

# The Opportunity: To Discover What Makes a Creative Person

Ci2012 Scholarship Applicants Psychological Assessment of Creativity

The organisers of the Creative Innovation 2012 Conference saw an opportunity to find out more about the combination of factors that make up human creativity by inviting Genesys Australia to assess Ci2012 scholarship applicants who volunteered to be involved.

The conference organisers were keen to help us add to the growing research about creativity and the factors that constitute highly creative behaviour and application. A total of 38 scholarship applicants participated by completing the **me2** questionnaire and as a result, a number of interesting findings about the group were identified, and also compared with our study for the conference in 2011.

The me2 **General Factor of Creativity** is made up of **4 dimensions** composed of 12 factors that together provide insight into how people use and maximise creativity. The me2 questionnaire and assessment is based on leading psychology of creativity research by Manchester University's Manchester Business School, led by Dr. Mark Batey and the Psychometrics at Work Research Group. It is designed specifically for the workplace to assess and develop creativity in individuals and groups for innovation, problem solving, teamwork, change and adaptation, and leadership.

The participants were asked a number of questions about their thinking style, personality, motivation and confidence in relation to their creativity and problem solving. The results were then combined as a group and the characteristics across the group were analysed to identify any consistent trends or themes, and compared to last year's group.

As a group, the 2012 scholarship applicants who participated in the study showed a number of interesting indications about how people who exercise high levels of creativity operate. Overall, the applicants returned high scores for the General Factor of Creativity compared to the general population, with many scoring extremely high. This indicates that the mix of creativity factors and dimensions that the majority reported is closely aligned to those often found in people with highly developed creative skills and functioning.

# General Factor of Creativity 7 High

Overall, the Ci2012 Scholarship Applicants returned high scores for the General Factor of Creativity compared to the general population, with only a few scoring below average and very many scoring in the extremely high range.

# **Participant Scores**

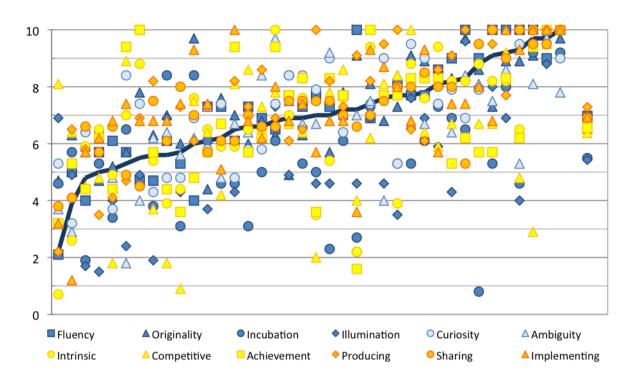


Figure 1. Participant's Individual Scores for the 12 Creativity Factors

# **Mean Scores for the 12 Factors**

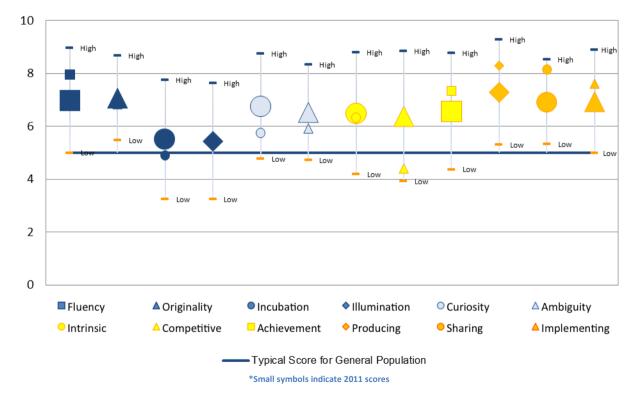


Figure 2. Mean Scores for the 12 Factors

#### **Idea Generation**

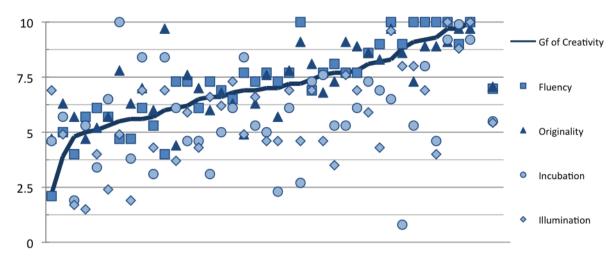


Figure 3. Idea Generation

People who freely use their creativity are highly fluent, which means they produce lots of ideas. Whether these ideas are practical or not, the key is the volume of ideas they are able to produce. As well as the number of ideas they produce, these people tend to produce different or unusual ideas. In their approach to thinking, they often like to incubate, or let their thoughts percolate for a while. This period will often be followed by moments of illumination, or "eureka" moments, when ideas seem to just come to them.

