

A SYSTEMS APPROACH TO THE EXPLORATION OF ISSUES AS CURRICULAR CONTEXTS

Troy D. Sadler

School of Education

University of North Carolina at Chapel Hill



THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

CONTEXTUALIZING CURRICULUM & INSTRUCTION

- Problems
- Projects
- Phenomena
- Cases
- Issues
- Condensation on a beverage container as a problem, not an issue
- Issues as a form of PBL
- Not all PBL is issue-based

WHAT IS AN ISSUE?

- Societal challenge
- No straightforward solution
- Impacts on various groups with different interests
- Complex causal relationships that are difficult to track & predict
- Incomplete information
- “Wicked problems”



SOCIO-SCIENTIFIC ISSUES (SSI)

- Societal issues that connect to science
- Examples: climate change, food security, availability of water resources, genetic engineering, and the global energy consumption and conservation
- SSI as a context for science teaching and learning; a case of issue-based teaching more broadly

WHY USE ISSUES AS CURRICULAR CONTEXTS?

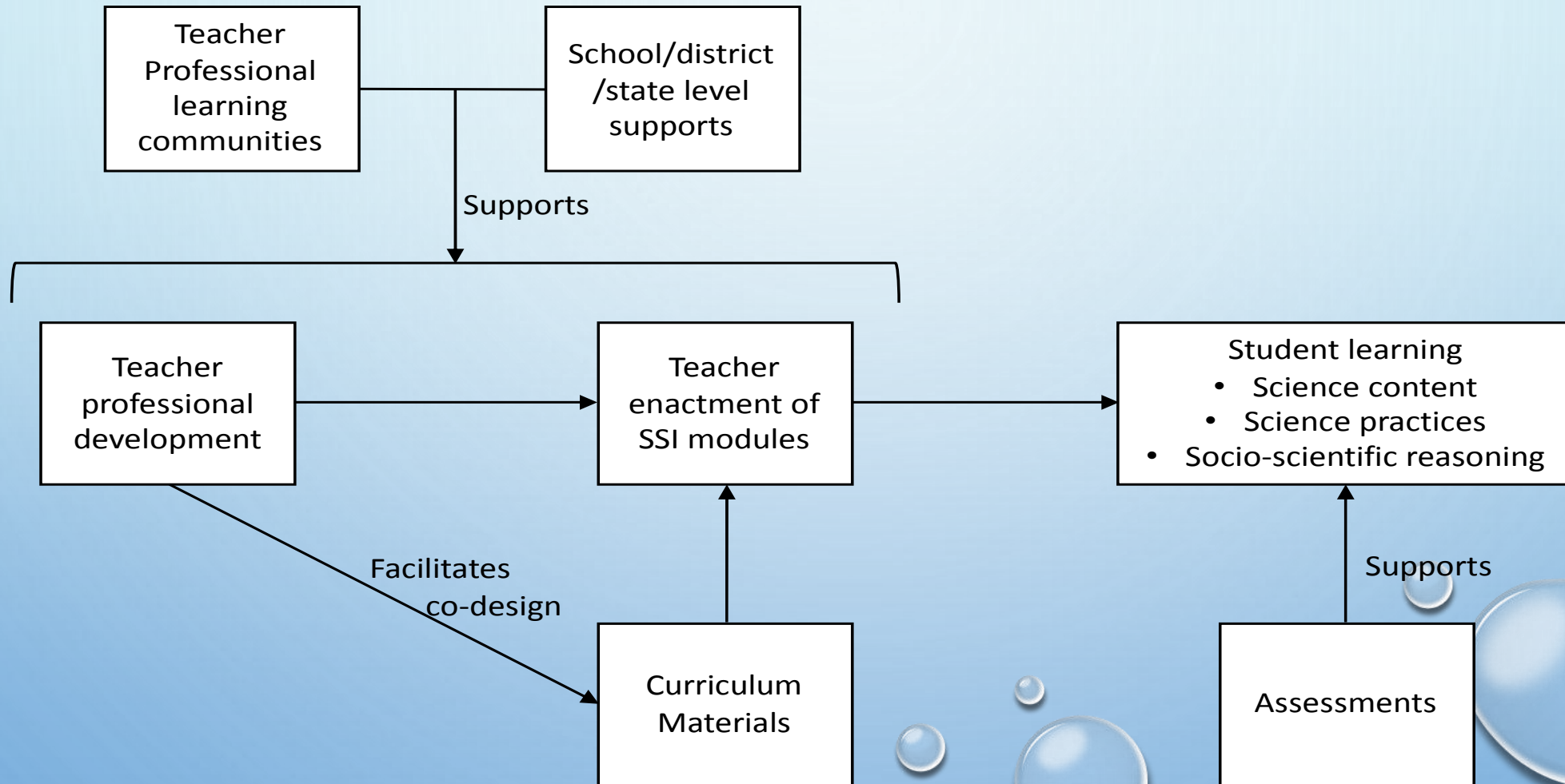
- Why do we teach? Help students develop the knowledge and practices necessary for their participation in society.
- Teaching isolated knowledge & skills is not enough
- How do we think about learning? Situated perspectives on knowing and doing influence my thinking.
- Contexts shape what learners can come to know and do.
- Therefore, learning opportunities ought to highlight chances to make sense of ideas and practices through the negotiation of issues that matter.

