Neuroscience teaching and learning education essay

Education

NameCourseInstructorJanuary 12th 2013IntroductionEffective teachers are always examining ways to improve student accomplishment. Since there is no perfect, single solution, teachers rely on research in a bid to guide their practice. Recent scientific innovations have allowed teachers to examine the way the brain works. The stirring learning about the way the brain functions and its impact on learning have the potential to revolutionize learning and teaching. Recent brain research has provided new knowledge about the numerous ways people learn. And, brain based learning has resulted from researchers and teachers applying the findings of brain research to guide their teaching practice. Brain based teaching entails the execution of carefully planned principles with due considering of their effect during, before and following each lesson. The author of this paper will discuss certain ways information about the anatomy and physiology of the brain can be applied in the classroom in order to increase learning and achievement of students. DiscussionsBrain based learning has emerged into contemporary classrooms creating new teaching practices, reading and memory. In addition to this, numerous studies relate brain research to best practices into classrooms for learning. Present research in brain based learning dictates that learners require differentiated tactics in order to accommodate various learning styles for reading and learning. Wolfe (1998) asserts that "...in order to improve practices in learning and teaching, effective brain based research should be included in school curriculum in order to illustrate how the brain learns and the reason it does not..." Studies on brain-based learning may affect teaching approaches and practices in a positive way. The forerunners in brain based learning such as Wolfe, and others brought the study of the

brain as well as its cognitive functions away from the conventional neuroscience studies and into the educational sector with new approaches of best teaching practices in the classroom. It is imperative for teachers to use the latest research when teaching reading in the classroom for efficient learning of all children irrespective of socioeconomic or cultural backgrounds. In order to promote better learning and reading among students, curriculum should be adapted to meet the learning styles of students according to present brain research (Slavkin, 2004). Best practices and approaches such as leveled reading programs, teaching multiple intelligences and authentic assessments in brain based learning can create a better learning environment than the conventional classrooms. Conventional learning methods like memorization and rote learning are futile with today's students with exceptional learning styles and backgrounds in the changing times of this century according to brain research (Jensen, 2005). Studies on brain based learning have evolved to bring the most efficient educational teaching methodologies and pedagogy for the ever changing patterns of learning. This information can be applied in the classroom in various ways. First, teachers should use multifaceted teaching approaches that attract individual interests and that let the students express their visual, auditory, emotional or tactile preferences. Teachers should also attempt to create an environment of relaxed alertness, which is high in challenge but low in threat. Teachers can also use tactics, which mimic or create real world experiences such as using demonstrations, metaphors, and incorporation of content areas, which embed ideas in authentic experience. Educators should also use hooks to encourage personal connections. They should also present

content through various teaching strategies such as group interactions, physical activities, individual learning times, musical interpretations, and artistic variations to help coordinate student experiences. Knowledge of how students learn with the thinking brain process will enable teachers recognize any learning or reading problems and help create best practices for intervention programs and close the accomplishment gap in learning or reading in the classroom. Few studies relate to the primary readers or learners with brain research. Teachers need time to reflect on their teaching practice, to participate in substantive dialogue with other people about what they are achieving and the reasons why, and to help other teachers in carefully examining new innovations and research to determine if they validate their practice, necessitating them to rethink their teaching practice, or both. Sharing practices among colleagues will smooth the progress of better understanding how to teach brain based learning in the classroom. It will also show what needs to be changed in the curriculum and how students learn best in order to improve overall learning and reading. It is very imperative for teacher leaders to understand brain-based learning because the ideal brain based learning can be developed by any educator who opts to read current research about the latest brain based factors in journals and texts. However, leaders should use caution to execute brain research efficiently due to the fact that not all research directly applies to learning. According to Blakemore & Frith (2005), teacher leaders should execute flexible curriculum and reflect on effective practices that do or do not work with students in learning with brain research. ConclusionCurrent research in brain-based learning reveals that conventional curriculums of learning and

rote memorizations no longer apply for successful teaching in the classrooms. Teaching approaches and practices have to change as the learning styles of students evolve with the new challenges in the current world. Effective teaching practices can be achieved by adapting the present curricula to best practices of brain-based learning and research. Lastly, closing the gap between brain-based learning and conventional teaching or pedagogy is the eventual goal for teachers to reach the needs of students in learning.