

AN EXPERIMENTAL STUDY ON THE PERFORMANCE OF ADDRESS-MATCHING TASK IN NON-FIXED TIME AND FIXED TIME SITUATION

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Abstract: Researcher has the purpose of experimental study in the non-fixed time situation and fixed time situation (15 minutes) on the performance of address matching task. Fix time creates pressure of time. 30 Samples with age range from 15 to 17 years and class standard from 8 to 10 standards were selected from Samastipur district of Bihar through Stratified Random Sampling Method. Two groups (N=30 X 2) were made in this study. Format of address matching was prepared by present researcher. Fifty questions' set was provided for samples that contained items related to matching the original address from five alternative addresses. Test-retest method, the odd-even split half method and first half-second half reliability coefficient method of this scale were found to be .88, .96 and .99 respectively. For understanding the validity of this scale, opinion of a five member committee was taken who were all psychologist. Results indicated that the performance of group-1 (Non-fixed time group) was significantly better than the group-2 (fixed time group). In other words, Time pressure is a responsible for poor performance, deficit attention and lack of concentration work. On the basis of this result, it concludes that performance decreases in pressure of time.

Keywords: Experiment, Fixed time, Time pressure, Performance.

Introduction: Time pressure is becoming an increasingly prominent feature of work. It is likely that anyone reading this paper has a daunting "To Do" list on the current mental agenda. At the same time, with the growth of knowledge work, there is an increasingly urgent need for creative thinking in organizations. Some people hold that it spurs them on to their best work; others say that it makes high levels of performance almost impossible. Prior research on performance effects has demonstrated clearly that time pressure defined as either subjectively perceived time pressure or the imposition of a deadline, increases the rate of individual and group performance (Kelly and Karau, 1999). However, results have been much less consistent on the quality of performance, with evidence of a positive relationship (Kelly and Karau, 1999), a negative relationship (Kelly and McGrath, 1985), a curvilinear relationship indicating an optimal level of moderate time pressure (Isenberg, 1981), and no relationship at all (Bassett, 1979). Importantly, most of this research has focused on the performance of relatively straightforward tasks rather than tasks requiring creativity. If people are too busy, they may not allocate the time to engage in this sort of thinking. Campbell's (1960) ground-breaking theory of creative thought proposed that the central process is an evolutionary one, whereby the mind generates more or less blind variations or combinations of ideas, and then selectively retains the most useful novel ideas; Simonton's theory (1999) elaborates on this notion. The more time that is made available for this type of thinking, the more variations that can be generated and evaluated.

There is suggestive evidence from the problem-solving and decision-making literatures, as well. In a review, Edland and Svenson (1993) noted that people working under time pressure tend to employ the strategies of "filtering (processing some parts of Time Pressure and Creativity 4 the information more, and others less), acceleration, and omission (ignoring particular parts of the information)". For example, in a gambling simulation study, Ben Zur and Breznitz (1981) found that individuals under high time pressure focused almost exclusively on negative information (i.e., probability of losing) and accelerated the decision making process, resulting in a preference for low-risk solutions. Janis (1982) attributes this phenomenon to the state of "hyper-vigilance" (excessive alertness to signs of threat or pressure) that is triggered by the time pressure and other stressful situations. The reasoning is that, because hyper-

vigilance in response to approaching deadlines causes people to increase the selectivity of the information they process and to make a decision without generating all of the available alternatives, it "leads to ill-considered decisions that are frequently followed by post decisional conflict and frustration" (Janis, 1982). These notions are consonant with those of threat-rigidity theory, which proposes that, under threatening situations, individuals and organizations become more likely to rely on familiar algorithms. In sum, the literature suggests that time pressure is likely to result in shallow, narrow, conservative thinking – the opposite of creative thinking. This shallow, narrow, conservative thinking should affect not only the exploration for new ideas, which is termed "response generation" in the componential theory. It should also affect each of the other elements of creative cognitive processing. Under time pressure, people may be less likely to take the time to understand a problem deeply ("problem or task identification"), or to fully prepare to solve the problem through learning and contemplation of what they have learned ("preparation"), before they delve into response generation. Moreover, they may be less likely to fully think through or talk through the implications of the response possibilities they have generated ("response validation and communication"). In other words, the entire set of elements that make up creative cognitive processing could be adversely affected by time pressure.

