Research Assessment #9

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Subject: Education and Child Brain Development

Source:

Rimm-Kaufman, Sara E., and Jacqueline Jodl. "Educating the Whole Learner." Educational Leadership, vol. 77, no. 8, May 2020, pp. 28–34. EBSCOhost, search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1255572&site=ehost-live.

Assessment:

Early education is pivotal to brain development in children. Inadequate or improper education may result in decreased intelligence or other learning problems as the child grows up. This article studies neuroscience and the methods in which childhood educators can maximize the students' education. In the last two decades, the education system has slowly realized the importance of not basing judgments of students' academic success on their test scores as it is not an accurate representation of their intelligence. Initially, test scores were intended to measure the amount of information taught, not the amount of information learned by the students. As the education system is shifting focus from measuring what has been learned to better understanding the process of how students learn, there is an increase in holistic approaches to education.

Studies show that the brain and its development is subject to change, growth, and intervention over time. It is very malleable meaning that childhood experiences directly have an

effect on its formation as a child grows up. Prenatal drug exposure, poverty, and environmental toxins can affect a baby's brain development leading to problems later in life. Depending on their immediate experiences, relationships, and environments, a child may require different education due to different strengths and vulnerabilities. Social class and wealth even play a role in brain development: children from low-income families require a proper upbringing rather than their biological factors, and children from higher-income families require less of a proper upbringing and external factors when looking at IQ. During early childhood, high-quality parental education, as well as school education, is vital in creating a high-quality learning environment and vast growth. It is important to incorporate safe and secure learning settings as well as the presence of adults who students perceive as people with their best interests in mind which prompts students to learn easier. If these learning settings are not met, it may harm children's brain development.

This assertion was tested through interviewing fourth-grade teachers using a PBL curriculum to teach a Next Generation Science Standards-aligned lesson on circuits, electricity, and energy sources. In one class, a teacher utilized science, social-emotional learning, math, and language arts standards as students learned about sources of electricity and ways of reducing electricity use. The activity prompted excitement in the students about learning, boosted the relevance of science, and gave students a chance to apply skills across cognitive, social, and emotional pursuits.

Overall, an increasing body of research conveys that mindfulness training in education improves teacher and student well-being, reduces stress and burnout, and increases efficacy. This study can be put to use by teaching educators that they must recognize that supporting the

whole learner (student as a whole) is rooted in the best developmental and neurological science. This means that educators must focus on more than solely the exam scores and curriculum performance, and rather it is important to focus on how the student is learning as a whole to measure their performance. This is important as the future generation of students can grow to outperform any past generation of learners.