

Introduction to Theories and Methods in ITLS Part 2
Spring 2025
Tuesdays 1:30 - 3:30 pm
EDUC 280

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Office Hours	By appointment

Land Acknowledgement

We acknowledge that USU and all in-state USU Institutions reside on the original territory of the eight federally recognized Tribes of Utah. Tribes that have been living, working, and residing on this land from time immemorial. These Tribes are the: Confederated Tribes of the Goshute Indians, Navajo Nation, Northern Ute Tribe, Northwestern Band of Shoshone, Paiute Indian Tribe of Utah, San Juan Southern Paiute, Skull Valley Band of Goshute, and White Mesa Band of the Ute Mountain Ute. We acknowledge the painful history of genocide and forced removal from this land, and we honor and respect the Indigenous peoples still connected to the land on which we gather.

-USU Inclusion Center

Course Description

Instructional Technologists and Learning Scientists are centrally concerned with how to *design for* and support *learning*. In order to understand how to design for and support learning, they conduct many different kinds of research. This course provides a broad overview of major research methods that attempt to uncover questions related to learning and the design of learning experiences and environments.

Course Objectives

- Students will be able to *describe* and *distinguish* different prominent research methods and the key characteristics of each method.
- Students will be able to *compare* and *contrast* key characteristics of different research methods, including different quantitative and qualitative methods.
- Students will be able to *critique* a research plan for each of the different methods.
- Students will be able to *design* a detailed research proposal for a project of personal relevance, using one method.

Course Resources

All course readings will be provided as electronic resources linked in the [course box folder](#).

Class Format

This is a seminar course focused on reading and analyzing texts, which involves in-class discussions, workshops, and presentations. In the ITLS department, we view our classroom as a

safe space for all students to engage in thoughtful discussion and inquiry. On the first day of class we will work together to create classroom norms and expectations together.

Assignments

In order to engage in class discussions, please complete all assignments prior to the class meeting.

1. **Readings:** Each week there are several required readings, including chapters from the textbook: *Educational Research*, and journal articles. All readings can be accessed in PDF format in the [course box folder](#). *Note: Readings are subject to change at the instructor's discretion. You will be notified in advance of any changes.*
 - a. **Textbook chapters.** Please read the assigned chapters and come to class with questions for the review portion of the class (first 30 minutes).
 - b. **Research Exemplar Papers.** Please read the exemplar paper and come to class prepared to discuss the paper with your classmates. Please refer to the [template](#) to prepare your notes. Please submit your notes via Canvas by 11:59pm the Monday before we meet.
 - c. **Analytic Strategy Jigsaws.** Please read your assigned paper and work with your collaborator to prepare a ~20-minute presentation (+ Q&A), summarizing the analytic approach outlined in the paper. Please refer to the [template](#) to prepare. Please add your slides to the [class deck](#).
2. **Project Plan Presentation:** For weeks focused on particular research methods, one student will put together and present a research plan, which the group will help them workshop. To guide your process and facilitate proposal workshops, please refer to the linked [research plan presentation](#) template. Completed research plans and corresponding slides are due by 1:30 PM the day that you are presenting. Please add slides summarizing your research plan to the [class deck](#). This will make it easy to share proposals with the group during the workshop segment of class.
3. **Facilitating Class:** Each student will be responsible for leading the class discussion for one class session. Students will [sign up](#) to facilitate a particular day during the first week of class.
4. **Project Proposal (Final Assignment due April 22, 2025 at 1:30pm):** Each student will write their own project proposal draft. The proposal should follow the [research proposal template](#) and outline a project of personal importance.
5. **Class Discussion:** Since this is a seminar style course, you should attend every class in person and participate in the discussions. If you are feeling unwell, please join the class via the following Zoom link:

