Selected Teaching & Course Design Artifacts

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A practice-connected portfolio

This collection illustrates how I design professional learning experiences that connect educational research with classroom decisions. Selected examples span undergraduate and graduate teacher preparation, rural educator learning, inquiry-based instruction, and reflective professional growth.

Four teaching-design examples

Area	Evidence illustrated
Secondary Mathematics Methods	Ambitious mathematics teaching, cognitive demand, task analysis, differentiated graduate-level expectations, aligned assessment
Inspired Education and Wellbeing: Learnings from Finland	Inquiry and outdoor learning, reflective journals, global competence, nature-based project assessment
Mindframes of Visible Learning	Co-facilitated learning, self-assessment, academic discussion, professional goal setting
Research-Based Instructional Practices	Self-audit, instructional rounds, teacher inquiry cycles, evidence-informed reflection

Publication note

These pages are concise portfolio adaptations of course materials supplied by the instructor. Institutional letterheads, campus contact details, administrative policies, and third-party copyrighted materials have been excluded. They are not copies of original institutional syllabi or representations of institutional approval. Full course records and official affiliations remain available in the academic CV.

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01 / TEACHER PREPARATION

Secondary Mathematics Methods

Undergraduate and graduate course design | Synchronous, collaborative instruction

Teaching purpose

Prepare secondary mathematics teacher candidates to design lessons that maintain intellectual challenge, make student thinking visible, and use assessment and discourse to guide instruction.

Selected course design elements

- Analyze cases of mathematics teaching to examine students' mathematical reasoning, classroom discourse, task selection, and equitable participation.
- Plan accessible high-level mathematical tasks using multiple representations and purposeful questioning.
- Use anticipated student responses to prepare for monitoring, selecting, sequencing, and connecting mathematical ideas during classroom discussion.
- Design standards-aligned middle- and high-school lessons and a short coherent instructional unit that incorporates formative assessment, technology, and mathematical discourse.

Illustrative assignment sequence

Learning activity	Evidence of understanding
Teaching-case and task analysis	Identify where cognitive demand is maintained or reduced and propose justified teaching decisions.
Anticipating student thinking	Prepare likely solutions or misconceptions; plan questions and an instructional discussion sequence.
Lesson design and peer review	Develop and critique a standards-aligned lesson with a meaningful mathematical goal and multiple ways for students to show understanding.
Two-week unit design	Align learning goals, pre-assessment, formative evidence, summative assessment, differentiation, and technology integration.

Intentional undergraduate / graduate differentiation

Assignments use distinct expectations for undergraduate and graduate candidates. Graduate-level extensions require deeper connections to equity, instructional leadership, or curriculum decision-making, including explicit justification of pedagogical choices.

Source: supplied Secondary Mathematics Methods course-revision materials (2026). Examples paraphrased, with third-party textbook activities and institutional templates excluded.

Inspired Education and Wellbeing: Learnings from Finland

Graduate educator coursework | Winter 2024–2025 | Instructor-developed content

Teaching purpose

Translate insights from Finnish education into locally appropriate learning experiences, particularly in rural settings. Major themes include educator and student well-being, nature-based learning, inquiry, student autonomy, sustainability, and global competence.

Applied learning design

- Participants compare Finnish educational practices with their own school contexts and identify opportunities and limitations for adaptation.
- A sequenced reflective journal supports inquiry into trust, equity, well-being, outdoor learning, global citizenship, and sustainability.
- An authentic nature-based project asks educators to build a lesson or inquiry experience, align objectives and assessments, and anticipate effects on engagement and well-being.
- Collegial dialogue, outdoor experiences, and interdisciplinary planning bring course ideas into participants' professional settings.

Assessment structure

Component	Weight	What it demonstrates
Participation and collegial support	40%	Professional dialogue, engagement, collaboration, peer feedback
Reflective journal	35%	Critical connections between course ideas and classroom practice
Application and assessment project	25%	Feasible, well-aligned nature-based teaching design and reflective impact analysis

Representative authentic task

Design a nature-based learning experience centered on a question students could investigate outside the classroom. Identify relevant standards, learning intentions, assessment evidence, and strategies for supporting student agency. Explain how the design addresses local context and environmental responsibility.

Source: supplied ED 556 Finland syllabus and instructor-created assignment materials. Summary recreated without institutional letterhead or administrative content.

