	Reading Chapter 13
4	Structural analysis	Reading Chapter 14 Bogaerds-Hazenberg et al. (2021)
5	Irregular words Incremental rehearsal	Reading Chapter 15 Burns et al. (2012) First Meta-Analysis Critique Due
6	Fluency and passage reading Instructional levels	Reading Chapter 16 Lee & Yoon (2017)
7	Vocabulary and secondary students	Reading Chapter 17
8	Reading comprehension interventions	Reading Part IV Overview
9	Comprehension skills	Reading Chapter 18 Filderman et al. (2021)
10	Narrative comprehension	Reading Chapter 19
11	Teaching handwriting	Writers Chapter 3
12	Teaching spelling	Writers Chapter 4 Galuschka et al. (2020) PD Project Due
13	Teaching sentence construction	Writers Chapter 5
14	Genre-specific writing	Writers Chapter 6 Graham et al. (2012) Peer Feedback on PD Due
15	Students with writing needs	Writers Chapter 10 Second Meta-Analysis Critique Due PD Project Due

Approved Journals	
AERA Open	JOURNAL OF EXPERIMENTAL EDUCATION
American Journal on Intellectual and Developmental Disabilities	JOURNAL OF FLUENCY DISORDERS
AMERICAN EDUCATIONAL RESEARCH JOURNAL	JOURNAL OF INTELLECTUAL & DEVELOPMENTAL DISABILITY
ANNALS OF DYSLEXIA	JOURNAL OF INTELLECTUAL DISABILITY RESEARCH
APPLIED MEASUREMENT IN EDUCATION	JOURNAL OF LEARNING DISABILITIES
BEHAVIORAL DISORDERS	JOURNAL OF LITERACY RESEARCH
Canadian Journal of School Psychology	JOURNAL OF POSITIVE BEHAVIOR INTERVENTIONS
CHILD DEVELOPMENT	JOURNAL OF PSYCHOEDUCATIONAL ASSESSMENT
COGNITION AND INSTRUCTION	JOURNAL OF RESEARCH IN READING
DYSLEXIA	Journal of Research on Educational Effectiveness
EARLY CHILDHOOD RESEARCH QUARTERLY	JOURNAL OF SCHOOL PSYCHOLOGY
Education and Training in Autism and Developmental Disabilities	JOURNAL OF SPECIAL EDUCATION
Education and Treatment of Children	JOURNAL OF THE LEARNING SCIENCES
Educational and Psychological Measurement	LEARNING AND INDIVIDUAL DIFFERENCES
EDUCATIONAL EVALUATION AND POLICY ANALYSIS	Learning Disability Quarterly
Educational Measurement-Issues and Practice	Learning Disabilities Research & Practice
Educational Psychology	LEARNING AND INSTRUCTION
EDUCATIONAL RESEARCH	PSYCHOLOGY IN THE SCHOOLS
Educational Researcher	Reading & Writing Quarterly
EXCEPTIONAL CHILDREN	READING AND WRITING
Focus on Autism and Other Developmental Disabilities	READING RESEARCH QUARTERLY
GIFTED CHILD QUARTERLY	REMEDIAL AND SPECIAL EDUCATION
INSTRUCTIONAL SCIENCE	Research in Autism Spectrum Disorders
Intellectual and Developmental Disabilities	RESEARCH IN DEVELOPMENTAL DISABILITIES
International Journal of Developmental Disabilities	RESEARCH IN THE TEACHING OF ENGLISH
International Journal of Disability Development and Education	School Mental Health
INTERVENTION IN SCHOOL AND CLINIC	SCHOOL PSYCHOLOGY INTERNATIONAL
JOURNAL OF ADOLESCENT & ADULT LITERACY	SCHOOL PSYCHOLOGY QUARTERLY
Journal of Applied Research in Intellectual Disabilities	SCHOOL PSYCHOLOGY REVIEW
Journal of Behavioral Education	SCIENTIFIC STUDIES OF READING
JOURNAL OF DEVELOPMENTAL AND PHYSICAL DISABILITIES	Teacher Education and Special Education
Journal of Early Childhood Literacy	TEACHING AND TEACHER EDUCATION
JOURNAL OF EARLY INTERVENTION	TESOL QUARTERLY
JOURNAL OF EDUCATIONAL AND PSYCHOLOGICAL CONSULTATION	
JOURNAL OF EDUCATIONAL MEASUREMENT	
JOURNAL OF EDUCATIONAL PSYCHOLOGY	
JOURNAL OF EDUCATIONAL RESEARCH	

Syllabus Statements from The Office of The Provost
Http://Provost.Missouri.Edu/Faculty/Syllabus.Html:

Information regarding Pronoun Choice, COVID-19, Mental Health, Academic Dishonesty, Title IX, ADA, Intellectual Pluralism, Executive Order #38, Academic Inquiry, Course Discussion and Privacy, Faculty allowing recording, Faculty not allowing recording, can be found on the Provost's website and they are linked in Canvas on the Support & Policies tab. Please refer there for further information.

