

# Examining the effect of Attention Training Technique on task performance in situations where others have noticed

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## 1.Introduction

A high level of self-focused attention to oneself has been identified as a factor in maintaining anxiety and depression. The effectiveness of the Attention-Training Technique (ATT) as an intervention for excessive self-focused attention has been shown. In addition, the use of the ATT has been shown to increase attentional flexibility and promote "present moment awareness". On the other hand, there were few studies about the effects of ATT on behavioral aspect. Therefore, this study examined the impact of high self-focused attention on behavior and the impact of experiencing ATT on behavior. The purpose of this study was to examine the impact of the present study also examined the effects of self-attention and the ATT on healthy adults, with the first study It was Subsequently, to examine the impact of self-attention and ATT in people with mental disorders and to test the maintenance of the effects of ATT The second study was conducted using a multiple ABA design. Finally, we discuss what can be considered from the results of both studies.

## 2.Methods(First study)

Participants: 34 university students (11 males and 23 females) in Tokyo attended this study. None of the participants had a disability.

Procedure: participants were randomly assigned to three groups, group A, group B and a control group, to perform the task. At first participants experienced the task as a practice. Then participants of group A and B had the experience of self-focused attention operation. Group A was then subjected to 15 minutes of ATT, and Group B and the control group were subjected to 15 minutes of environmental sounds. After 15 minutes, the participants in all three groups performed the same task again. The task was performed in an environment in which two observer were watching the participants' hand movements. After the task the participants responded to a questionnaire about their status during the implementation of the task in the production.

Task performed: the maze task in Figure 1 was used. Participants were asked to trace path of the maze using a ballpoint pen and complete it in 60 seconds or less, while avoiding contact with the frame. I had him trace it with a ballpoint pen.

Self-focused attention manipulation: After the practice, we circled the point where the line touches the frame. We told the participants to pay attention to these check points during the next performance. By teaching the participants to put it on, we manipulated the participants to pay attention to the trembling in their hands. (See Figure 2.)

Questionnaire: a score from 0 to 100 for the states of nervousness, anxiety, attention to hand tremors and sense of accomplishment during the performance of the task.

Measure: The amount of change between the first and second session was compared among groups with respect to the completing time for the tasks and the number of points in contact with the frame.

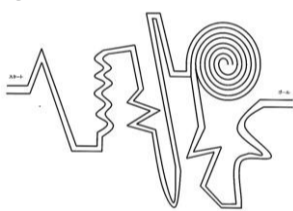


Figure.1

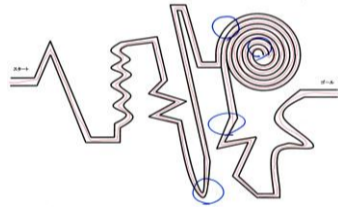


Figure.2

## 4.Methods(Second study)

Participants: 9 mentally disabled people (8 males and 1 female) living in Tokyo were included in the study.

Procedure: participants were randomly assigned to two groups, group D and E, and the task and self-focused attention manipulation were repeated, alternating between the ATT implementation condition and the environmental sound listening condition, respectively.

Group D; Practice → ATT condition → Environmental sound condition → ATT condition  
Group E; Practice → Environmental Sound Condition → ATT Condition → Environmental Sound Condition

By comparing task performance in alternating conditions, we examined the effects of self-focused attention manipulation and ATT in mentally mental disordered individuals and whether the effects of ATT were maintained intact in subsequent tasks.

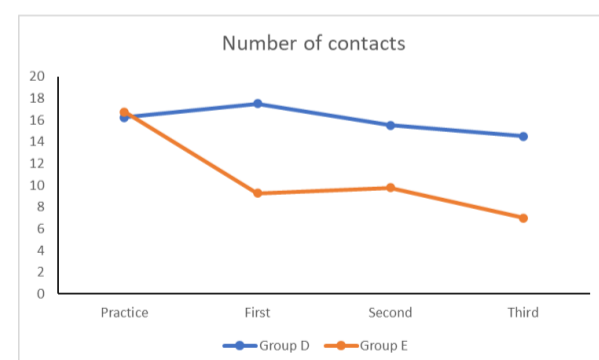
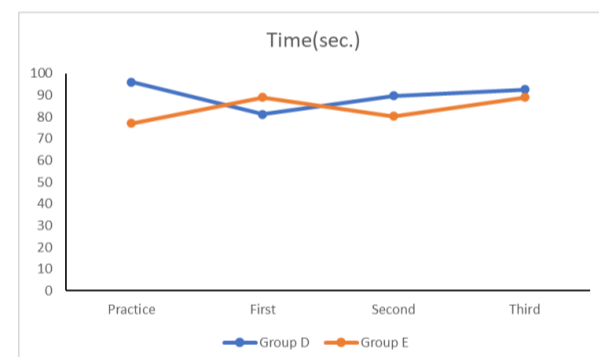
The tasks and self-focused attention manipulations performed were the same tasks and the same procedures as in the first study.

Measures: the average of the time taken to complete the task and the average of the number of areas in contact with the frame were used as indicators.

## 5.Result(Second study)

The averages for each group in terms of time to completion of the task and number of contact points on the frame are shown below.

In terms of time, as in the first study, the self-attention manipulation slowed down the tracing speed and The results showed a tendency for the rate of speed reduction to increase. However, there was a tendency for the decrease in speed to be recovered by the ATT. On the other hand, there was no tendency for the effect to be maintained.



## 6.Discussion

The results of the first study showed that increased self-focused attention can draw attention to one's own hand shaking and tracing it was observed that speed was slowed down, i.e., behavioral fluency was reduced. In contrast, the use of the ATT was found to prevent a decrease in fluency. Thus, the ATT improved attentional flexibility, and the participants were not only able to perform the hand shaking but also the task It is possible that the students were able to perform the task while also being able to pay attention to the time during implementation.

The results of the second study also suggested that this trend was seen regardless of the presence or absence of disability. On the other hand, there was no maintenance of the effect of ATT, suggesting that it may take some time for the effect to be maintained the results of the present study also suggest that repeated practice in.

## 3.Result(First study)

The amount of change between the mean of the first and the mean of the second performance in terms of the number of places in contact with the frame and the time to complete the task is shown below. There was no significant difference in the number of contact points among the groups, while there was no significant difference in the number of contact points among the groups. On the other hand, there was a significant difference in time among groups A and B ( $p < .05$ ). The scores on the questionnaire were also presented as median scores.