#### Fluency 7 High

The typical score of scholarship applicants on fluency was much higher than most. They reported being able to generate a large number of ideas when they need to. While many of these ideas might not be adopted, the more ideas that are generated, the more likely that a highly effective one is discovered.

#### Originality 7 High

The group reported a high capacity to generate original ideas. An original idea is often the beginning of an innovative solution to a problem. However, originality can also be exhibited in the way that existing ideas can be reused. The scholarship applicants are likely to be just as able to think of a more creative way of using an existing idea, as they are to think of an entirely new idea.

#### Incubation 5 Typical

As a group, the scholarship applicants are typical of the general population. That is, they are balanced between spending time incubating a problem and seeking a rapid conclusion. An ability to deliberately delay judgement contributes to idea generation and problem solving because incubating an idea allows more obscure options or conclusions to be considered.

#### **Illumination 5** Typical

Most of the scholarship applicants profiled as being typical of the general population in the number of ideas they found to 'suddenly appear' when working on a project or solving a problem. They are likely to be able to benefit from these ideas, while not being overwhelmed by too many random ideas, particularly at the closing stages of a project.

# **Personality**

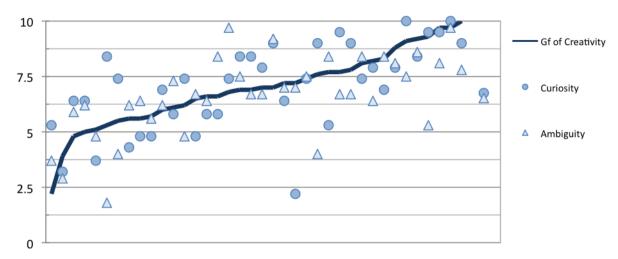


Figure 4. Personality

Creative thinkers are inclined to be very curious. They ask lots of questions, and want to know how things work the way they do, and why. The other personality trait that stands out in people who exercise creativity freely is that they are comfortable with a high level of ambiguity and uncertainty. These people tend not to see things in black and white, and are quite happy with contradiction, competing evidence and shades of grey.

#### **Curiosity 7** High

The scholarship applicants report having a high level of curiosity about the world in general and creative thinking in particular. This curiosity will often see them ask the questions that other people might not. The members of this group should be very good at finding the right problem to solve or choosing the project with the most successful outcome.

# **Ambiguity 7** High

Overall, this group also profiled as being high on ambiguity. Often there can be competing ideas for a solution. These can be mutually exclusive. Seeking closure too early can result in a less optimal solution. With higher ambiguity, mutually exclusive ideas can be tolerated much longer until a decision can be made that can take into account all the relevant facts. The advantage to being highly tolerant of ambiguity is that they will be unlikely to rush to a decision just for expedience. Having a high score on ambiguity suggests that they will spend more time combining different ideas and suggestions in order to produce more creative results.

#### Motivation

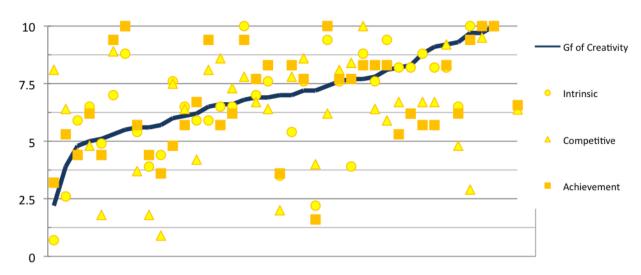


Figure 5. Motivation

Creative thinkers tend to be motivated intrinsically. This means that they have a strong drive that comes from within them. They will be very self-motivated. In addition, these people tend to be quite competitive, and may want to "beat" other people with their ideas or be the first with their ideas. Although they may work well in a collaborative team environment and be willing to share their ideas with colleagues, they might want the team to do better than its competitors. People who operate in a highly creative way will likely show high achievement, in that they tend to push themselves to work very hard and to achieve excellence in the way they work and the things they produce.

#### Intrinsic 6 High

Reporting a higher level of intrinsic motivation than most, the scholarship applicants are more likely to want to pursue an idea or explore more possibilities to their conclusions. They are unlikely to be satisfied with just making do.

#### Competitive 6 High

As a group, the scholarship applicants are more likely to be further motivated by the possibility of their idea being chosen over others. This competiveness can manifest itself in wanting to beat their personal best, other team members' ideas, or the ideas of rival groups. As we saw in the London Olympics, such motivation can often mean the difference between gold and silver medals.

