CREATIVITY ANALYSIS

CS 8803 - CREATIVITY AND DESIGN COGNITION

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1. ABSTRACT

The project "Creativity Analysis" aims to understand the nature of creativity and its relationship with a person's professional Background. It is a survey project conducted as a part of the course requirement for "Creativity and Design Cognition" in Spring 2010. We try to analyze creativity levels of people/professionals from varied backgrounds. The analysis of the survey results and conclusions drawn actually leads to an educational understanding of the term creativity. This test incorporates Convergent-thinking as opposed to other tests which include divergent-thinking. Though creativity is purely an aspect of personality we have developed assessment methods using which creativity can be measured. It also showcases the fact that an individual's thought behavior and thought process is shaped by his profession and his background. The report explains these points in details and substantiates the claim.

2. INTRODUCTION

Creativity varies with one’s comfort to think creatively. This in turn is influenced by the profession one is associated to. The report analyzes the creativity levels of various individual, the individuals selected are from varied backgrounds / professions. This helps us analyze the creativity levels based on the profession of the person and background that he hails from. Such a survey helps us classify creativity into various levels. It helps us draw a conclusion about the impact of the profession/background on an individual's thought process. The paper talks about this in detail. Section 3 explains the procedure we used in developing the project idea and how we proceeded in achieving our goals. Section 3 talks about the survey and the information that was collected as a part of the survey. Section 4 is all about the responses and the feedback that was collected. In Section 5, we analyze the responses in a way that allows some kind of clustering and grouping. Section 6 concludes the report with the suitable inferences and groupings.
3. PROCEDURE

One’s work environment can make a person interpret things around him in the way he sees them at his job. Through this experiment we attempt to decipher this pattern. A set of colorful images were exposed to a number of surveyors and what followed was an interesting pattern of observation. The idea of the project is to form clusters / groups of belonging to their creativity levels. The idea was given by Prof. Ellen Do, and we carried it forward in the form of this project. Conducting a survey was the most convenient option to collect feedback. Another concern was to decide the base of the survey. We selected 5 pictures / art designs / patterns and queried about how every person interpreted the given design. The responses helped us draw some useful conclusions and inferences. In turn, we could form groups of individuals and rate their creativity levels.

Creative Thinking Strategies consists of the following steps:

- **Preparation**: This involves how knowledgeable we are regarding the field.
- **Incubation**: It is the process of and is essential in the formation of many creative ideas
- **Illumination**: When one is enlightened with the possible Solution.
- **Verification**: This step involves conducting of experiments to verify if the solution is correct.

However Creative Problem Solving consists of many other steps too which are as follows:

- Fact-finding
- Problem-finding
- Idea-finding
- Solution-finding
- Acceptance-finding

Each Step has two phases.
1. Divergent thinking processes
2. Convergent thinking processes

As mentioned before this test incorporates Convergent-thinking as opposed to other tests which include divergent-thinking.
4. **SURVEY**

Creativity levels differ from individual to individual. Often guided by the person's background or profession. Thus Project classifies individuals based on the survey conducted and draws the appropriate conclusion. The base of our survey was the fact that person’s creativity is either influenced by his Creative thinking skills or his expertise. The organization or his profession has a high influence in this expertise. Our survey consisted of the following questions: It mainly aims to translate a person’s professional background to his creativity level. Ironically Analysis isn't inherently creative, since it's the opposite of design. Analysis is intended to tell you what is already rather than what can be done.

The survey helped us collect and analyze responses that we received. For this reason, we had created a survey form on Zoomerang ([http://www.zoomerang.com/](http://www.zoomerang.com/)). This is an automated survey processing system available free of cost. On creating an account, one has to form a survey, which can be sent as a link to people and then the responses are collected and analyzed automatically along with a host of other statistical information. Some general demographic information such as name, email, profession was collected. All the questions in the survey involved the readers taking the survey to interpret the pictures.
5. COLLECTING THE RESPONSES

Zoomerang makes it easy to collect responses. The link to the survey can be shared / emailed to friends, who can answer the questions just by clicking on the appropriate answers. It does not require much effort on the part of the person who responds to the survey. As a result of which people respond without much hesitation. We also received a fair amount of responses, sufficient enough for us to analyze the feedback and form clusters of creativity levels.
6. ANALYZING THE RESPONSES

Creative analysis often occurs by rummaging through a mass of data more or less haphazardly just to see what comes to light. Creativity is also seen as being increasingly important in a variety of other professions. Architecture and industrial design are the fields most often associated with creativity, and more generally the fields of design and design research. Fields such as science and engineering have, by contrast, experienced a less explicit relation to creativity. A lot of creativity lies in finding things that aren't readily apparent but that are obvious once discovered. From the responses collected so far, we conclude that students from CS background, who donot seem to have a lot of exposure to art, etc tend to think in the obvious way when it comes to design and creativity. The very first thought that strikes them becomes an answer to the question. It seems like they are slightly devoid of deep thinking when it comes to art/design. As far as the students from Math background are concerned, it seems like they most likely relate their answers to shapes, spheres, conical structures, etc. However, we find that the most intuitive and the well-thought-after answers come from students hailing from design/arts/architecture background.

7. CONCLUSIONS

• Creativity is most certainly shaped by the academic profession / background of an individual
• Since a person spends almost 8 hours of the day over his work life (profession), his thought process is directed towards his work life
• This typically constraints the thoughts, imagination and creativity in turn.
8. DRAWBACKS OF THE PROCEDURE

The procedure demonstrated in the report suffers from the following drawbacks:

1. We completely trust on the answers provided by the responders, but there is no way we can ratify these answers.
2. The variety of approaches reaffirms that no definite conclusion exists about how creativity should be measured, and the relations between creativity and intellect remain unclear.
3. There may be other responses that could have been included. But since the survey asked the audience to select the answers from those provided, this may have compelled few responders to restrict their answers to those provided. To tackle this issue, we had provided "Other" field as an option to every answer, so that people can pen in their own responses without having to be constrained.
4. Analysis of the survey is based only on the questions provided. More questions could have lead to a different analysis altogether.
5. Research must clarify ambiguities of definition and the role of creativity in education.

9. REFERENCES


