Sample Learning Activities: Implementation Science

Activity Title	Learning Objective(s) Addressed	Description / Instructions	Suggested Deliverable / Assessment
Case Study: Implementation — Barriers & Facilitators	Apply understanding of factors affecting implementation success (context, readiness, resources, stakeholder buy-in).	Provide students with 2–3 case studies of early childhood / early intervention programs that have attempted to implement an evidence-based practice (EBP). In small groups or individually, analyze each case and identify major barriers and facilitators to implementation. Consider organizational, staff, resource, cultural, and contextual factors.	Short memo or group presentation summarizing: (a) barriers/facilitators, (b) recommendations/strategies to support implementation, (c) potential risks and mitigation.
Implementation-Team Design Project	Translate theory into practice: design a team structure to support implementation with fidelity and sustainability.	Students select an EBP relevant to early childhood/special education. Then design an implementation team: define roles (e.g., coach, administrator, provider, data-manager), core functions (training, coaching, fidelity monitoring, data tracking), communication/decision flow. Justify how design addresses likely challenges (turnover, resource constraints, staff buy-in).	Written plan or slide deck: team composition, roles & responsibilities, core functions, rationale linking design to implementation success. (Optional: include draft "improvement cycle" [e.g., Plan-Do-Study-Act] for anticipated challenges.)
Implementation Mapping: Stage-	Understand and apply the multi-	Select an evidence-based practice (EBP).	A timeline or roadmap (e.g., table or Gantt-chart style)

by-Stage Plan for an EBP	phase nature of implementation (exploration → installation → initial implementation → full implementation).	Create a stage-by-stage implementation roadmap/planning chart. For each phase, specify: major activities; supports needed (training, coaching, resources, data systems); anticipated challenges; success milestones.	with annotations for supports, obstacles, contingency plans, and milestones.
Fidelity vs. Adaptation — Debate / Reflective Discussion	Explore and critically evaluate the tension between fidelity to EBP and necessary adaptation for real-world context.	Provide readings (or instructor-provided brief) about fidelity, adaptation, cultural/contextual adaptation, sustainability in implementation. Then host a structured class debate or reflective discussion: under what circumstances should adaptation be allowed or encouraged? What are the risks to fidelity / intended outcomes? How to balance fidelity and adaptation?	Short essay or reflection (or recorded group discussion) presenting a reasoned argument for or against adaptation under different scenarios, and strategies to manage fidelity/adaptation trade-offs.
Systems-Level Scaling-Up Strategy Analysis	Understand macro/system-level aspects of implementation — policy, funding, organizational infrastructure, equity across sites.	Present a scenario: e.g., a state or network wants to scale up an EBP across multiple early-childhood centers (urban + rural) with varied resources. Students identify key system-level factors (leadership, funding, training	Policy/strategy brief: key strategies for scale-up, stakeholder roles, resources/structures needed, timeline, risk/mitigation plan. (Optional: logic model or theory-of-change.)

		infrastructure, data systems, policy support) that must be addressed. Then propose an implementation strategy for scale-up.	
Quality Improvement (QI) Cycle: PDSA for an Implementation Challenge	Practice continuous quality improvement as part of sustaining implementation; monitor and refine practice over time.	Ask students to pick a realistic challenge related to implementing an EBP (e.g., low staff fidelity, inconsistent data collection, dropout). Using a PDSA (Plan–Do–Study–Act) framework, students design a small QI cycle: define aim, plan change, carry out change (Do), collect data & study results, propose next steps (Act).	PDSA worksheet / report: aim statement; plan; data collection plan; results interpretation; next-step recommendations.
Stakeholder & Context Analysis: Mapping for Implementation	Recognize the roles of various stakeholders and contextual influences in successful implementation.	Students identify all possible stakeholders for an EBP implementation (e.g., families, practitioners, administrators, funders, community agencies, policymakers) in a given early-childhood context. Then map stakeholder interests, influence, potential supports or barriers. Consider cultural, socioeconomic, organizational contexts.	Stakeholder map + brief commentary: interest vs influence chart, potential barriers/supports per stakeholder, recommended stakeholder engagement strategy.
Reflection & Practice Integration —	Build conceptual clarity about the importance and	Guided reflective discussion or journaling: prompt students to	Short written reflection (or oral discussion summary) capturing students' insights,

Why Implementation Science Matters	purpose of implementation science, especially bridging evidence and real-world practice.	reflect on questions like: "What does 'implementation science' mean in early childhood / special education?"; "Why is it important to move beyond efficacy studies to implementation?"; "What challenges in real-world settings make implementation difficult?"; "How can research be designed to improve real-world practice and equity?"	perceived challenges, and ideas for applying implementation science principles in real-world early childhood settings.