Decreasing the Risk of COVID-19 in Classrooms and Labs
MU cares about the health and safety of its students, faculty, and staff. To provide safe, high-quality education amid COVID-19, we will follow several specific campus policies in accordance with the advice of the Center for Disease Control and Boone County health authorities. This statement will be updated as information changes.

Student Support Statement
Students can encounter challenges that may impact their performance in their academic programs. The College of Education & Human Development (CEHD) community is committed to supporting students who encounter these challenges. Any student who cannot afford groceries or access sufficient food to eat every day, or who lacks a safe and stable place to live is urged to contact the MU Care Team or Dr. Jennifer Fellabaum-Toston, Associate Dean for Student Success & Academic Affairs in the College (fellabaumje@missouri.edu). In addition, the MU Tiger Pantry is a resource with a food pantry and personal care items, located in the Hitt Street Parking Structure (enter off of Elm Street), Columbia, MO. The Exchange (201 Townsend) also has nonperishable food and personal care items. For students located outside of Columbia, MO, please do not hesitate to let me know if you need assistance in identifying similar resources near you.

References to Standards, Other Resources or Bibliography

Policies & Procedures - http://registrar.missouri.edu/policies/index.php

- Classroom Management
- Diversity
- Technology
- Communication

References to Show-Me Standards, Curriculum Frameworks, MAP in objectives, assignments, assessment and/or references
> Show-Me Standards
> http://dese.mo.gov/standards/
> GLEs
> http://www.dese.mo.gov/divimprove/curriculum/GLE/
> Curriculum Frameworks

http://www.dese.mo.gov/divimprove/curriculum/frameworks/supplement.htm
MAP http://www.dese.mo.gov/divimprove/assess/
MSIP
http://dese.mo.gov/divimprove/sia/msip/

Technology Integration
http://etatmo.missouri.edu/toolbox/index.php

Conceptual Framework
Effective, Responsive Professionals

SPED 4310/7310 is but one course among many designed to help you become an **"effective, responsive, professional"** (a key theme and conceptual framework for the program). Awareness of these concepts is an integral part of your development as a Special Education teacher.

An Effective Educator:

- Acquires new knowledge that is grounded in inquiry.

- Discovers and uses evidence-based research in practice.

- Is a resourceful and innovative user of technology.

- Demonstrates excellence through life-long learning and leadership.

A Responsive Educator:

- Continues to learn about the theories, concepts, and research-based evidence in his/her specialized field of practice.

- Appropriates and applies new technological tools to enhance effective practice.

- Stays informed about the changing social, economic, legal and political contexts of practice at the local, state, national, and international levels.

- Is attuned to the psychological, social, economic, and cultural diversity of students, families, and communities.

A hallmark of Special Education is individualization, which requires a high degree of understanding and responsiveness to the individual strengths and concerns of **all** of your students.

A Professional Educator:

- Facilitates positive social interactions, collaboration, and engagement.

- Communicates with multiple audiences using a variety of communication tools.

- Reflects on ethical consequences of decisions and actions.

- Engages in continuous self-assessment and development.

- Contributes to the formation of a creative, caring, and productive learning community.

You will become certified and compensated to be responsible for students' lives in a school or other settings. Professionalism means that you make informed decisions and take actions that have the best interest of students in mind. <u>Our standard is research-based practices.</u> It also means that you make an ethical commitment to serve all of the students and families in your school community.

Professional Standards

Skilled professionals must display knowledge, skills and decision-making competencies. Several competencies from the Missouri Teacher Standards (May 2013) as well as from the Council for Exceptional Children (CEC, 2012) are addressed by this course. Each section of the course addresses competencies thought to be important for all Special Education teachers and those specific to working with students with mild-moderate cross-categorical needs (CAT). Knowledge about these competencies will prepare you for the Missouri Content Assessment (MOCA) Exam.

The following documents, which are available on Canvas, provide a framework of expectations and guidance for safe and effective practice.

I. Missouri Teacher Standards (May, 2013)

Standard #1 Content knowledge aligned with appropriate instruction.
The teacher understands the central concepts, structures, and tools of inquiry of the discipline(s) and creates learning experiences that make these aspects of subject matter meaningful and engaging for all students.
SB 291 Section 160.045.2 (3) The teacher is prepared and knowledgeable of the content and effectively maintains students' on-task behavior.
Quality Indicator 1: Content knowledge and academic language
Quality Indicator 2: Student engagement in subject matter
Quality Indicator 3: Disciplinary research and inquiry methodologies
Quality Indicator 4: Interdisciplinary instruction
Quality Indicator 5: Diverse social and cultural perspectives

