OCCUPATIONAL THERAPY
COLORADO STATE UNIVERSITY

Equine Assisted Learning Through an Occupational Therapy Lens: A Programmatic Perspective

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BACKGROUND

Literature Review:

- Children with sensory processing disorder (SPD) often face challenges with self-regulation, engagement, and participation in classroom and barn-based learning (Koenig & Rudney, 2010; Butler, 2025).
- Alternative schooling options are growing in popularity, especially in Colorado, as families seek non-traditional education (Hendrickson, 2023).
- Despite benefits, these programs often lack structured sensory supports due to financial, policy, and geographic barriers (Koenig & Rudney, 2010).
- Without proper support, students risk academic difficulties, social isolation, and increased stress (SPD Foundation, 2014).
- Sensory challenges—such as over- or under-responsiveness to sound, touch, and movement—can cause stress, avoidance behaviors, and decreased engagement (Singer, 2015; Schueler, 2024).

Gaps: Limited research on Occupational Therapy's (OT) role in the equine assisted learning (EAL) environment and use of evidence-based strategies for sensory-informed interventions in the alternative education setting.

THEORTICAL GROUNDING

PEOP Model (Christiansen, Bass, & Baum, 2014)

- Highlights the importance of physical, social, and sensory environment for occupational engagement
- Supports OT interventions in EAL that promote occupational participation/performance and the academic environment

Dunn's Model of Sensory Processing (Dunn, 2007)

- Explains individual differences in sensory processing and their impact on participation and performance
- Provides framework for tailoring environmental modifications and activity adaptations in EAL

GOALS AND OBJECTIVES

Project Goal: to explore and clarify the role of occupational therapy within the EAL setting to increase students' engagement and occupational performance in both classroom and barn environments.

Project Objectives:

1. Needs Assessment (by week 4)
Observe students and interview teacher to identify environmental and occupational performance challenges.

2. Professional Observation (by week 6)
Interview and observe occupational therapists and Certified Therapeutic Riding Instructors conducting equine assisted therapy and equine assisted activities.

3. Classroom Proposal (by week 12)
Create sensory-friendly classroom blueprint and develop environmental intervention strategies.

4. Resource Materials (by week 12)
Develop resources to support regulation and social emotional learning.

ACTIVITIES

Classroom Proposal

- Alternative seating options for focus and regulation
- Calming light options for reduced overstimulation
- Managing noise for regulation
- Cozy corner for self-regulation

Resource Materials

- Support arousal levels for learning (breathing strategies, animal walks, etc)
- Social Emotional Learning (Zones of Regulation, journaling, etc)

Defining OT's role in EAL

- Supporting sensory processing, regulation, motor skills, and functional participation to help students engage meaningfully
- Environmental modifications, program development, staff training, and interdisciplinary collaboration

EVALUATION

Formative Evaluation

- Use of Google Sheet tracker to monitor weekly progress and deadlines
- Weekly meetings with capstone mentor
- Ongoing feedback through observation logs, meetings with the educator, and content mentor consultations
- Adjustments were made to activities and classroom based on real-time feedback

Summative Evaluation

- Post-project surveys from educator, interns, and students assessed clarity, usability, feasibility, and perceived impact of sensory tools, regulation strategies, and social emotional learning activities.

FINDINGS

Student Survey Results

- 75% felt the content was accessible, but 25% struggled, suggesting instructional differentiation may still be needed.
- 65% felt the sensory tools like fidgets increased their ability to focus and engage in seated tasks.
- 55% felt more regulated and able to focus on learning after completion of exercises like breathing, wiggle breaks, etc.

Intern Survey Results

- Both interns strongly agreed that the supports align with student needs; interns felt more confident addressing sensory needs
- Intern 1 observed an increase in consistent outlets for regulation, increased peer inclusion and social engagement, and improved student focus during seated tasks compared to last year.

Educator Survey Results

- Strong agreement across all categories:
  - Materials are clear
  - Increased confidence addressing sensory needs
  - High willingness to use strategies
- Notable increase in student participation and performance during academic tasks compared to last year.

CONCULSION

Outcomes:

- Immediate: Improved student regulation, focus and engagement. Increased educator and intern confidence with sensory and social emotional resources.
- Long-Term: Demonstrated feasibility of OT integration in alternative educational settings and strengthened student self regulation and occupational performance/participation.

Sustainability:

- Foundation started for ongoing OT consultation and educator training.
- Durable sensory tools and systems in place for continued use.

Impact

- Enhanced inclusivity and participation for diverse learners.
- Elevated educator capacity and highlighted OT's role in EAL environments.

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REFERENCES

Please scan to see references, logic model, and deliverables.