*Chancellors Learning Scholars 2019 SoTL Workshop*

Worksheet #1: Developing a Research Question

**Developing a Meaningful, Feasible, and Focused Research Question**

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| **A Good Research Question . . .** | | | |
| Is meaningful and significant to you. | Is possible to research with the time, resources, and students you work with. | Is deliberate, narrow and focused, so that your project will adequately answer the research question. | Will need to be refined. |

**Define the problem and the situation and consider possible interventions:**

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| **What is the problem?** |  |
| **What population?**  *(ex. first-year students, upper-level math, community college etc.)* |  |
| **Sample?**  (ex. One section, multiple sections, cross-disciplinary, one class period, whole semester etc.) |  |
| **Context?**  *(ex. Institution type, type of course, student demographic)* |  |
| **Intervention?** \*  *(ex. What are you going to do? Describe, compare try something new, etc.)* |  |

\* *NOTE: some people prefer to draft a working research question and* ***then*** *consider possible interventions, so this step is optional)*

**Now try drafting a working research question. Get feedback on your drafts!**

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| First Attempt |  |
| Second Attempt |  |
| Third Attempt |  |

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Worksheet #2: Sample Planning Worksheet (blank *version)*

**Identifying a Research Question and Planning a SoTL Project**

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| **Purpose** |  | | |
| Institutional Context – what factors do you want to examine?  What issues and challenges are related to your context? |  | | |
| Literature Review Sources – Focus on how your context differs from what has been published in the literature. |  | | |
| Working Research Question(s):   * Be specific * Consider Timeline * Be ready to refine |  | |  |
| On Campus Resources   * IRB * Collaborators * Library (SOTL Library, USG) * Technology * Data Analysis |  | | |
| Data Collection Methods - Quantitative, Qualitative, Mixed Methods. | | | |
| Evidence | | | |
| Data Analysis | | | |
| Sample | | Scalability | |
| Timeline |  | | |
| Plan for Pilot Study – How will you conduct a pilot study? |  | | |
| Possible Outlets for Publication or Presentation |  | | |

**Notes:**

**Parking Lot:**

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Worksheet #3: Sample Planning Worksheet (annotated version)

**Identifying a Research Question and Planning a SoTL Project**

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| **Purpose** | Think broadly about an area of concern or a pinch-point for your teaching/course development/evaluation. What areas would you like to figure out more about or resolve? | | | |
| Institutional Context – what factors do you want to examine?  What issues and challenges are related to your context? | **Institution type** (2-year, 4-year, small institution, large institution, liberal arts, tech, undergraduate, graduate, HBCU, HSI, non-traditional, etc.)  **Population** (Undergraduate, graduate, URM, at-risk, first-generation, honors, majors, underprepared students, etc.)  **Disciplinary or cross-disciplinary** (English, STEM, supplemental instruction, tutoring, QEP, General Education, etc.) | | | |
| Literature Review Sources – Focus on how your context differs from what has been published in the literature. | What are the bodies of research that would inform this study?  Are there specific databases that would include such research?  Who are the leaders in the field?  What are the seminal pieces relevant to this research? Conferences?  Are there theoretical frameworks that would help develop this research? | | | |
| Working Research Question(s):   * Be specific * Consider Timeline * Be ready to refine | Is meaningful and significant to you. | Is possible to research with the time, resources, and students you work with. | | Is deliberate, narrow and focused, so that your project will adequately answer the research question. |
| On Campus Resources   * IRB * Collaborators * Library * Technology * Data Analysis * Grants | * Find out process for gaining IRB approval. * Visit with colleagues who can guide you on research design, help conduct data collection, data analysis, proofreading, etc. * Identify the discipline specific librarian. * Identify available or easily purchasable technology * Contact your local CTL!!! * Visit with your institution’s research office, if available. * Work with grants office/CTL to find funds to support your study | | | |
| Data Collection Methods | Qualitative  Case Study  Observation Interviews  Focus Groups  Document Analysis | | Quantitative  Correlational  Causal Comparative  Experimental  Quasi-experimental  Experimental | |
| Evidence – Qualitative | Video/audio recordings  Artifacts/relics (photographs,  Think-aloud protocol  Mind maps  Observation journal  Interviews/focus groups  Documents/student work | | Survey/Questionnaire   * Nominal (categories0 * Ordinal (ordered – age range) * Interval (ex. Scale of 1 to 10)   Student grades/scores  Rubrics | |
| Data Analysis | Constant Comparative  Thematic Analysis  Ethnography  Grounded Theory  Content Analysis | | Descriptive Statistics  ANOVA  Multiple Regression  Q-sort | |
| Sample   * Purposeful sample * Entire class or multiple classes * Single case study or select group * Time frame (class period, activity, module, course, course sequence, semester, program) | | | Scalability   * Are there ways to increase the reach with this study? * Mentor/collaborator options? * Increase within discipline or across discipline? * Work with other departments or institutions? | |
| Timeline | * What amount of time do you think it will take to conduct this research? * Be sure to take into consideration the amount of time to gain Human Subjects approval, recruit participants, plan the intervention, collect, clean up/transcribe data, and analyze data. | | | |
| Plan for Pilot Study – How will you conduct a pilot study? | * Is there a way for you to conduct the study on a much smaller scale? Use only a few students? * Ask colleagues to try the questions/approach out? * Analyze only a select group of documents? | | | |
| Possible Outlets for Publication or Presentation – Significant Outlets | * Peer-Reviewed Disciplinary conferences/journals/blogs/newsletters * SOTL Conferences * Faculty Development/Educational Development Journals * Others | | | |

