

## Module Worksheet: Writing a Conceptual Framework (IPO Format)

**Subject:** Practical Research 1

**Grade Level:** 12 – ICT B

**Lesson Duration:** 1 Hour

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### 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.

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### ⭐ 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)**

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### ❑ 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.

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#### 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) 

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### 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) 

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### 4. IPO Diagram Example

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

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

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 **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:** \_\_\_\_\_

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## 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:



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### 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.

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### Quick Check (Exit Ticket)

On a  $\frac{1}{4}$  sheet of paper:

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