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# CHEMISTRY LABORATORY INSTRUCTIONAL MODELS, HOW DO YOU CHOOSE?

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How do you decide how to structure your laboratory experiments or programs? Amidst significant workloads, it can often be daunting to effect meaningful change across a single experiment, let alone a laboratory program. In this study, we have synthesised the chemistry education literature base to identify five common chemistry laboratory instructional models (CLIMs) with defined steps or characteristics: Argument Driven Inquiry (ADI), Course-Based Undergraduate Research Experiences (CUREs), Peer-Led Team Learning (PLTL), Predict-Observe-Explain (POE), and the Science Writing Heuristic (SWH). The intention of this analysis was to offer a concise summary, including published examples, for an instructor to choose between when considering the design of their teaching laboratory activities. Further value has been added by analysing each CLIM through the lens of three different theoretical frameworks (cognitive load theory, communities of practice and constructivism). This presentation will offer brief summaries of each CLIM and will explore the potential benefits and challenges identified in each as per the theoretical frameworks raised.

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