**Notes:**

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Worksheet #4: Sample Planning Worksheet (**completed example** version)

**Identifying a Research Question and Planning a SoTL Project**

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| **Purpose** | **To explore how flipped classrooms impact student perceptions of their effectiveness.** | | |
| Institutional Context – what factors do you want to examine?  What issues and challenges are related to your context? | Underrepresented, underprepared, first-generation.  Two-year college  Students unaware of how to take control of their own learning. | | |
| Literature Review Sources – Focus on how your context differs from what has been published in the literature. | URM  Self-directed learning  Perceptions of effectiveness | | |
| Working Research Question(s):   * Be specific * Consider Timeline * Be ready to refine | Given three flipped classroom sessions, how do URM students characterize their effectiveness in their learning? | | What changes in their ability to learn on their own do they attribute to the flipped classroom activities? |
| On Campus Resources   * IRB * Collaborators * Library (SOTL Library, USG) * Technology * Data Analysis | * Education librarian * Ethnographist * IRB office * Recorder * Transcriptionist * Scheduler * Donations for recruitment materials | | |
| Data Collection Methods - Quantitative, Qualitative, Mixed Methods.   * Interviews * Focus groups * Journaling | | | |
| Evidence  Transcripts of interviews, journals, transcription of focus groups. | | | |
| Data Analysis  Constant Comparative Analysis  Thematic Analysis | | | |
| Sample  URM Biology 101 students at a local, two-year college taking face-to-face classes. | | Scalability  Apply approach to STEM-H classes and train numerous graduate students on interviewing and data analysis to ensure interrater reliability. | |
| Timeline | Conduct literature review and Create study proposal – One semester  Write up plan for Human Subjects approval – One Week  Submit for Human Subjects approval – two to four weeks (or more)  Conduct three flipped classrooms for BIO 101 course (including having students journaling throughout the process) – two weeks  Recruit for focus groups – two weeks  Transcribe and analyze results – two weeks  Recruit and conduct interviews – two weeks  Transcribe and analyze interview data – three weeks  Write up results and prepare for publication – one month | | |
| Plan for Pilot Study – How will you conduct a pilot study? | Interview three students after a series of flipped classes the semester prior to the beginning of the project. | | |
| Possible Outlets for Publication or Presentation | State level conference, regional journal, national conference in discipline. | | |

**Notes:**

**Parking Lot:**