A SYSTEMS APPROACH

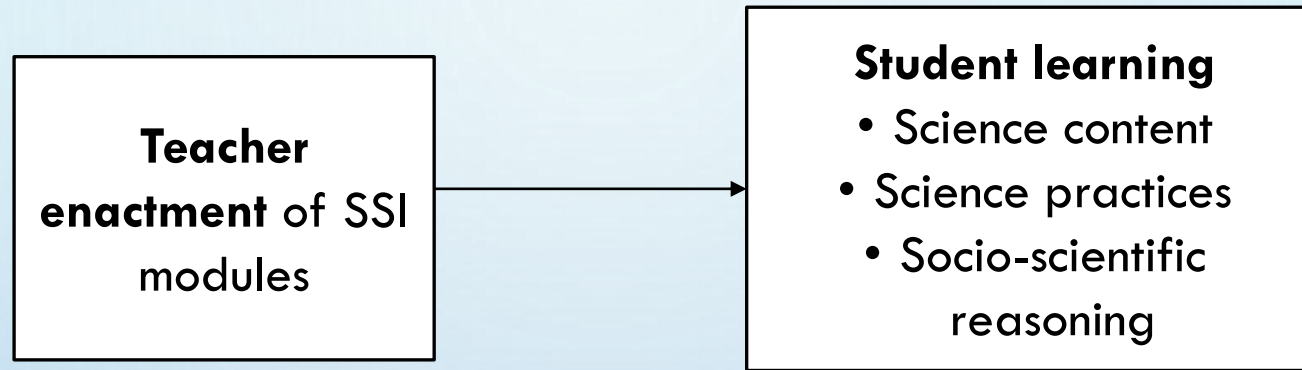


- Understanding how to impact education through issues based teaching necessarily involves multiple interacting parts.
- A system defined by a theory of change

