

Module Worksheet: Writing a Conceptual Framework (IPO Format)

Subject: Practical Research 1

Grade Level: 12 – ICT B

Lesson Duration: 1 Hour

Lesson Objectives

After going through this module, you will be able to:

1. Explain what a conceptual framework is in simple terms.
2. Identify the **Input, Process, and Output (IPO)** of a research topic.
3. Draw a simple IPO diagram for your own research study.

✨ Let's Start! (Motivation)

👉 Imagine you're **building a computer**. You don't just buy random parts, right?

- **Input:** The parts (CPU, RAM, GPU).
- **Process:** How you assemble them.
- **Output:** The finished PC that runs smoothly.

Research works the same way! A **Conceptual Framework** is like your **PC blueprint**. It shows:

- **What you use (Input)**
- **How you do it (Process)**
- **What you get (Output)**

📖 Discussion

1. What is a Conceptual Framework?

- It is the **research map** of your study.
- It shows the **flow of your research**: from input, to process, to output.
- It makes your study **clear and easy to understand**.

👉 Think of it like **Google Maps for your research** — it guides where your study will go.

2. IPO Format Explained

- **Input (I):** What you put in your study.
 - Includes **independent variables** (the causes or factors).
 - Example: Number of hours playing Mobile Legends 🎮
- **Process (P):** What you do in your study (your research methods).
 - Includes **surveys, questionnaires, interviews, experiments, or observations**.
 - Example: Surveying students about how long they play and how it affects their studies 📊

- **Output (O):** What you get in the end.
 - Includes **dependent variables** (the effects or results).
 - Example: Students' study habits (good or poor) 

3. Example:

Research Title: *"The Effect of Mobile Legends on the Study Habits of Grade 12 ICT Students."*

- **Input:** Hours spent playing Mobile Legends 
- **Process:** Use of survey questionnaire to measure playing time and study habits 
- **Output:** Study habits of Grade 12 ICT students (positive or negative) 

4. IPO Diagram Example

 **Input** →  **Process** →  **Output**

Input	Process	Output
Hours spent playing Mobile Legends 	Survey questionnaire on gaming time and study habits 	Description of study habits of Grade 12 ICT students 

Guided Practice

Activity 1: Identify IPO

Read the sample research titles below. Identify the **Input, Process, and Output**.

1. *"The Effect of Watching TikTok on the Sleeping Habits of Grade 12 Students."*
 - Input: _____
 - Process: _____
 - Output: _____
2. *"The Relationship between Facebook Usage and the Academic Performance of ICT Strand Students."*
 - Input: _____
 - Process: _____
 - Output: _____

Activity 2: Draw Your Own IPO

Instructions:

1. Write your research title below:

My Research Title: _____

2. Identify your:

- Input: _____
- Process: _____
- Output: _____

3. Draw your IPO diagram here:



✓ Wrap-Up (Generalization)

- A **Conceptual Framework (IPO format)** is your **map** in research.
- It shows **what you will study (Input)**, **how you will study it (Process)**, and **what results you expect (Output)**.
- Without a map, you'll get lost. With IPO, your research stays on track.

🎯 Quick Check (Exit Ticket)

On a ¼ sheet of paper:

1. Write your research title.
2. Identify your input, process, and output in one sentence.