Overview

In the creative problem solving process (finding, solving, and evaluation), there is general agreement that the ability to create and evaluate various viewpoints is essential (Kuhn & Dean, 2004) when given problem scenarios like “I am in a new city and need dinner”. One useful technique seems to be the ‘six-hats technique’ (SHT) put forward by de Bono (1992).

Another technique is the ‘six good men’ technique (SMT; Kipling, 1993), which involves applying the question words ‘who, what, why, when, where and how’ to generate different perspectives.

Until Vernon and Hocking (2014), evidence for the effectiveness of SHT and SMT was anecdotal at best (see, e.g., Benjes-Small, Berman, & Van Patten, 2014). Vernon and Hocking found that both techniques increased the number of problems (fluency) generated in a problem-finding scenario and made them more original in comparison to controls.

In optimising the technique, we can ask ‘What is the best order of the elements in the techniques?’ For the Six Hats, Paterson (2006) has suggested that ‘certain sequences work better than others’ (p.11), but, as it stands there is no clear evidence to support such a claim, and it is important from both the theoretical and applied perspectives to investigate this further.

Research Questions

1. For the Six Hats Technique, does the order in which the various hats are used influence problem finding?
2. For the Six Men Technique, does the order in which the men are used influence problem finding?

Methods and Materials

107 participants were randomly allocated to Technique (Six Hats, Six Men, Control*), were trained briefly, then used the technique in each Order (forwards and backward) on two problem scenarios (Paletz & Peng, 2009):

1. You are a scientist who is studying monkey behaviour in Africa. You see some of the monkeys eating dirt. Usually they just eat leaves and fruit.
2. Pretend you are a scientist studying climate change warming (say, 20 years) is followed by extremely cold weather for at least 100 years. It looks as though global warming might cause an ice age for the following century.

Creativity measured in terms of fluency, flexibility, originality and quality.

Six Hats Technique, forward order: - White (information), Green (creativity), Yellow (positives), Black (negatives), Red (feelings), Blue (meta)

Results

<table>
<thead>
<tr>
<th>DV</th>
<th>Technique</th>
<th>Order</th>
<th>Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluency</td>
<td>&lt; .01</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Flexibility</td>
<td>&lt; .01</td>
<td>&lt; .01*</td>
<td>-</td>
</tr>
<tr>
<td>Originality</td>
<td>&lt; .01</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Quality</td>
<td>&lt; .01</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 1. Significance of Group Differences

<table>
<thead>
<tr>
<th>DV</th>
<th>Six Hats</th>
<th>Six Men</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluency</td>
<td>Better than Hats and Control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flexibility</td>
<td>Better than Hats and Control</td>
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</tr>
<tr>
<td>Originality</td>
<td>Worse than Control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality</td>
<td>Worse than Control</td>
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</tbody>
</table>

Table 2. Pairwise Comparisons

Discussion

Six Men were the same or better than Six Hats for fluency and flexibility. Is this because Six Hats is harder/requires more training? Less suitable for these problems?

Six Hats worst for originality and quality. Why? Controls and Six Men Ps might experience less cognitive load during testing. Are these DVs more sensitive to load?

- Why different to Vernon and Hocking (2014)?

Main effect of Order isn’t so interesting because Control (and the Six Men, somewhat) are not predicted to show Order differences.

Is there another ‘goldilocks’ order for either Six Men or Six Hats that we haven’t tested? Possibly.

Key References


Contact

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Key References