THEORY OF CHANGE

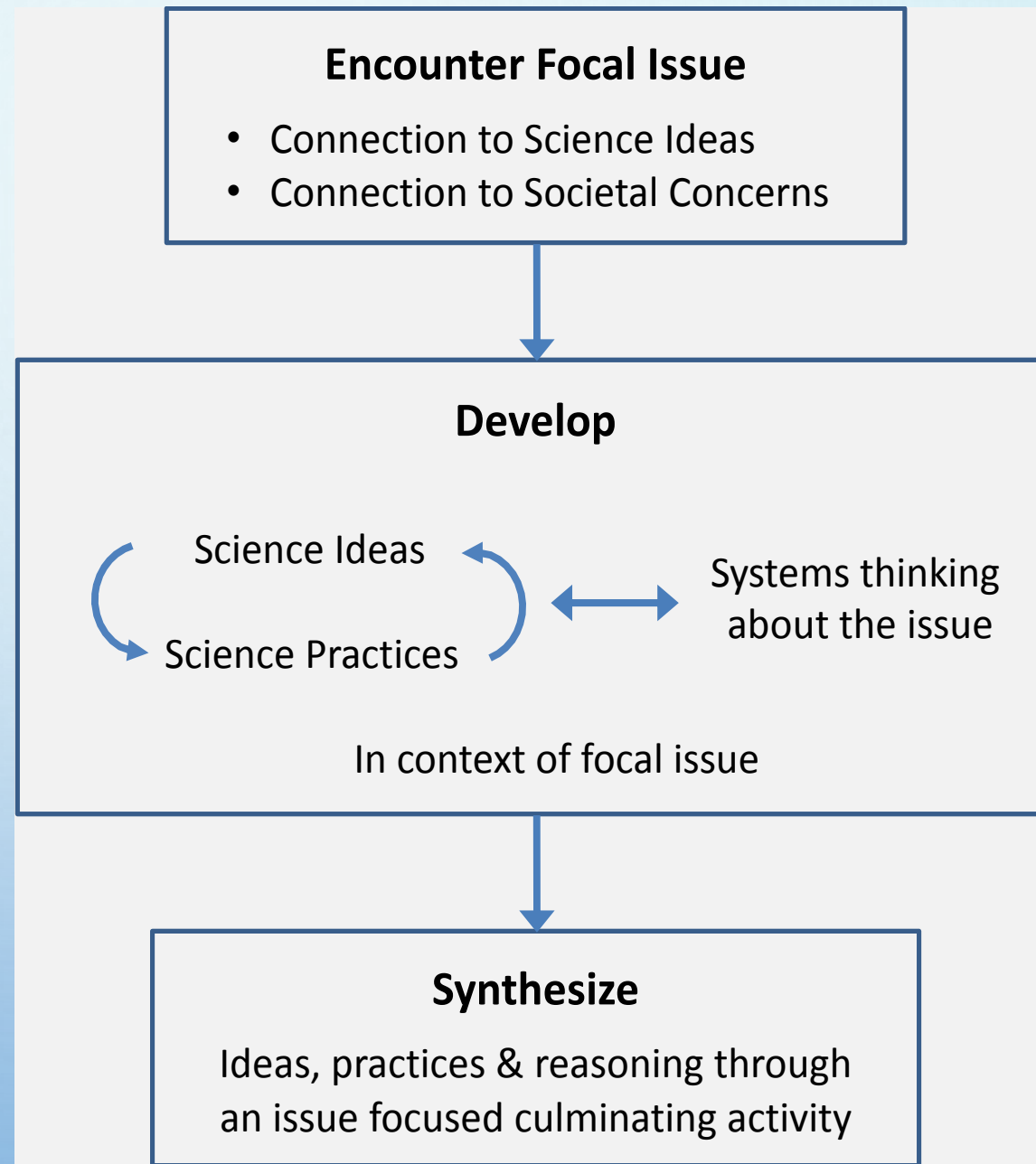


CENTRAL PREMISE:

