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Montana Effective Practices Alignment Matrix

Introduction

Since its inception, the Montana Collaboration for Effective Educator Development, Accountability and Reform (CEEDAR) – a partnership of the Office of Public Instruction, University of Montana, University of Montana Western, Montana State University, Montana State University Billings, and University of Providence – has been focusing on its mission to increase the commitment and capacity of all Montana educators to maximize the learning outcomes of every student. Central to this work has been an emphasis on ensuring that all future and novice educators acquire a core set of highly effective instructional practices through the various educator preparation programs (EPPs) available throughout the state. More recently, the MT CEEDAR team along with other MT EPP professional colleagues has undertaken the alignment of three major national and statewide professional development initiatives: the Danielson Framework, Teaching Works High-leverage Practices (HLPs), and the Council for Exceptional Children HLPs – using the effective practices ratings system developed by John C. Hattie.

The Role of High Leverage Practices in Preparing Novice Teachers

In recent years, teacher and leader educators have identified a critical set of essential practices that can be used in any content area with research showing these essential practices improve student learning and behavior (citation). These practices can be learned by candidates through coursework and reinforced through clinical field experiences. These critical practices, known as High Leverage Practices (HLPs), represent a "common core of professional knowledge and skill that can be taught to aspiring teachers across all types of programs and pathways" (Ball & Forzani, 2011, p. 19). More information on HLPs is available at: http://ceedar.education.ufl.edu/wp-content/uploads/2017/12/HLPs-and-EBPs-A-Promising-Pair.pdf.

How to Understand the Matrix

This Effective Practices Alignment Matrix is designed to show the alignment between highly-used instructional frameworks and practices across Montana schools and create coherence across practices and instructional frameworks. It is organized using four essential resources: The *Danielson Framework*, a widely used observation tool designed to evaluate general education teacher instruction that represents core domains, components, and elements of effective general education instruction; *Teaching Works High Leverage Practices*, which embodies 19 essential practices general education research has found to be effective across students and content areas; *Council for Exceptional Children (CEC) and CEEDAR HLPs*, which are practices that special education researchers and experts have identified as critical for general success of students with disabilities or students receiving specialized instructional intervention support; *and, John* C. *Hattie Influencers*, a list which contains 250+ factors that impact student learning, along with how much impact each factor has.

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A Note about Effect Sizes

Effect size depicts the difference in performance between two groups--usually control and treatment—irrespective of sample size. To calculate this metric, Hattie uses the statsitcal method of *Cohen's d*, which classifies effect sizes as "small," "medium," or "large" based on the following range: small effects = 0.20, medium effects =0.50, large effects = 0.80. Educational and behavioral science research generally sees smaller effects compared to other sciences because much of the research is working with latent variables in quasi designs. Also, the more distal assessments are to the treatments, the more diminished the effect size will likely be (e.g., standardized tests versus curriculum aligned assessments). According to Hattie (2009,) an effect size of .4 is the average for educational research, .5 is equal to one years' worth of growth, and 1.0 is equal to two years' worth of teaching. Therefore, an effect size greater than or equal to .4 is a zone of desired effects in terms of instructional practice. As the purpose of this document is to align different frameworks, it does not provide information about the effect sizes of the recommended practices (column 4). However, these practices have either shown an effect size of .4 or greater, and/or are researched, evidence-based practices.

How to Use Matrix

1. The matrix is organized around the principle domains of the Danielson Framework which are: Planning & Preparation, Classroom Environment, Instruction, and Professional Responsibilities. The core components and elements of each Danielson domain are listed in the first column. Listed in the following two columns are corresponding general (TeachingWorks) and special education (CEC/CEEDAR) HLPs. The final column lists the matching researched influencers by Hattie on student achievement, as well as other recommended, evidence-based teaching practices. Many of the recommended practices contain links to resources, which provide more in-depth descriptions of the practices and how to use them.