Standard #2 Student Learning, Growth and Development: The teacher understands how students learn, develop and differ in their approaches to learning. The teacher provides learning opportunities that are adapted to diverse learners and support the intellectual, social, and personal development of all students.[SB 291 Section 160.045.2 (1) Students actively participate and are successful in the learning process; (5) The teacher keeps current on instructional knowledge and seeks and explores changes in teaching behaviors that will improve student performance.]
Quality Indicator 1: Cognitive, social, emotional and physical development
Quality Indicator 2: Student goals
Quality Indicator 3: Theory of learning

Quality Indicator 4: Differentiated lesson design
Quality Indicator 5: Prior experiences, multiple intelligences, strengths and needs
Quality Indicator 6: Language, culture, family and knowledge of community values

Standard #3 Curriculum Implementation.
The teacher recognizes the importance of long-range planning and curriculum development. The teacher develops, implements, and evaluates curriculum based upon student, district and state standards data. SB 291 Section 160.045.2 (1) Students actively participate and are successful in the learning process; (2) Various forms of assessment are used to monitor and manage student learning; (3) The teacher is prepared and knowledgeable of the content and effectively maintains students' on-task behavior; (5) The teacher keeps current on instructional knowledge and seeks and explores teaching behaviors that will improve student performance.
Quality Indicator 1: Implementation of curriculum standards
Quality Indicator 2: Lessons for diverse learners
Quality Indicator 3: Instructional goals and differentiated instructional strategies

Standard #7 Student Assessment and Data Analysis: The teacher understands and uses formative and summative assessment strategies to assess the learner's progress and uses both classroom and standardized assessment data to plan ongoing instruction. The teacher monitors the performance of each student, and devises instruction to enable students to grow and develop, making adequate academic progress.[SB 291 Section 160.045.2 (2) Various forms of assessment are used to monitor and manage student learning; (5) The teacher keeps current on instructional knowledge and seeks and explores changes in teaching behaviors that will improve student performance.
Quality Indicator 1: Effective use of assessments
Quality Indicator 2: Assessment data to improve learning
Quality Indicator 3: Student-led assessment strategies
Quality Indicator 4: Effect of instruction on individual/class learning
Quality Indicator 5: Communication of student progress and maintaining records
Quality Indicator 6: Collaborative data analysis

II. CEC Special Education Professional Ethical Principles (January, 2010)

1. Maintaining challenging expectations for individuals with exceptionalities to develop the highest possible learning outcomes and quality of life potential in ways that respect their dignity, culture, language, and background.

2. Maintaining a high level of professional competence and integrity and exercising professional judgment to benefit individuals with exceptionalities and their families.

3. Promoting meaningful and inclusive participation of individuals with exceptionalities in their schools and communities.

4. Practicing collegially with others who are providing services to individuals with exceptionalities.

5. Developing relationships with families based on mutual respect and actively involving families and individuals with exceptionalities in educational decision making.

6. Using evidence, instructional data, research, and professional knowledge to inform practice.

7. Protecting and supporting the physical and psychological safety of individuals with exceptionalities.

8. Neither engaging in nor tolerating any practice that harms individuals with exceptionalities.

9. Practicing within the professional ethics, standards, and policies of CEC; upholding laws, regulations, and policies that influence professional practice; and advocating improvements in the laws, regulations, and policies.

10. Advocating for professional conditions and resources that will improve learning outcomes of individuals with exceptionalities.

11. Engaging in the improvement of the profession through active participation in professional organizations.

12. Participating in the growth and dissemination of professional knowledge and skills.

III. CEC Initial Level Special Educator Preparation Standards (December, 2012)

Standard 1: Learner Development and Individual Learning Differences
Beginning special education professionals understand how exceptionalities may interact with development and learning and use this knowledge to provide meaningful and challenging learning experiences for individuals with exceptionalities.

Standard 2: Learning Environments
Beginning special education professionals create safe, inclusive, culturally responsive learning environments so that individuals with exceptionalities become active and effective learners and develop emotional well-being, positive social interactions, and self-determination.

Standard 3: Curricular Content Knowledge
Beginning special education professionals use knowledge of general and specialized curricula to individualize learning for individuals with exceptionalities.

Standard 4: Assessment
Beginning special education professionals use multiple methods of assessment and data-sources in making educational decisions.

Standard 5: Instructional Planning and Strategies
Beginning special education professionals select, adapt, and use a repertoire of evidence-based instructional strategies to advance learning of individuals with exceptionalities.

Standard 6: Professional Learning and Ethical Practice
Beginning special education professionals use foundational knowledge of the field and the their professional Ethical Principles and Practice Standards to inform special education practice, to engage in lifelong learning, and to advance the profession.

Standard 7: Collaboration
Beginning special education professionals collaborate with families, other educators, related service providers, individuals with exceptionalities, and personnel from community agencies in culturally responsive ways to address the needs of individuals with exceptionalities across a range of learning experiences.