The Effects of Different Tasks in Multitasking on Idea Generation

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ABSTRACT

With the availability of mobile devices, consumers have a tendency to perform more than one task at a time. The purpose of this study is to examine different types of tasks in multitasking and how they affect consumers’ ability to generate ideas.

We found that, overall, the type of task in multitasking had different effects on participant’s ability to generate ideas. Participants who engaged in multitasking generated more ideas than participants performing a single task. Among the multitasking conditions, a negative relationship was also found between task enjoyment and the number of ideas generated such that the condition with the highest number of ideas generated ranked lowest in enjoyment.

INTRODUCTION

• With the increased availability of mobile devices and media, there has also been an increase in the amount of multitasking that consumers engage in. Some multitasking activities have been found to aid in cognitive tasks such as ability to concentrate and deeper level processing (Andrade, 2009). In this research, we identify three types of tasks in multitasking – fiddling, doodling, and coloring.

• Fiddling is defined as “playing with an object, usually through absentminded manipulation with the hand.” This is very similar to a type of multitasking called fidgeting, or an absentminded, repeated, bodily action shown to modulate focus (Karlesky & Isbister, 2014). We theorize that increased focus will positively influence creativity. This is represented by the Stress Ball condition in the study.

• Doodling has been defined as aimless scribbling usually within a margin. This is connected to increased attention while performing monotonous tasks (Andrade, 2009) which has been shown to support creative idea generation (Hao et al., 2015, Eysenck et al., 2007). This is represented by the Doodling condition in the study.

• Coloring can be defined as using material(s) to change the original color of something to one’s desire. The activity of coloring has been found to have many benefits such as reducing anxiety (Vennet & Serice, 2012) which can potentially increase creativity (de Acedo-Baquedano & de Acedo-Lizarra, 2012).

METHOD: EXPERIMENT

Four Conditions:
• Single Task (Control)
• Stress Ball
• Doodling
• Coloring

• One hundred and sixty-four students participated and were randomly assigned to one of the four conditions. Participants were given five minutes to complete the Single Task (Control) condition and ten minutes to complete all other conditions.

PART ONE:

SINGLE TASK (CONTROL)

• Participants (n=41) completed an idea generation task (Guilford, 1967) in which they were instructed to generate creative uses for a newspaper.

STRESS BALL

• Participants (n=41) completed the same idea generation task while playing with a stress ball. They were instructed to play with the ball for the entirety of the experiment.

DOODLING

• Participants (n=42) completed the same idea generation task while doodling on a blank piece of paper.

COLORING

• Participants (n=40) completed the same idea generation task while coloring simple images which were provided: a flower and a snail.

PART TWO:

• Participants answered questions regarding their enjoyment of the task as well as demographic information

ACKNOWLEDGMENTS

We thank Kassem Charafeddine, Gracia Clark, Yooik Jo, and Melody Becker for their help with data collection and coding. This project is sponsored by Student Blugold Commitment Differential Tuition funds through the University of Wisconsin-Eau Claire Faculty/Student Research Collaboration Grants program. We also thank ORSP for the grant we received to help fund this research and LTS for their printing services.

RESULTS

![Graph showing Mean Ideas Generated and Task Enjoyment](image)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Mean Ideas Generated</th>
<th>Task Enjoyment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Task (Control)</td>
<td>7.73</td>
<td>4.1</td>
</tr>
<tr>
<td>Stress Ball</td>
<td>11.17</td>
<td>4.07</td>
</tr>
<tr>
<td>Doodling</td>
<td>9.1</td>
<td>4.07</td>
</tr>
<tr>
<td>Coloring</td>
<td>8.85</td>
<td>4.88</td>
</tr>
</tbody>
</table>

• Participants generated the most ideas in the Stress Ball condition, however this condition ranked lowest in overall task enjoyment.

• Participants reported enjoying the Coloring condition the most, and this condition had one of the lowest scores for idea generation.

FUTURE RESEARCH

• This study has many implications for future research including exploration of the negative relationship between task enjoyment and the number of ideas generated in the multitasking conditions.