Mindframes of Visible Learning

Graduate professional learning | Summer 2023 | Co-facilitated course

Teaching purpose

Provide a structured professional learning experience in which educators analyze instructional beliefs, explore John Hattie's visible learning framework, and set inquiry-oriented goals for their practice.

Selected learning design

- A beginning self-audit asks educators to identify current beliefs about learning, instruction, and their professional role.
- Readings and guided tasks are paired with Socratic seminars, Philosophical Chairs, and other structured discussions.
- Participants write critical questions and compare colleagues' interpretations, connecting concepts to local school experiences.
- Individual coaching conversations support practical professional-goal development.
- A final letter to oneself consolidates learning and identifies specific future applications.

Assessment evidence

Learning product	Purpose
Self-assessment and reflection	Identify strengths, growth areas, and shifts in professional judgment.
Facilitated academic discussion	Use evidence and professional experience to examine complex instructional ideas.
Professional goal and final reflective letter	Connect course concepts to a self-selected development priority and intended next steps.

Credit for collaborative design

This one-credit course was co-facilitated with another educator; the original syllabus identifies a different primary grading instructor. This portfolio therefore describes it as collaborative work rather than sole course leadership.

Source: supplied 2023 Mindframes syllabus. The framework and book content remain attributed to their authors; only the course design approach is summarized here.

Research-Based Instructional Practices

Graduate professional learning | Spring 2023 | Primary instructor

Teaching purpose

Help practicing teachers study research-based instructional approaches, select focused practices, test them in their classrooms, and reflect with colleagues on evidence from implementation.

Course inquiry cycle

Cycle	Instructor-designed learning opportunity
1. Identify	Teachers complete a self-audit and select three instructional elements to study more deeply.
2. Investigate	Readings, jigsaw activities, and discussion build knowledge of selected instructional practices.
3. Implement	Teachers design and implement selected strategies, collecting observations or other classroom evidence.
4. Reflect	Coaching conversations, peer observations, and instructional rounds support interpretation and revision.
5. Share	Participants synthesize and communicate findings in a reflective paper or professional learning presentation.

Assessment and application

- Application activities connect three individually selected instructional elements to classroom implementation.
- Peer observation and instructional rounds create opportunities for non-evaluative professional inquiry.
- Final assessment offers a reflective written product or a collaborative-team presentation.

Source: supplied Spring 2023 Research-Based Instructional Practices syllabus. This is a selected adaptation of course structure, not an exact reproduction of institutional forms or policies.

Selected Course Feedback Evidence

Small-sample descriptive feedback | Private submissions summarized for public review

Finland course participant responses

A supplied evaluation workbook contains two response records for the Finland-informed course. Both respondents selected Agree or Strongly Agree when asked whether the course would help them improve instruction. The other questionnaire item addressed school administrators and was marked not applicable by both respondents.

Evidence from 2 response forms	What the responses support
Instructor and course strengths	Participants described the course as knowledgeable, practical, collaborative, and connected to Finnish education and local contexts.
Reported professional application	Respondents described designing a usable lesson, more intentional outdoor instruction, and attention to interdisciplinary sustainability.
Constructive suggestion	One participant requested additional time on sustainability; the other reported no suggestions for improvement.

Secondary Mathematics Methods narrative review

One additional individual course review described clear expectations, supportive communication, relevant analysis-of-teaching activities, mathematics warm-ups, and unusually specific feedback framed as questions for reflection. The reviewer also identified improvement opportunities around the sequencing of course readings, the placement of one final assignment, and cleanup of extraneous online-course content.

How I interpret this evidence

These comments provide useful formative feedback for ongoing course improvement, but they should not be treated as a comprehensive assessment of teaching effectiveness. The Finland evaluation sample is small (n = 2), the response rate is not known, and the mathematics narrative reflects one reviewer. No causal conclusions about student outcomes are possible from these materials.

Privacy and publication note

No raw evaluation responses, respondent identifiers, student work, individual grades, institutional logos, or unpublished institutional policy language are included in this public-facing adaptation. Any direct student quotations would require separate permission before public posting.

Sources: supplied Finland course response workbook and individual Secondary Mathematics Methods course review. Descriptions are paraphrased, not direct endorsements or independent evaluations.