

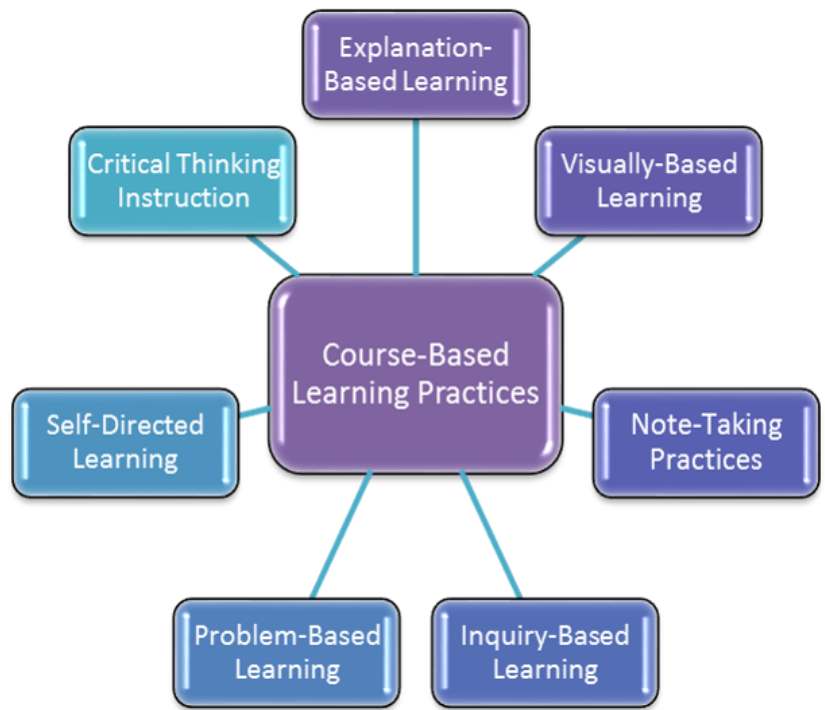
## Research on Pre-Service Personnel Preparation

A meta-synthesis of high impact practices for preservice teacher professional preparation was prepared, for ECPC through a formal contract with Pucket Institute (Dunst et al, 2018), to inform institutes of higher education (IHE) on faculty-related practices that have been found to increase university student learning outcomes. A total of 130 studies were included in the meta-synthesis, with a combined total of 3 million+ study participants. Findings from this analysis contribute to the improvement of pre-service outcomes by providing evidence of seven high impact faculty instructional practices that can be embedded into IHE policy, programs and faculty instruction that prepare personnel who work with children birth-5 years old. Ultimately, early childhood (EC) and early intervention (EI) pre-service educators who experience a range of faculty instructional practices are more likely to use instructional strategies within their own EC/EI classrooms and with their students.

### What are Course-Based Learning Practices?



Course-Based Learning Practices describe the instructional strategies used by faculty to engage pre-service professionals during face to face classroom experiences. This study examined the following seven types of course-based learning strategies:



### How Was it Measured?



These seven different types of learning methods were included in twenty-one meta-analyses that measured student performance and beliefs. Student performance was measured in a variety of ways including achievement, knowledge acquisition, and course grades. Student belief appraisals were examined by measuring self-efficacy beliefs and attitudes toward the learning practices of problem-based and visually-based learning.

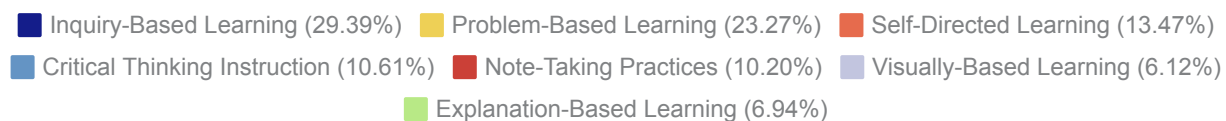
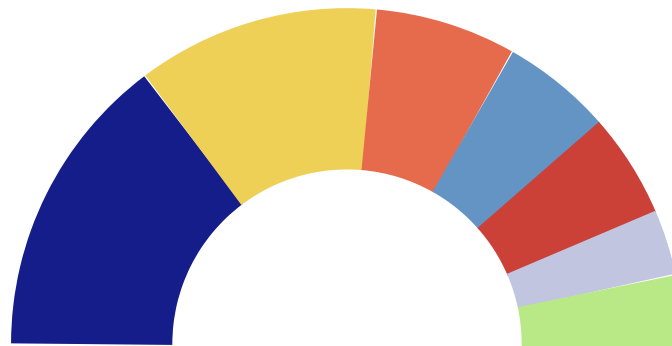
- 1 Student Field Experiences
- 2 Teaching Methods of Instruction
- 3 Clinical Supervision
- 4 Faculty Coaching & Instructional Practices
- 5 **Course-Based Learning Practices**
- 6 Web-Based & E-Learning Practices
- 7 Cooperative Learning Practices

## What Did the Research Find?



The results showed:

- Inquiry-based learning, including discovery learning and project-based learning, had positive effects on the quality of teachers' use of teaching practices and on university student achievement.
- Compared to the other six strategies, inquiry-based learning had the largest impact on student learning.
- Problem-based learning, self-directed learning, critical thinking instruction and different types of note-taking all showed a small positive impact on student learning.
- Visually-based learning and explanation-based learning require less student engagement which could account for a low impact on student learning when these strategies were used.
- Problem-based learning was positively related to student belief appraisals.
- Visually-based learning experiences were related to negative student belief appraisals.



## How Pre-service Preparation Programs Can Use this Information



Pre-Service Preparation Programs can:

- Work with IHE faculty to replace visually-based learning experiences with high impact inquiry-based learning experiences including discovery and project-based learning.
- Provide IHE faculty information on how to embed student learning experiences that include problem-based learning.
- Provide resources to students on different types of note-taking practices to be used in coursework.

## References



Dunst, C., Hamby, D., Howse, R., Wilkie, H., & Annas, K. (2019). Metasynthesis of preservice professional preparation and teacher education research studies, *Education Sciences*, 9(50), 1-36.

[www.ecpcta.org](http://www.ecpcta.org)

The Early Childhood Personnel Center is a project of the A.J. Pappanikou Center for Excellence in Developmental Disabilities at UConn Health. The Center is funded through cooperative agreement number H325B170008 from the Office of Special Education Programs, U.S. Department of Education.