Course Schedule

Date	Week	Theme	Topic	Readings ¹
1.07	1	Introduction	Course Outline	N/A
1.14	2	Quantitative Research	Quantitative Research	Primary: <ol style="list-style-type: none"> Creswell Ch.5: Collecting Quantitative Data Creswell Ch.6: Analyzing and Interpreting Quantitative Data
1.21	3		Experimental Research	Primary: <ol style="list-style-type: none"> Creswell Ch.10: Experimental Designs Exemplar: <ol style="list-style-type: none"> Schwartz & Martin (2004)
1.28	4		Correlational Research	Primary: <ol style="list-style-type: none"> Creswell Ch.11: Correlational Designs Exemplar: <ol style="list-style-type: none"> Sinha (2022)
2.04	5		Survey Research	Primary: <ol style="list-style-type: none"> Creswell Ch.12: Survey Designs Exemplar: <ol style="list-style-type: none"> Morales et al. (2024)
2.11	6		Quantitative Analytic Strategies	Please choose one of the following to present to the group (In pairs): <ol style="list-style-type: none"> Machine Learning: Kubsch et al. (2022) Epistemic Network Analysis: Shaffer et al. (2009) Learning Analytics: Joksimovic et al. (2019) Multi-Modal Data Analysis: Blikstein & Worsley (2016) Text Mining: Sherin (2013)
¹ Please note that these readings are subject to change. We will notify you of any changes we make.				

2.18	7	Qualitative Research	Qualitative Research	Primary: <ol style="list-style-type: none"> 1. Creswell Ch.7: Collecting Qualitative Data 2. Creswell Ch.8: Analyzing and Interpreting Qualitative Data
2.25	8		Grounded Theory Research	Primary: <ol style="list-style-type: none"> 1. Creswell Ch.13: Grounded Theory Designs Exemplar: <ol style="list-style-type: none"> 1. Famaye et al. (2024)
3.04	9		Ethnographic Research	Primary: <ol style="list-style-type: none"> 1. Creswell Ch.14: Ethnographic Designs Exemplar: <ol style="list-style-type: none"> 1. Chandrasekharan & Nersessian (2015)
3.11	Spring Break			
3.18	10		Narrative Research	Primary: <ol style="list-style-type: none"> 1. Creswell Ch.15: Narrative Research Designs Exemplar: <ol style="list-style-type: none"> 1. Fantilli & McDougall (2009)
3.25	11		Qualitative Analytic Strategies	Please choose one of the following to present to the group (in pairs): <ol style="list-style-type: none"> 1. Video Analysis: Derry et al. (2010) 2. Interaction Analysis: Jordan & Henderson (1995) 3. Discourse Analysis: Gee (2014) (pg.116-126) 4. Knowledge Analysis: diSessa, Sherin & Levin (2016) 5. Ambulatory Sequences:

				Marin (2020)
4.01	12	Mixed Methods	Mixed Methods Research	Primary: 1. Creswell Ch.16: Mixed Methods Designs Exemplar: 1. Davis et al. (2015)
4.08	13		Design-Based Research	Primary: 1. Design-Based Research Collective (2003) Exemplar: 1. Lambert et al. (2022)
4.15	14		Final Project Workshop	N/A
4.22	15		Final Project Presentations	N/A

Attendance Policy

Regular, **on-time** attendance and thoughtful participation during class discussions are essential not only to your individual learning but also to the success of the course and our community. We all share responsibility for the learning and teaching in this course. Because you will not be able to participate in the class community if you are not present, excessive absences will result in the loss of participation points, except in cases of religious observance or unexpected circumstances (e.g., family emergency, prolonged illness). If you know that you will miss a class session, please notify us PRIOR to your absence.

Academic Freedom and Professional Responsibilities

Academic freedom is the right to teach, study, discuss, investigate, discover, create, and publish freely. Academic freedom protects the rights of faculty members in teaching and of students in learning. Freedom in research is fundamental to the advancement of truth. Faculty members are entitled to full freedom in teaching, research, and creative activities, subject to the limitations imposed by professional responsibility. USU Policy 403 further defines academic freedom and professional responsibilities.

Academic Integrity - "The Honor System"

The University expects that students and faculty alike maintain the highest standards of academic honesty. The Code of Policies and Procedures for Students at Utah State University (Student Conduct) addresses academic integrity and honesty and notes the following:

Academic Integrity: Students have a responsibility to promote academic integrity at the University by not participating in or facilitating others' participation in any act of academic dishonesty and by reporting all violations or suspected violations of the Academic Integrity Standard to their instructors.

