

# Solve a problem critical thinking

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Creativity involves the production of products or ideas that feature uniqueness, imaginatively and usefulness when in use, the process is unrestricted to any subject matter or context (Burke & Tinsley, 1993). The creative process has found applications in the present world in various fields including technology, art, economics, music, education and linguistics, just to mention a few (Dervin, 1990). Creative thinking is a cognitive process where individuals' intelligence and personality are expressed through thought and ideas. The process of creativity is generated where there is a problem to be unriddled. The creative process involves the following stages:

- Preparation

It is also known as the stage of 'first insight'. Here the individual identifies the problem which requires a solution; the problem can be discovered by accident i. e. through your daily routine, or through self-directed efforts. The individual at this level has not yet thought of a solution to the problem but contemplates over the problem and its different dimensions. An individual may rely on research and brainstorming in order to understand the problem and formulate different ideas.

- Incubation

This is where the individual begins to make sense of and categorize information gathered concerning the problem. This is majorly done using the unconscious mind, where the individual is not particularly looking for a solution to the problem, but is internalizing the relevant information to construct an idea that may lead to a possible solution.

- Illumination

Here the individual gets an idea after connecting information sort that could

produce a solution, the idea continuously matures in the individuals mind as more insight is shed concerning the problem.

- Evaluation

At this stage he evaluates if the idea he has is applicable to the problem in order to produce the desired changes. He may require consulting with peers, supervisors, clients or any others with experience to the problem depending on the context. The idea will hence be subject to changes or adjustment depending on new information acquired.

- Implementation

**Here the individual sets out to transform his ideas into a final product to induce the desired outcome.**

My personal challenge was with the fuse contained in multi plugs. Multi plugs are a very convenient way of taking advantage of parallel connections to maximize on the number of possible output from a single source of electricity to power various appliances. Like any other electrical device, multi plugs contain fuses whose main goal is to break the circuit in case of inconsistencies in the level of current supplied from the national grid. This prevents damage to property or the risk of fires in case of a power surge. The most commonly used household device fuse is the normal fast-blow fuse which will break in 0.1 of a seconds if a current twice it's rated current is delivered through it (Wright & Newbery, 2004). Some of the questions the problem aroused included:

- What other protective measure are available despite a fuse?
- Why are fuses on multi plugs notorious for breaking?
- How do fuses work in effect of protection against surges?

Fuses work by introducing a wiring with a low melting point contained in the fuse, this would melt in case of excess power therefore breaking the circuit and protecting other devices down along the circuit from the surge. Fuses are very delicate and fast melting, an advantage to its cause but a limitation considering handling due to the portability of these devices. In addition, most multi plugs available in the market today are made in China or other places where standards of quality are not as important as they should be therefore do not last as long as they should. One of the first parts in the multi plug to spoil would be the fuse which either burnt or broke due to use of either substandard materials or error in the production process. This would force regular purchase of fuses which may prove tricky considering information on electrics are highly specialized with particular terminologies hard to be understood by the common person.

**The fuse issue would be assisted by using one of the following:**

- Installing a UPS or a voltage control device to replace fuses.
- Introduce a fresh stronger wire into the broken fuse that ensures constant flow of current despite the magnitude supplied. Information here would possibly come from electronic engineering lecturers, books and from peers.
- Continuously buy a new fuse when yours breaks although this would require market research in order to buy the best and, may prove to be expensive, therefore information is gathered from electronics suppliers and electronics catalogue.
- Purchase original multi plugs, which even though they are expensive they last far longer, this would also require information from electronics catalogue

and suppliers.

When trying to solve the fuse problem the safest and guaranteed route to take would be to buy original long lasting merchandise, be it in replacement of a blown fuse or the whole multi plug. This option although expensive ensures that your household appliances and devices are protected constantly, and the user's safety is guaranteed. Another practical solution would be to replace the melting wire with another with a high melting point. This can be done by opening the fuse and soldering in a replacement wire inside the fuse capsule.

## **References**

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