2. Instructors in educator preparation programs (EPPs) can use this matrix to help develop course syllabi. For example, if an instructor wants to ensure they are providing their pre-service teachers with the most relevant and up to date evidence-based information on the Danielson Domain of Demonstrating Knowledge of Content and Pedagogy, they can see that the general education HLP aligned with this is diagnosing common patterns of student thinking. Therefore, the instructor may want to teach their pre-service teachers how to assess for prior student knowledge. To ensure their pre-service teachers are prepared to teach students with disabilities, the instructor can look across and see that a HLP associated with the Danielson domain of Demonstrating Knowledge of Content is scaffolded instruction, which also has a significant effect size. Therefore, an instructor in an EPP may want to ensure they include ways in which to teach their pre-services teachers to scaffold instruction.

3. EPPs can also use this matrix through practicum experiences. For example, while observing a pre-service teacher for specific examples of the Danielson Domain of Managing Student Behavior and the general education HLP of specifying and reinforcing productive student behavior, a practicum supervisor may at the same time use the opportunity for teaching explicit social behaviors (a CEC HLP) using behavioral organizers (recommended by Hattie due to a desired effect size).

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Bibliography References and Resources

Helpful Resources:

Videos: High-Leverage Practices in Special Education

https://highleveragepractices.org/videos/

The HLP Video Series provides examples of CEEDAR/CEC HLPs in action in real classrooms. They show teachers explicity using HLPs and EBPs to meet the specific needs of individuals in their classes.

High-Leverage Practices and Evidence-Based Practices: A Promising Pair

http://ceedar.education.ufl.edu/wp-content/uploads/2017/12/HLPs-and-EBPs-A-Promising-Pair.pdf

This brief describes how educator preparation programs can integrate HLPs and EBPs in their candidates' learning opportunities, as well as how these practices can be seamlessly integrated into instruction provided as part of multi-tiered systems of support (MTSS).

Hattie's 2017 List of Factors Influencing Student Achievement

http://www.evidencebasedteaching.org.au/hatties-2017-updated-list/

This list contains 250+ factors that impact student learning, along with how much impact each factor has.

Document References:

Ball, D., Teaching Works (2016). High Leverage Practices. Retrieved from http://www.teachingworks.org/work-of-teaching/high-leverage-practices

Council for Exceptional Children. (2016). High Leverage Practices in Special Education. Retrieved https://highleveragepractices.org

The Danielson Group (2013) . The Framework. Retrieved from https://www.danielsongroup.org/framework/

Hattie, J. (2015) . The applicability of Visible Learning to higher education. Scholarship of Teaching and Learning in Psychology, 1(1), 79-91.

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Effective Practices Alignment Matrix

Danielson Framework (Domains, Components, Elements)	TeachingWorks High-Leverage Practices	CEC High-Leverage Practices	Recommended Evidence-Based Practices
GenED	***GenED***	***SPED***	***ALL***
1: Planning & Preparation			
1a. Demonstrating Knowledge of Content & Pedagogy ▪ Content and the structure of the discipline ▪ Prerequisite relationships ▪ Content-related pedagogy	▪ Diagnosing particular common patterns of student thinking and development in a subject-matter domain (practice #4)	▪ Scaffold instruction (practice #15) ▪ Provide intensive instruction (21)	▪ Conceptual change programs ▪ Concept mapping ▪ Visual scaffolds ▪ Integrated curricula programs ▪ Gradual release ▪ Modeling Worked examples: ▪ CEEDAR Center IC on Literacy Instruction for Students with Multiple & Sever Disabilities ▪ CEEDAR Center IC – Supporting Content Learning through Technology for SWD
1b. Demonstrating Knowledge of Students ▪ Child and adolescent development ▪ Learning process ▪ Special needs ▪ Students' skills, knowledge, and language proficiency ▪ Students' interests and cultural heritage	▪ Learning about students' cultural, religious, family, intellectual, and personal experiences and resources for use in instruction (12)	▪ Use multiple sources of information to develop a comprehensive understanding of a student's strengths and needs (4) ▪ Conduct functional behavioral assessments to develop individual student behavior support plans (10)	▪ Practices to support EL learning (see Gersten et al., 2007; Baker et al., 2014; NASEM, 2017; Ceedar Center EL IC) ▪ Culturally responsive teaching practices (see, CEEDAR Center IC on CRP) ▪ Comprehensive interventions for students with learning disabilities (see, NCII) - Student-centered teaching