Time use is linked to the feeling of time pressure. In today's organization of work, more people are given higher job task autonomy. They have to plan their work by themselves to a greater degree and, to a certain extent, have to decide individually when the work is done. People, especially high-skilled workers, also tend to identify themselves more closely with their job and hence end up working longer hours. Generally, longer working hours are associated with an increased feeling of time pressure. Generally people have to make choices in order to counteract the sense of time pressure. It is possible to find immediate practical solutions: use time management methods, outsource domestic tasks, or look for mechanical ways of saving time (for example, buy a dishwashing machine). However, people need to assess their overall use of time and make deliberate lifestyle choices. Otherwise, they will continue to overload the free time gained with other activities and engagements.

Time pressure can trigger heuristic information processing and thereby influence decision making (De Dreu, 2003), people are able to assess the priority of different tasks while dealing with a task, and switch to the most important task if necessary. They are not captured in their current task when facing time pressure.

Karina Rasmussen and Robert E O'Neill (2006) results indicated that the provision of attention on fixed-time schedules substantially reduced the participants' rate of verbal disruptions. These decreases were maintained during initial thinning of the schedules. The results provide one of the first examples that such an intervention can be successfully implemented in a classroom setting.

Performance is an activity and behaviour that leads to a result, e.g. a change in the environment (Singh, 2004). But, Freeman (1962) described in different way. He defined of performance, in performance; language is used only in the instructions or not at less when directions are given in pantomime. According to Webster Dictionary (2001) reported that performance is the manner in which or the efficiency with which something reacts or fulfills its intended purposes. In this Dictionary, there are also defined as an act of performing. On the base of above view, it may be defined that cognitive performance is a received the result of efficiency in field of perception, memory, judgment, reasoning, attention, emotions, etc. Andrews & Farris (1972) found a positive relationship between perceived time pressure and the rated innovativeness of the scientists' work

Today life is very fast and busy due to lot of work pressure and desire to earn more and more money. Nobody wants to rest. In changing scenario, late marriage, late issue of child, separate and freedom life, no time for child rearing, broken the joint family, puzzle work, dealing with many work, complex task, etc. is a result of human pressure. Previously, women were generally free exceeding, the domestic work and child rearing practices. But now women are changing and they are getting good education and job and their result, nobody is free in mostly families. Therefore, Human has usually time bound target. They have lot of work. So in this situation, mostly people feel more and more work pressure and their

effect mostly feel the time bounded pressure. In this circumstance, low productivity and feeling of pressure is caused of loss of rest and busy life (Kocher, 1996). In these circumstances, mental works that require concentration may be affected.

Workload and work pressure are much closed word and both words are used for each another. In this sense, Workload and work pressure are very similar and have few difference between the workload and work pressure. Singh (2004) said that pressure is a result of excessive and stressful demands. Indirectly, Singh and Parasuraman (2001) also reported as a mental workload (pressure) for sense of excessive work and complex tasks. Behavioural, psycho-physiological and subjective judgment is responsible for feeling of work pressure and workload (Desai, 1999). Feeling of pressure are depends on depends individually (Singh, 2004). Therefore, some person may feel more or less pressure and another person may not feel of pressure. In other words, Role of individuality is a main key for deciding the feeling of pressure. Some studies proved that feeling of work and time pressure is influenced by people's education (Singh, 2004), occupation (Singh, 2004), family (Singh, 2004), demands (Singh, 2004; Yeh and Wickens, 1988), task characteristics (Warm *et.al.*,1991), capacity of attention and concentration (Warm *et.al.* 1991), task difficulty (Derrick, 1988), interaction of systems and tasks (Moray *et. al.*, 2000), worker's capability and motivation (Moray,1988), facilities of resources (Yeh and Wickens, 1988), capacity of memory (Yeh and Wickens, 1988).

Above reviews reveled that few studies are conducted as a role of time pressure on the performance of address matching task. On the basis of this idea, researcher has the purpose of experimental study in the non-fixed time situation and fixed time situation on performance of address matching task.

