# **Threshold Concept, Case Study & Reflection Activity**

## 

## **Part 1: Threshold Concept**

Threshold Concept Selected: “Research is not just data collection.”

### **What Students Know**

- Research involves gathering data from various sources such as surveys, interviews, and experiments.  
 - Data must be collected systematically and ethically.  
 - Research can follow qualitative, quantitative, or mixed methods approaches.

### **What Students Don’t Know**

- Research is about generating new knowledge and insights, not simply compiling existing facts.  
 - Data collection is only one stage of the research cycle.  
 - Research design is critical for ensuring validity and reliability.  
 - Research questions shape every methodological choice and stage of the process.

### **Principles**

1. Purpose over Process – The aim is to answer a research question or test a hypothesis, not just to gather data.  
 2. Integration – Data must be analysed, interpreted, and connected to theory and previous studies.  
 3. Validity & Reliability – Credibility comes from methodological rigour, not data volume.  
 4. Ethics – Integrity in research protects participants and maintains trustworthiness.  
 5. Iterative Nature – Research is a cyclical process; revisiting earlier stages is often necessary.

## 

## 

## **Part 2: Case Study & Framework Application**

### **Case Study Scenario**

Title: The Curious Case of the “Copy-Paste” Researcher  
  
 Dr. Meera assigns her postgraduate students a research project on “The impact of social media usage on study habits.” Two groups submit their work:  
 - Group A: Collected 200 survey responses but only presented basic averages, with no further analysis or interpretation.  
 - Group B: Collected 50 responses, applied statistical tests, linked results to theory and literature, and discussed implications for students and educators.  
  
 Dr. Meera uses this example to show that research is more than collecting large amounts of data — it’s about making meaning from it.

### **Application of Bloom’s Taxonomy**

| **Bloom Level** | **Application to Case** |
| --- | --- |
| **Remember** | Define “research” and “data collection.” |
| **Understand** | Explain why Group B’s project is more complete despite fewer responses. |
| **Apply** | Design a short plan to improve Group A’s project. |
| **Analyze** | Compare strengths and weaknesses of Group A and Group B’s approaches. |
| **Evaluate** | Judge which group better met the purpose of research and justify your reasoning. |
| **Create** | Propose a revised research design incorporating the best aspects of both groups. |

### 

### **Application of Fink’s Taxonomy of Significant Learning**

| **Category** | **Application to Case** |
| --- | --- |
| **Foundational Knowledge** | Understanding what “research” truly means beyond data collection. |
| **Application** | Using correct data analysis methods to interpret findings. |
| **Integration** | Connecting results with literature, theory, and real-life implications. |
| **Human Dimension** | Recognising the researcher’s responsibility in producing meaningful work. |
| **Caring** | Developing appreciation for rigour and quality in research. |
| **Learning How to Learn** | Identifying one’s own research skill gaps and planning improvements. |

### 

### **Application of SOLO Taxonomy**

| **SOLO Level** | **Application to Case** |
| --- | --- |
| **Prestructural** | Only knows that data is “something to collect.” |
| **Unistructural** | Identifies one step — data collection — as the main research activity. |
| **Multistructural** | Lists multiple stages but sees them as separate tasks. |
| **Relational** | Understands how all stages connect — research questions guide collection, which guides analysis. |
| **Extended Abstract** | Generalises the principle that research in any field is about creating meaning, not just gathering facts. |

### **Comparison Table – Bloom vs. Fink vs. SOLO**

| **Aspect** | **Bloom’s Taxonomy** | **Fink’s Taxonomy** | **SOLO Taxonomy** |
| --- | --- | --- | --- |
| **Focus** | Cognitive skill progression from recall to creation | Holistic learning including affective and metacognitive aspects | Depth of understanding and knowledge integration |
| **Structure** | Six hierarchical levels | Six interconnected categories | Five levels of increasing complexity |
| **Strengths** | Clear skill progression for assessment design | Promotes connection between knowledge, values, and skills | Tracks movement from surface to deep learning |
| **Limitations** | Primarily cognitive, limited affective focus | No strict hierarchy, may be harder to assess progression | Does not focus on skill types explicitly |
| **Application in Case** | Guides stepwise skill development | Encourages motivation, values, and self-awareness | Shows qualitative shift in understanding the concept |

## 

## **Part 3: Reflection Questions & Learning Outcome Mapping**

### **Reflection Questions**

1. In your last research task, at what point did you move from collecting data to interpreting it?  
 2. How did your research question influence your data collection and analysis choices?  
 3. Which stage of the research process did you undervalue, and why?  
 4. How can you ensure your next project integrates theory, data, and practical implications?  
 5. Which group in the case study (A or B) reflects your current research practice, and what changes will you make?

### **Learning Outcomes Mapping**

| **Reflection Question** | **Learning Outcome** |
| --- | --- |
| **Q1** | LO1: Demonstrate awareness of research as a process of meaning-making beyond data gathering. |
| **Q2** | LO2: Analyse the relationship between research questions, methodology, and outcomes. |
| **Q3** | LO3: Evaluate personal strengths and weaknesses in the research process. |
| **Q4** | LO4: Apply strategies to integrate theory, literature, and findings in research work. |
| **Q5** | LO5: Reflect critically on research practice to identify and implement improvements. |