Danielson Framework (Domains, Components, Elements)	TeachingWorks High-Leverage Practices	CEC High-Leverage Practices	Recommended Evidence-Based Practices
GenED	***GenED***	***SPED***	***ALL***
1c. Setting Instructional Outcomes ▪ Value, sequence, and alignment ▪ Clarity ▪ Balance ▪ Suitability for diverse learners	▪ Setting long- and short-term learning goals for students (13)	▪ Identify and prioritize long- and short-term learning goals (11) Systematically design instruction toward a specific learning goal (12)	▪ Interventions ▪ Teacher expectations - Goals
1d. Demonstrating Knowledge of Resources ▪ For classroom use ▪ To extend content knowledge and pedagogy ▪ Resources for students			▪ Response to Intervention ▪ Tactile stimulation programs ▪ Visual-perception programs
1e. Designing Coherent Instruction ▪ Learning activities ▪ Instructional materials and resources ▪ Instructional groups ▪ Lesson and unit structure	▪ Designing single lessons and sequences of lessons (14) ▪ Checking student understanding during and at the conclusion of lessons (15)	▪ Adapt curriculum tasks and materials for specific learning goals (13)	- CEEDAR Center IC – EBPs for Mathematics - CEEDAR Center IC – EBPs for Writing Instruction - CEEDAR Center IC – EBPs for Reading Instruction, Grades K-5 - CEEDAR Center IC – EBPs for Reading Instruction, Grades 6-12
1f. Designing Student Assessments ▪ Congruence with instructional outcomes ▪ Criteria and standards ▪ Design of formative assessments ▪ Use for planning	▪ Selecting and designing formal assessments of student learning (16)		▪ - Formative assessments ▪ - Make data part of an ongoing cycle of instructional improvement ▪ - Teach students to examine their own data and set learning goals ▪ - Establish a clear vision for schoolwide data use

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GenED	***GenED***	***SPED***	***ALL***
			▪ - Provide supports that foster a data-driven culture within the school ▪ - Develop and maintain a districtwide data system. ▪ - WWC – Using Student Achievement Data to Support Instructional Decision Making
2. Classroom Environment			
2a. Creating an environment of respect and rapport ▪ Teacher interaction with students, including both words and actions ▪ Student interaction with students, including both words and actions	▪ Building respectful relationships with students (10)		▪ Classroom cohesion ▪ Peer influences ▪ Teacher-student relationships ▪ Social skills programs ▪ WWC – Building Decision Skills
2b. Establishing a Culture for Learning ▪ Importance of content and of learning ▪ Expectations for learning and achievement ▪ Student pride in work		▪ Establish a consistent, organized, and respectful learning environment (7)	Explicitly teach core values and prosocial behavior Cross-age buddies Class meeting lessons School-wide community activities Caring School Community
2c. Managing Classroom Procedures ▪ Instructional groups ▪ Transitions ▪ Materials and supplies ▪ Performance of classroom routines	▪ Implementing norms and routines for classroom discourse and work (5)		▪ Maximize structure ▪ Post, teach, review, monitor, and reinforce positively-stated expectations ▪ - Nonverbal cues ▪ - Explicitly teach transition procedures and expectations

Danielson Framework (Domains, Components, Elements)	TeachingWorks High-Leverage Practices	CEC High-Leverage Practices	Recommended Evidence-Based Practices
GenED	***GenED***	***SPED***	***ALL***
▪ Supervision of volunteers & paraprofessionals ▪ Response to student misbehavior			▪ - Center for Behavioral Education and Research – EBPs in Classroom Management
2d. Managing Student Behavior ▪ Expectations ▪ Monitoring student behavior ▪ Response to student misbehavior	▪ Specifying and reinforcing productive student behavior (7)	▪ Teach social behaviors (9)	- Check In / Check Out - Check, Connect, and Expect - Prevent-Teach-Reinforce - Behavioral organizers / adjunct questions - Functional Behavior Assessments - When/Then - CEEDAR Center IC on Classroom & Behavior Management ▪ CEEDAR Center IC on Improving Challenging Behaviors of SWD
2e. Organizing Physical Space ▪ Safety and accessibility ▪ Arrangement of furniture and use of physical resources	▪ Implementing organizational routines (8)		▪ Tactile simulation programs
3. Instruction			
3a. Communicating with Students ▪ Expectations for learning ▪ Directions for activities ▪ Explanations of content ▪ Use of oral and written language (for comprehensible input)	▪ Explaining and modeling content, practices, and strategies (2)	▪ Use explicit instruction (16) ▪ Teach students to maintain and generalize new learning across time and settings (20)	▪ Teacher Clarity - Communication strategies Ask open-ended questions Model active listening
3b. Using Questioning & Discussion Techniques ▪ Quality of questions / prompts	▪ Eliciting and interpreting individual students' thinking (3)	▪ Use cognitive, metacognitive, and organizational	▪ Classroom discussion ▪ Meta-cognitive strategies ▪ Questioning