Method:

Sample: Thirty samples were selected form Samastipur district of Bihar through Stratified Random Sampling method. Two groups (N=30 X 2) were made in this study. They ranged in age from 15-17 years with class standard from 8 to 10 standards. Both male and female were selected.

Instrument: The following instruments were used:

1. **Personal Data Schedule:** A personal data schedule was prepared by present researchers to get necessary information like the age, gender, locality, etc.
2. **Address Matching Schedule:** Format of address matching was prepared by present researcher. Fifty questions' set was provided for samples that contained items related to matching the original address from five alternative addresses. Test-retest method, the odd-even split half method and first half-second half reliability coefficient method of this scale were found to be .88, .96 and .99 respectively. For understanding the validity of this scale, opinion of a five member committee was taken who were all psychologist. In other words, for knowing the test-retest value for reliability, there were gaped for fourteen days and for knowing of the split half method, odd-even method and first vs. second half were used. Only one answer was correct and therefore obtained score of possible range was 0-50. High scores indicate the higher performance of cognitive work. t-value was used for further statistical analysis. In all over work, attention was required because there is not seen of mistake in the general view. So for searching of appropriate answer, mind concentration and attention was compulsory in this work.

Variables: Flexibility of time situation was independent variable and address matching task was dependent variables. Light, time and motivation for the work was controlled.

Procedure and Analysis of Data: Good rapport establishment was made from all samples and said about the purpose of this study. Instruction was also given according to the guidelines of above scale. There were arranged for sit in Distant from each subject. Experimental design was used in this study. Two groups (N=30 X 2) were made in this study. In first group, a time was not fixed, but takes the time about one hour. But, in second group, time was fixed for 15 minutes. In other words, all same subjects were participated in both tests/groups. Both tests were also same in both groups. Gape of one week was

kept between the first and second phase data. Mean, SD, t-value, etc. was used for further statistical analysis. Correlation means difference method was used in analysis of data for t-value.

Results and Discussion:

Table No. 1: Comparison of Scores of Address-Matching Task in the Fixed And Non-Fixed Time Situation

Group	Mean	Difference of mean	N	SDD	SED	t-value (df=29)	p-value
First Group (Non-fixed time)	31.23	5.93	30	4.14	0.76	7.802	P<.01
Second Group (fixed time)	25.30						

The results displayed in table no.-1 showed significant ($t\text{-value}=7.802$, $df=29$, $p<.01$) effect of time pressure on address-matching task. This result clearly indicated that performance of address-matching task was found to be better in non-fixed time (Mean=31.23) as compared to fixed time situation (Mean=25.30). This result clearly indicated that difference of mean (5.93) is decreased in the performance of completion of work within target time. In other words, allotted of fixed time is a barrier for the performance of address matching tasks. It is fact that human do work sincerely if work are related to search out the micro level mistakes. Selected items were related to address matching work with five alternative options and there were very difficult to search out the true answer. Really this work was very difficult in this sense that search of appropriate answer was also very tuff. . Because all alternatives answers were looking the very similar and have had some micro level mistakes. It's seen that people do the any work freely. They have not feel of time pressure. Hence they have ability for search seriously and that time they concentrated on that point due to feeling of lot of times are having for this work in the condition of no bound of time limitation. So they catch the mistakes. In this condition, There will not be chanced of mistake and after effect people achieved most of target. On that time people feel only completed the work. People want to completion of task and don't want to blank any items. So in this case they could not able to seriously check because they feel time is very shortage for this work. In this study, searching of appropriate address was difficult from matched by original address. So in this situation, mistakes in work are natural in time pressure situation and their effect they work faulty and gate poor performance. O'donnell and Eggemeier (1986) also said that performance efficiency in multi task situation is decreased due to limit (shortage) of time. Yeh and Wickens (1988) indirectly supported this view that sharing of time is a responsible for work performance. Above result is in good direction that performance of address matching task is good in the situation of non-fixed time and non-bound time environment. Otherwise, pressure of time is a cause of faulty and poor performance.

Conclusion: Time pressure is a responsible for poor performance (includes cognitive performance), deficit attention and lack of concentration work. All performance decreases in pressure of time.

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