Trees, Branches, and Sub-branches of the SoTL Taxonomy

1. Research Focus
1.1 Teaching and Learning

- Lecture
- Seminar
- Active learning
- Flipped classroom
- Problem based learning
- Project based learning
- Experiential learning
- Gamification
- Peer learning
- Conceptual learning
  - Threshold concepts
  - Concept maps
  - Concept inventories
  - Misconceptions
  - Preconceptions
- Curriculum/course design

1.2 Assessment

- Grading system
- Self-assessment
- Peer-evaluation
- Homework
- Assignment
- Feedback
  - Summative
  - Formative
- Rubric
- Portfolio
- Exam
  - Multiple choice
  - Open ended
  - Practical examination
  - Open book
  - Standardized
- Assessment models
  - Outcome-based learning
  - Competency-based learning
  - Mastery-based learning

1.3 Learning Tools and Technologies

- Slides/Presentation tools
- Multimedia
- Simulation
- Virtual reality
- Student response system
- Learning management system
- Electronic course portfolio

1.4 Equity in Learning

- Diversity
- Gender
- Transgender
- Sexual orientation
- Race/ethnicity
- Students with disabilities
- Socio-economic status
- Decolonization
- Language
- Religion
- Political
- Geopolitical conflict
- Natural disasters

1.5 Academic Support

- Mental health
- Physical health
- Mentoring
- Tutoring
- Academic advising
- Office hours
- Career advising

1.6 Student Success

- Motivation
- Engagement
- Attendance
- Graduation
- Retention
- Performance
- Identity
- Culture

1.7 SoTL Studies

- Defining SoTL
- SoTL policy
- Career advancement
- Institutional support
- Community of practice
- SoTL Identity
- Epistemology
- Research Quality
  - Reliability
  - Validity
  - Credibility
  - Rigour

Trees, Branches, and Sub-branches of the SoTL Taxonomy

2. Research Context

2.1 Discipline
- Provide the disciplinary information as broad (e.g., STEM, SoTL), or as narrow (e.g., Fine Arts, Quantum Physics) as needed

2.2 Learning Level
- Provide the level as broad (e.g., K-12, Graduate), or as narrow (certificate, first year) as needed

2.3 Setting
- Classroom
  - In-person
  - Virtual/Online
    - Synchronous
    - Asynchronous
    - MOOC
    - Blended
- Extracurricular
  - Field trip
  - Competitive project team
- Workshop
- Laboratory
  - Makerspace
- Studio
- Formalized work experience
  - Practicum
  - Co-op
  - Internship

2.4 Scope of Investigation
- Department
- Institutional
- Regional
- National
- Global

2.5 Population
- Student
  - International
  - Domestic
- Faculty
- Staff
- Instructor
- Teaching assistant
- Tutor
- Mentor
- Academic advisor

3. Research Approach

3.1 Research Method
- Quantitative
  - Descriptive statistics
  - Inferential statistics
  - Experimental research
  - Regression
- Qualitative
  - Case study
  - Content analysis
    - Discourse analysis
    - Document analysis
  - Ethnography
    - Autoethnography
  - Grounded theory
  - Narrative inquiry
  - Phenomenology
  - Phenomenography
- Mixed-methods
  - Sequential
    - Explanatory
    - Exploratory
  - Concurrent
- Reflection on practice
- Literature review
  - Systematic
  - Scoping
- Classroom action research

3.2 Data Source
- Surveys
- Interviews
- Focus groups
- Course deliverables
  - Discussion forums
  - Assignments
  - Homework
  - Exams
- Grades
- Institutional feedback forms
- Course material
  - Syllabus
  - Course outline
  - Content
  - Rubrics
  - Recorded lectures
- Classroom observation

Trees, Branches, and Sub-branches of the SoTL Taxonomy

3.3 Theoretical Framework
- Cognitive theories
  - Constructivism
  - Cognitivism
  - Metacognition
- Social cognitive theories
  - Humanism
- Variation theory of learning
- Affective theories
  - Behavior theories
  - Emotional learning
- Critical theories
  - Intersectionality
- Developmental theories
  - Adult learning