

Abstract Submitted
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xBL: Implementations of Student-Centered Learning and Data Driven Assessment of Competency.¹ ADEBANJO ORIADE², University of Delaware — *x* Based Learning (*x*BL) is our multi-domain, diversified approach to guide learners, and citizens, to improved 21st-century skills. The diversity is captured in $x \equiv \{\mathbf{P}roblem, \mathbf{E}xperiment, \mathbf{N}ews, \mathbf{C}ollaboration, \mathbf{I}nquiry, \mathbf{L}ecture\}$ components of instruction. At meetings we have, in play, combinations of two or more of the six methods of engaging active learning. *x*BL is inspired by reflective practice and literature on science, Physics, education research. During interaction with others in instructional teams and with students we engage cognitive, affective and psychomotor domains. The results presented are from iterative (over 9 semesters) reviews of who our students are (primarily as learners), the spaces students and instructors work in, the learning goals of the course, and demands to provide (quantitative) evidence of competencies. Personnel, architecture, and technology of the PBL studio we work in provides affordances that make this approach to instruction, learning and assessment possible. In this classroom, high and low technology is used, such as when after a record of predictions on the wall, with Vernier's Video-Physics students analyze captured motion of a Yoyo. A sample *x*BL activity, "Yoyo Momentum", is presented.

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