Building the Bridge Between Neuroscience and Education for Pre-Service and In-Service Teachers to Promote Inclusion for Students With Disabilities

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Background
- Prior to 1975, children with disabilities were excluded from attending public schools. Parents’ options were limited: they could either educate their children at home or pay to send them to an institution.
- Definitions of inclusion and school-based inclusion practices vary greatly among the states.
- Teachers’ lack of knowledge and skills can exclude students from learning.
- Teachers and pre-service teachers are hesitant about providing a successful inclusive experience.
- Teacher preparation programs and school districts are not preparing general education teachers to teach students with disabilities.

With neuroeducation:
- Collaborative partnerships form among experts in neuropsychology and education.
- The findings of neuroscience make teaching practices more effective.
- Neuromyths are demystified.
- Teachers are more successful and feel more skilled in their profession when they understand how the brain works.
- Improved educational outcomes are reported for students.

Improving Teacher Preparation and In-Service Programs
- School systems are responsible for adhering to federal and state laws and regulations, and for improving instruction for students with disabilities.
- Reforms in educational policy are critical for the implementation of effective inclusive practices.
- Restructuring teacher preparation programs and providing quality professional development and consultative support to in-service educators will provide educators with the knowledge and skillset needed to promote inclusive practices.

Recommendations for Teacher Preparation Programs
- Improve regulations to strengthen teacher preparation programs.
- Create programs that have specialized accreditation and rigorous exit requirements.
- Move away from specialization and compartmentalization to more universal teaching approaches that close the general education and special education divide (Robinson & West, 2015).
- Promote the inclusion of students with disabilities as a common and achievable mindset and educational practice.
- Restructure coursework using a conceptual framework that provides intensive instruction in neuroscience and brain development in order to prepare pre-service teachers.

Recommendations for In-Service Programs for Educators
- Develop focus groups tasked with brainstorming ways to bridge neuroscience and education.
- Make use of web-based professional development services.
- Encourage expert teachers to serve as model teachers and coaches.
- Offer Maryland State Department of Education credits for continuing education coursework.
- Hire education consultants from local institutions such as the Center for Innovation and Leadership in Special Education (CILSE) at Kennedy Krieger Institute.
- Use evaluation and accountability systems when implementing inclusive practices.
- Make cutting-edge research and resources more accessible to educators through blogs and infographics.

References

Maryland Center for Developmental Disabilities
at Kennedy Krieger Institute

For more information, visit our website at MCDD.KennedyKrieger.org.