The Honor Pledge: To enhance the learning environment at Utah State University and to develop student academic integrity, each student agrees to the following Honor Pledge: "I pledge, on my honor, to conduct myself with the foremost level of academic integrity". Violations of the Academic Integrity Standard (academic violations) include, but are not limited to cheating, falsification, and plagiarism.

Plagiarism

Plagiarism includes knowingly "representing by paraphrase or direct quotation, the published or unpublished work of another person (or AI) as one's own in any academic exercise or activity without full and clear acknowledgment. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials." The penalties for plagiarism are severe. They include warning or reprimand, grade adjustment, probation, suspension, expulsion, withholding of transcripts, and denial or revocation of degrees.

Grievance Process

Students who feel they have been unfairly treated [in matters other than discipline, admission, residency, employment, traffic, and parking - which are addressed by procedures separate and independent from the Student Code] may file a grievance through the channels and procedures described in the Student Code: Article VII Grievances.

Discrimination and Sexual Misconduct

USU strives to provide an environment for students and employees that is free from discrimination and sexual misconduct. If you experience sexual misconduct or discrimination at any point during the semester inside or outside of class, you are encouraged to contact the USU Title IX Coordinator via Old Main room 161 in Logan, 435-797-1266, titleix@usu.edu, or at equity.usu.edu/report. You can learn more about the USU resources available for individuals who have experienced sexual misconduct at sexualrespect.usu.edu. Resources for individuals who have experienced discrimination are listed at equity.usu.edu.

Required Reporting of Sexual Misconduct

The instructor is designated by USU as a "reporting employee." This means that if you share information about sexual misconduct (sexual harassment, sexual assault, relationship violence, or sex-based stalking) with the instructor, they will report that information to the USU Title IX Coordinator. The instructor is also required to tell you about designated confidential resources, supportive measures, and how you can file a report with the USU Title IX Coordinator.

Students with Disabilities

USU welcomes students with disabilities. If you have, or suspect you may have, a physical, mental health, or learning disability that may require accommodations in this course, please contact the Disability Resource Center (DRC) as early in the semester as possible (University Inn

101, 435-797-2444, drc@usu.edu). All disability related accommodations must be approved by the DRC. Once approved, the DRC will coordinate with faculty to provide accommodations.

Withdrawal Policy, "I" Grade Policy and Dropping Courses

If a student does not attend a class during the first week of the term or by the second class meeting, whichever comes first, the instructor may submit a request to have the student dropped from the course. (This does not remove responsibility from the student to drop courses which they do not plan to attend.) Students who are dropped from courses will be notified by the Registrar's Office through their preferred email account.

Students may drop courses without notation on the permanent record through the first 20 percent of the class. If a student drops a course following the first 20 percent of the class, a W will be permanently affixed to the student's record (check General Catalog for exact dates).

Students with extenuating circumstances should refer to the policy regarding Complete Withdrawal from the University and the Incomplete (I) Grade policy in the General Catalog.

Mental Health

Mental health is critically important for the success of USU students. As a student, you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce your ability to participate in daily activities. Utah State University provides free services for students to assist them with addressing these and other concerns. You can learn more about the broad range of confidential mental health services available on campus at Counseling and Psychological Services (CAPS).

Students are also encouraged to download the "SafeUT App" to their smartphones. The SafeUT application is a 24/7 statewide crisis text and tip service that provides real-time crisis intervention to students through texting and a confidential tip program that can help anyone with emotional crises, bullying, relationship problems, mental health, or suicide related issues.

Pregnancy-Related Accommodations

The University prohibits discrimination based on sex, as mandated by Title IX of the Education Amendments of 1972. Consistent with University policy and applicable law, the University will not exclude a student from participating in any part of an educational program based on the student's pregnancy or pregnancy related conditions. In meeting these obligations, the University will provide reasonable accommodations to USU students, faculty, and staff for pregnancy and pregnancy related conditions. Please see <https://www.usu.edu/equity/pregnancy-accommodations> for more information.

Course Bibliography

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