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Sommario/riassunto The advent of educational neuroscience, a transdisciplinary exercise

emerging from cognitive neuroscience and educational psychology, is the examination of physiological processes that undermine, support, and enhance the capacities to learn and create. The physiological underpinnings of learning and creativity each impact human ability and performance and mediate the processes of becoming educated, expert, and valued. Evidence of learning provides support to an ongoing canon, process, system, field or domain, while evidence of creativity results in an elaboration or departure from an ongoing canon, process, system, field, or domain. Educational neuroscience extends a challenge to scholars from multiple contexts to engage in the characterization and exploration of human ability and performance in these realms. The role of context, both environmental and interoceptive, is an integral part of efforts in educational neuroscience and in theories of constructivist learning to contribute ecologically valid insight to the pragmatic processes of learning and creativity. Examination at this level of specificity is vital to our ability to educate and support human potential in the 21st century. This Research Topic examines the neural basis of

cognitive states and processes that influence knowledge and skill acquisition tied to the demonstration of human ability and performance across individual differences and in multiple contexts including STEM learning and the arts.