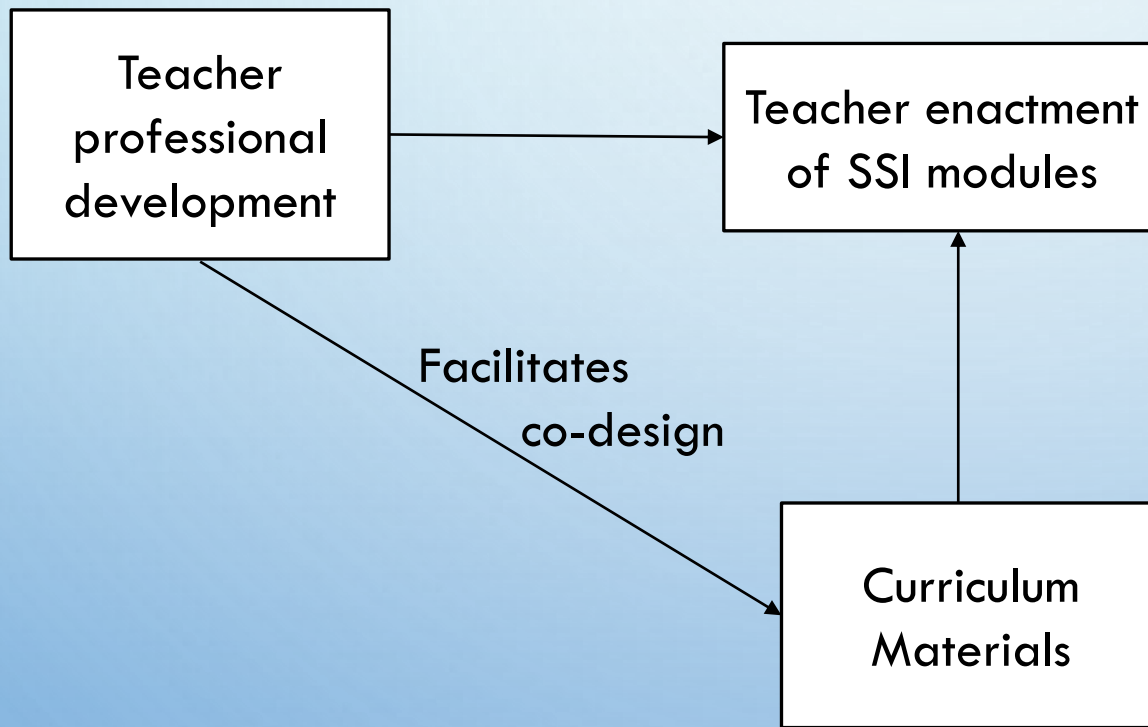


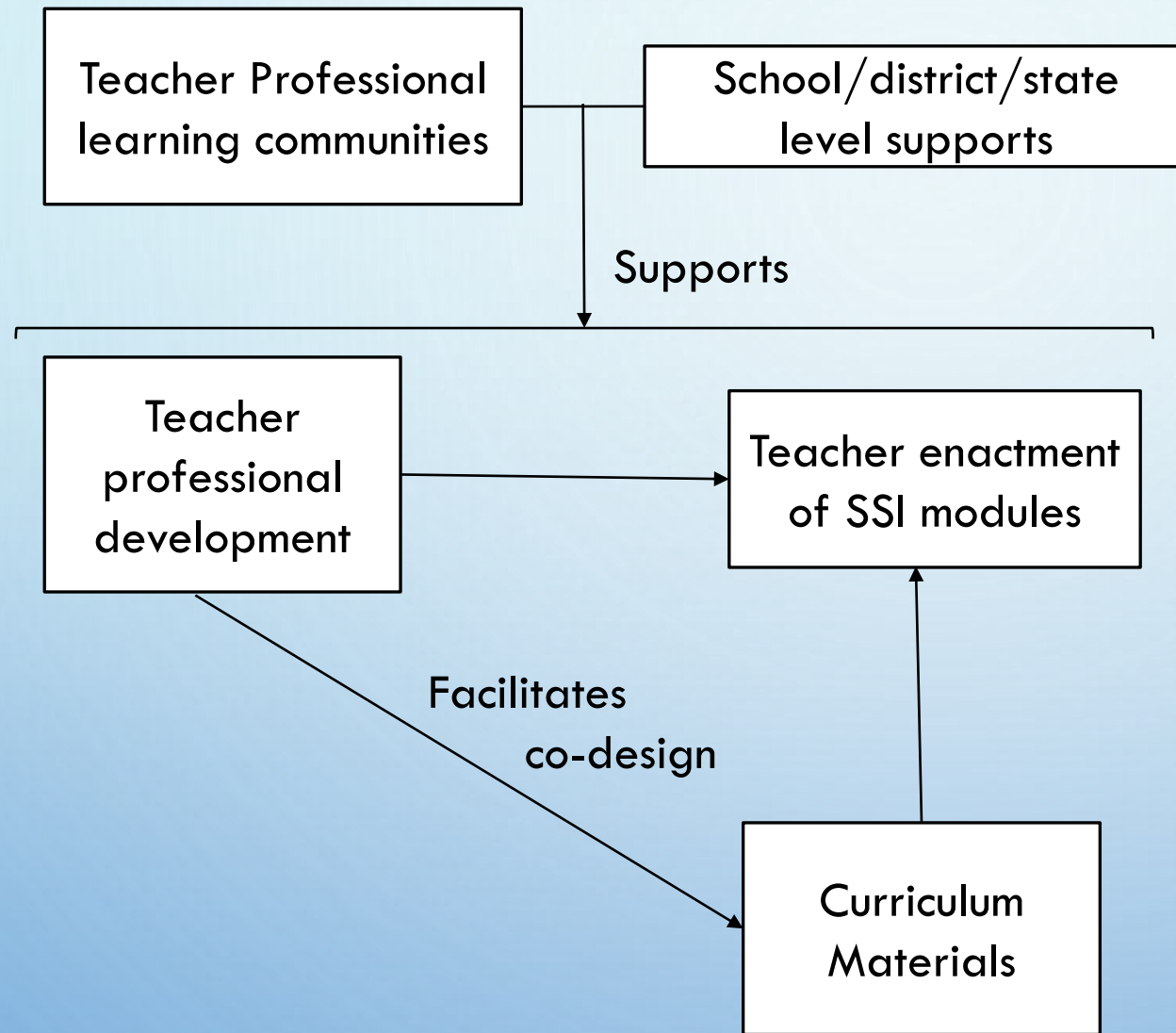
FRAMEWORK FOR TEACHING

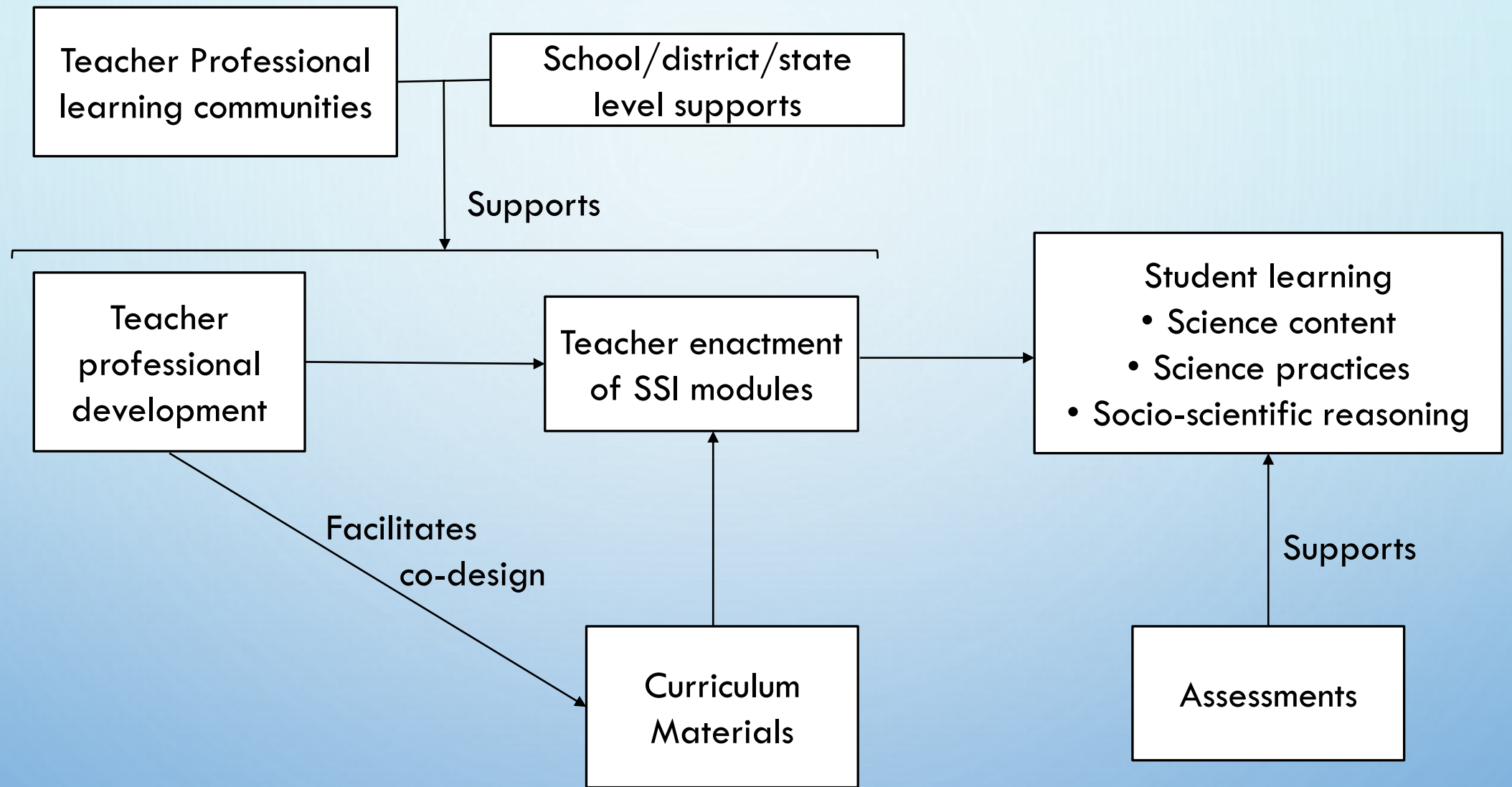
- Modules as a useful unit of instruction











AFFORDANCES OF ISSUES-BASED TEACHING: INTERDISCIPLINARITY: EXAMPLE 1



- "Contemporary Issues"
 - High School course
 - Team taught by history and science teachers
- Key outcomes
 - Communicating compelling arguments
 - Arguing with evidence (scientific, historic)
 - Media literacy

AFFORDANCES OF ISSUES-BASED TEACHING: INTERDISCIPLINARITY: EXAMPLE 2

- MONARCH unit
 - Elementary school module
 - Co-designed by 3rd grade PLC
- Areas of integration
 - Science – ecosystem dynamics
 - Writing – persuasive letters
 - Mathematics – graphing
 - Reading



AREAS FOR FURTHER EXPLORATION

- Core teaching practices
- Assessment strategies
- New models for teacher professional learning
- Dissemination of teacher-generated curricula
- Meeting interdisciplinary learning goals



THANK YOU

- Troy Sadler
- tsadler@unc.edu
- <http://ri2.missouri.edu>