Danielson Framework (Domains, Components, Elements)	TeachingWorks High-Leverage Practices	CEC High-Leverage Practices	Recommended Evidence-Based Practices
GenED	***GenED***	***SPED***	***ALL***
▪ Discussion techniques ▪ Student participation		skills/strategies to support learning and independence (14)	▪ Self-verbalization & self-questioning
3c. Engaging students in learning ▪ Activities and assignments ▪ Grouping of students ▪ Instructional materials and resources ▪ Structure and pacing	▪ Leading a group discussion (1) ▪ Setting up and managing small group work (9)	▪ Use strategies to promote active student engagement (18) ▪ Use flexible grouping (17)	▪ Peer tutoring ▪ Think-pair-share
3d. Using assessment in instruction ▪ Assessment criteria ▪ Monitoring of student learning ▪ Feedback to students ▪ Student self-assessment and monitoring of progress	▪ Interpreting the results of student work, including routine assignments, quizzes, tests, projects, and standardized assessments (17) ▪ Providing oral and written feedback to students (18)	▪ Interpret and communicate assessment information with stakeholders to collaboratively design and implement educational programs (5) ▪ Use student assessment, analyze instructional practices, and make necessary adjustments that improve student outcomes (6) ▪ Teachers provide positive and constructive feedback to guide students' learning and behavior (8)	▪ Feedback ▪ Mastery learning ▪ Frequency/effects of testing ▪ Student rating of teaching - Providing formative evaluation
3e. Demonstrating Flexibility & Responsiveness ▪ Lesson adjustment ▪ Response to students ▪ Persistence	▪ Coordinating and adjusting instruction during a lesson (6)	▪ Provide intensive instruction (21) ▪ Use assistive and instructional technologies (19)	- Problem-solving teaching - Teaching strategies
4. Professional Responsibilities			

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4a.Reflecting on Teaching ▪ Accuracy ▪ Use in future teaching	▪ Analyzing instruction for the purpose of improving it (19)	▪ Organize and facilitate effective meetings with professionals and families (2)	▪ Micro Teaching
4b. Maintaining Accurate Records ▪ Student completion of assignments ▪ Student progress in learning ▪ Non-instructional records			
4c.Communicating with Families ▪ Information about the instructional program ▪ Information about individual students ▪ Engagement of families in the instructional program	▪ Talking about a student with parents or other care givers (11)	▪ Collaborate with families to support student learning and secure needed services (3)	- Provide opportunities for parental involvement - Class website and/or newsletter - Emails and phone calls to parents/guardians
4d.Participating in a Professional Community ▪ Relationship with colleagues ▪ Participation in school and district projects ▪ Involvement in culture of professional inquiry ▪ Service to school			▪ Collaborative teacher efficacy ▪ Principals and School Leaders
4e. Growing & Developing Professionally ▪ Enhancement of content knowledge and pedagogical skill ▪ Receptivity to feedback from colleagues ▪ Service to the profession		▪ Collaborate with professionals to increase student success (1)	- Professional development

Danielson Framework (Domains, Components, Elements)	TeachingWorks High-Leverage Practices	CEC High-Leverage Practices	Recommended Evidence-Based Practices
GenED	***GenED***	***SPED***	***ALL***
4f. Showing Professionalism ▪ Integrity/ethical conduct ▪ Service to students ▪ Advocacy ▪ Decision-making ▪ Compliance with school and district regulation			- Teacher credibility