However, the scholarship applicants varied much more on this factor than any other, with individuals scoring extremely high and others extremely low. This suggests that while most were very competitive, there were also a number of applicants who were motivated chiefly by collaboration and who would seek opportunities to cooperate with others on a project, rather than compete.

# Achievement 7 High

The typical score for scholarship applicants on achievement was much higher than most. Once they take on an idea they are less likely to give up if they encounter unforseen obstacles. Motivated by the completion of a project, they are more likely to pursue an idea. Possessing a very strong desire to excel can help to overcome obstacles to seeing a creative idea become a reality, and this focus on achievement can help when creative ideas are criticised or challenged by others.

# Confidence

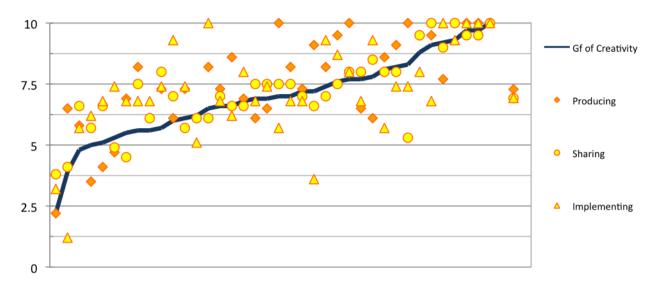


Figure 6. Confidence

Creative thinkers tend to be very confident about their ideas. This applies to having ideas, believing in the quality of their ideas, sharing them, and being able to confidently implement them. A person's confidence in their creativity is the strongest predictor of their overall creativity.

To paraphrase Henry Ford, 'Whether you think you can [be creative], or you think you can't, you're right.'

#### **Producing 7** High

The scholarship applicants reported a high level of confidence in their ability to successfully come up with a creative solution to a problem. Not only are they able to produce a large number of original ideas, they also expect that among them will be effective solutions to the problem.

# Sharing 7 High

The scholarship applicants also reported a high level of willingness to share their ideas. They expressed a high level of confidence in the quality of their ideas or in the security of the audience with whom they share their ideas. Ideas never come out of a vacuum. The sharing of ideas allows everyone to benefit from the ideas of others.

#### Implementing 7 High

As a group, the scholarship applicants reported a high level of confidence in their ability to implement ideas. They believe themselves to be doers. Not only do they have high levels of confidence in thinking of ideas and are willing to share them, but they also expect to be able to overcome any obstacles that might arise and complete the project. This has significant relevance to innovation, in which creativity drives the production of new products and services.

#### Conclusion:

Given that it was expected that the scholarship applicants as a group would be made up of many highly creative and innovative people, it is no surprise that the group scored extremely high on many of the factors that identify creative thinkers.

When comparing the results with last year (the mean scores are represented in Figure 2 by the smaller symbols), there appear to be marginal differences only, with some factor scores higher and some lower. The one significant difference was for the motivational factor of Competitive. The 2012 applicants scored significantly higher compared to last year's applicants. When marginally higher scores in Curiosity and lower scores in Sharing are taken into account, this year's group appeared particularly driven to find new problems to solve, and to produce a solution before anyone else.

What is also of interest is the small number of factor scores that were more typical of the general population. These factors were Incubation and Illumination. On these factors, the scores were similar to last year's applicants. This could be reflective of environmental factors, where the applicants' work environments could vary from those that encourage time between preparation and decisions and those that place pressure on them to reach decisions quickly.

This study shows that these individuals share many characteristics in the way they think, how they behave, what motivates them and their degree of self-confidence in being able to produce creative work and outcomes. The study also shows that even those individuals who scored highest on creativity overall can gain scores that are typical or even low on some factors. The reverse can also be true for those who score in the typical range on creativity, but who also attained very high scores on some factors.

We believe that everyone has their own individual creative style, and that creativity can be deliberately and purposefully harnessed and put into practice individually and within teams. Having a clear idea of how individuals fit together creatively can help us understand much more about how to get the most from ourselves, our teams and our environment.

It's not just how creative you are, but how you are creative.

#### **Genesys Australia**

Genesys Australia is a national workplace psychology practice, which specialises in providing assessments for the workplace.

We have conducted individual and group creativity reports for large and small organisations across Australia, and are the Australian and New Zealand distributers for the me2 Creativity Diagnostic tool.

We can train organisations to conduct their own creativity assessments, assess organisations and prepare reports, or provide exercises and strategies to increase creative outcomes in individuals and teams.

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