**Learning Task**: Design Guidelines and Template

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## 0 Introduction

When designing complex learning actions the first step is to determine and outline the learning tasks that will be the backbone on the learning action. The allow us to connect with the analysis phase (Task Analysis) and will work as the engine of all the instructional design process.

## 1. Instructions

|  |  |  |  |
| --- | --- | --- | --- |
| **Id** | **Phase** | **Who** | **Recommendation** |
| **1** | Take **real-life tasks** as a starting point. Include the real-life tasks in the template. | **Technical referent** | Use the task analysis document in which the priorization has been made. Consider first high priority tasks. |
| **2** | Describe **task support elements** in the template. This are the “raw” elements of the task. | **Technical referent** | When designing learning tasks distinguish between **Task Support** (Given states (problem situations) Goal States (product) and acceptable solution (how to) ) and **Problem solving guidance (**Processes needed to solve the problem. See glossary below for more details. |
| **3** | Determine task type. | **Instructional Designer** | Consider the level of fidelity. Start with **low fidelity** tasks environments and move towards **higher fidelity** environments. (Low: Case problems in a paper – Medium: Computer simulations, role playing – High: Real partients in a nutrition crisis)  Determine Problem Solving Guidance |
| **4** | Determine and describe guidance technique. | **Instructional Designer** | Although this is done by the ID, the technical referent should collaborate in this task. |
| **4** | Sequence Learning tasks | **Instructional Designer** | When sequencing the learning tasks, consider the scaffolding of these tasks. Start with learning tasks with a high level of support and guidance and end with tasks without support and guidance. |

## 2. Glossary

All the elements that need to be included in the learning task description are explained below.

**Fidelity:**

**Task Support**:

**Given State**: Situation the learner confronts. This is the starting point for the learner. This could be formulated as a problem. **For example**: *The mission coordination team (MCT) has identified some gaps in the context analysis document.*

**Goal State**: This represents the final “product” or state that the learner reaches after solving the problem. **For example**: *A context analysis document that acutely represents all the elements of a given context.*

**Acceptable Solution**: A series of actions or “operators” that enable the transformation from the given state to the goal state. This solution explains the steps or processes that were taken to solve the problem. In other words, this means to describe how the problem stated is solved. **For example**: “*In order to update the context analysis document, I have followed this steps: 1 – x, 2 – y, etc.”* There may be many ways to solve the same problem.

**Types of Tasks:** Different types of learning tasks provide different amounts of support by providing different amounts of information on the **given state**, the **goal state** and/or **the solution**.

**Case Study**: Learners are presented with descriptions of actual or hypothetical problem situations (given state). They also provide solutions and the goal states or products. The learners will have to evaluate or study the solutions provided. This is a highly supported type of task indicated for early stages in the learning process.

**Reverse Task**: In this kind of task, the **given state** or **problem situation** is missing and the learner has to predict it. They will have the goal state and the solution. Learners will have to relate solution steps to given situations or problems. **For example**: *Students have a context analysis document and the solution (how this document has been done) Learners will have to deduce what is the problem or problems that have originated these results.*

**Imitation Task**: This kind go task presents a conventional task (see below) with a case study of an analogous task. **For example**: *Learners have a worked out example of how to develop a case study with a problem situation similar to the one they will have to develop.*

**Non Specific Goal Task**: This kind of activities stimulate learner to explore relationships between solutions and the goals that can be reached by those solutions. **For example:** *There is some security problems related to context analysis. What will you propose as a solution? How will you apply this solution?*

**Completion Task**: This kind of tasks provides the problem situation (given state), a clear goal and a partial solution. The learners must complete the partial solution by determining and adding the missing steps. **For example**: *Considering the context analysis example: Problem: There is some security problems related to context analysis. Goal: A context analysis document adapted to the new situation. Solution: An incomplete process describing how the problem was solved. The learners have to work out those solutions.*

**Conventional Task**: This kind of task gives little or no support to learners. They receive a problem situation and a high specific goal. They have to produce the solution (how to) and the goal product (what). In other task types either the goal or the solutions are given to the students. In this case, they have to produce all.

**Problem solving guidance**: This part deals with the process that is needed to solve the problem. Problem solving guidance may be provided in the form of modeling examples, process worksheets and performance constraints.

**Modeling Examples:** Maximum guidance is provided by “Modeling examples”. These examples pay special attention to the processes needed to reach an acceptable solution. Example: *Taking into account the context analysis example, a modeling example could consist of a document in which the process to update an actual context analysis is described and commented by an expert. This also could be in the form of video or audio. This could also be done by the teacher thinking aloud while explaining the example.*

**Process Worksheets:** This technique provides the learner with the steps that they need to take to solve the problem and guides them through the problem solving process. This is a systematic approach to problem solving for the learning task. This worksheet could also include rules-of-thumb or guiding questions. Taking the context analysis example as an example:

|  |  |  |
| --- | --- | --- |
| Id | Phase in problem solving process | Rules of Thumb - Guiding questions |
| 1 | Order all the documents that are related to context analysis | How are you going to organize these documents?  Is there a filing system in the mission? |
| 2 | Review the documents | Which are the most outstaing issues of the document being analyzed? |
| 3 | Etc. |  |

**Performance Constraints:** This technique is similar to process worksheets although more directive. It consists in making particular actions that are not relevant in a particular phase of the problem solving process unavailable to the learners in that phase. For example: Students will not be able to “Review the documents” until they “Have ordered all the documents that are related to context analysis”. This technique is particularly useful in early phases in the learning process.

## 3. Learning Task Template

Just fill in the information related to your role. Consider the following color code.

|  |
| --- |
| **To be filled by technical referent** |
| **To be filled by instructional designer** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Training/Learning Program** |  |  |  |  |
| **General Information** | **Learning Task Title:** | **Date:** |  |  |
|  | **Real life task (s):** | **Author (s):** |  |  |
| **Learning Task Support** | **Given State or problema situation** | *[Include description]* |  |  |
|  | **Goal or resultant product:** | *[Include description]* |  |  |
|  | **Acceptable solution:** | *[Include description]* |  |  |
|  | **Type of learning task** (Ordered from high task support to low task support) | **Case Study** |  |  |
|  |  | **Reverse task** |  |  |
|  |  | **Imitation task** |  |  |
|  |  | **Non-specific goal Task** |  |  |
|  |  | **Completion Task** |  |  |
|  |  | **Conventional Task** |  |  |
|  | **Notes:** |  |  |  |
| **Learning Task Guidance** | **Modelling Examples** | **x** | *[Include description]* |  |
|  | **Process worsheet** |  | *[Include description]* |  |
|  | **Performance constraints** |  | *[Include description]* |  |
| **Instructions** | *[Include instructions to students]* |  |  |  |
| **Dynamics** | *[Include instructions to teachers]* |  |  |  |
| **Evaluation** | *[Describe how learners performance will be evaluated]* |  |  |  |