

An evaluation of the Pomodoro Technique for stopping procrastination and behaviour change

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Abstract—Today, as the pace of modern life increased, people feel more anxious and suffer from different stresses. Procrastination, as one of the most common behaviour, attracts many people to focus on their time management and consider how to bear it. One of the popular methods is the Pomodoro Technique. In this study, we examine and discuss the principle of stopping procrastination and evaluate if the Pomodoro Technique could help people stop procrastination or change their bad habits effectively.

Keywords—*Procrastination; the Pomodoro Technique; behaviour change.*

I. INTRODUCTION

Procrastination as an action or habit to delay initiating or completing urgent tasks has recently become a common phenomenon in the past decades (Krause and Freund 2013; Howell and Watson 2007; Solomon and Rothblum 1984). People know they have to start their jobs but often postpone for many reasons. They also attempt to concentrate on works but interrupt by other activities like checking emails or sending messages. In 1992 the Pomodoro Technique as a simple time management method appeared to help users improve productivity at work. People frequently use this technique to help them manage their time. In this study we analyse the behaviour of procrastination and the principle of Pomodoro. Comparing different methods of stop procrastination, the aim of this research was to evaluate the capabilities of the Pomodoro and discuss the scope of this technique.

The rest of this paper is organized as follows. First, it provides a brief literature review on the reasons of procrastination and introduces existing ways of beating that. Second, we describe how the Pomodoro works and identify its applicable users. We then analyse peoples behaviour changes and provide an evaluation and conclusion of how to improve this technique in future study.

II. PROCRASTINATION

A. Definition of procrastination

Procrastination is defined as the behaviour to avoid of doing some important tasks or accomplish a task until a later time. According to Rothblum & Mann (1988), it is a destructive habit for people completing tasks in career, study and personal life. Due to the pressure from the fast-paced world, a certain amount of procrastination is a normal and widespread behaviour (Schouwenburg and Groenewoud 2001). People may feel stressed to starting tasks and suffer from

more psychological pressure in facing upcoming deadlines (Rothblum and Mann 1988). Meanwhile, the research indicates that with time and punctuality becomes the most important value in the modern industrial society, people who are lazy and dilatory would carry much heavier cost.

B. Reasons for procrastination

Procrastination is considered to be a common and chronic behaviour. As Burka & Yuen (2008) described, “Procrastination is like a dandelion”. Its roots are tangled and not easy to remove. A variety of reasons could contribute procrastination and researchers have attempted to determine the specific reasons for it. According to Reasinger & Brown (1996) and Solomon & Rothblum (1984), personal and environmental factors may delay the initiation and completion of a task.

The personal factors of procrastination include inner feelings, memories, hopes, dreams, fears and pressures (Burka and Yuen 2008). Some procrastinator indicated that they are worried about failure, while others said that they avoid starting the project at hand. These two reasons for the procrastination are prominent excuses given by academic procrastinator (Reasinger and Brown 1996). The study noted that the fear of failing could leads to a task aversion, which reduces people’s self-esteem and makes them habitual. People feel that taking action probably conducts a certain amount of pain. When they get away from the deadline, their anxiety can be reduced. However, the impending deadlines would let them become more anxious and less confident. Thereby people who are not confident in their ability tend to delay the tasks easily. Another reason of the procrastination is people’s sense of time (Burka and Yuen 2008). Some procrastinators underestimate time commitments and do not make to-do lists. They do not have an organised and timely manner to finish their tasks and postpone more time than thought. This attitude causes the procrastination and a serious scrambling to get tasks done. In addition, people who are perfectionists would be worried about results less than perfect and delay the completion of tasks.

Some environmental factors may also lead to a tendency to procrastinate. It has been observed by Burka & Yuen (2008) that lacking self-control would more likely let people influenced by the temptation of social and environment. Otherwise, the degree of the difficulty of tasks and the motivation of completing tasks could also contribute to procrastination.

Despite these factors, however, the basic mode underlying procrastination is still not clear and quite complicated. The correlation between procrastination and academic performance

$$Motivation = \frac{Expectancy \times Value}{Impulsiveness \times Delay}$$

Fig. 1. The procrastination equation

is very low negative (Day, Mensink, and O’Sullivan 2014; Hill, Hill, Chabot, and Barrall 1978; Rothblum, Solomon, and Murakami 1986) or even no (Day, Mensink, and O’Sullivan 2014; Lay 1986; Solomon and Rothblum 1984). It is surprising that a considerable proportion of students who procrastinated but performed well. Thus, Day and his colleagues’ research indicated that the reasons for procrastination are not only just the effect of disruptive feelings or poor study habits.

C. Overcome procrastination

Having discussed what is the procrastination and the reasons for it, this section will look at how to beat the procrastination. First, we need to notice when we are procrastinating and ask ourselves what we should work on. As Krause & Freund (2013) and Reasinger & Brown (1996) proposed, the goal-related construct play an important role in stopping procrastination. Setting a goal with deadline could not put off tasks indefinitely (Burka and Yuen 2008). Then, we should try to identify why we are not doing tasks and where the problem is. Less control of time in a given period (Lay and Schouwenburg 1993), task avoidance (Solomon and Rothblum 1984) and the fear of failing (Krause and Freund 2013) tend to manifest people in a number of dilatory behaviour (Reasinger and Brown 1996). After clearly identify what reasons for procrastination, we could use the procrastination equation to stop putting off. The procrastination is a quite useful and simple finding on the human motivation and procrastination (Steel 2010). As shown in Figure 1, Motivation as the opposite of procrastination consists of different four parts: Expectancy, Value, Impulsiveness and Delay.

Expectancy refers to how much people’s expectancy of the success and how much they expect to get the reward. Increasing a task’s expectancy is likely to help people pursue its completion. However, too much optimism and helplessness is not good which may also cause people put off until the last minutes. Value involves the pleasantness of doing the task and the size of the reward. Making the task more rewarding and pleasant could increase the value of the task and motivation. Impulsiveness is one of the biggest factors in the procrastination and it refers to people’s ability to stay focused. Delay means how soon people could obtain a task’s reward. It is usually very difficult for people can change and do about it. Therefore, the more expectancy and value, the more motivation people will have to complete the task, while more impulsiveness or delay may increase procrastination.

According to Verplanken & Aarts (1999), a habit is doing something without thinking. Change people’s cognition of the procrastination and give them more positive suggestions to increase their confidence. Encourage individuals to complete the task on their own during self-management, and imagine the future and emotions when they succeed. Monitor their own behaviour change interventions actively and help procrastinators better analyse their behaviour (Michie, Stralen,

ONE POMODORO CYCLE

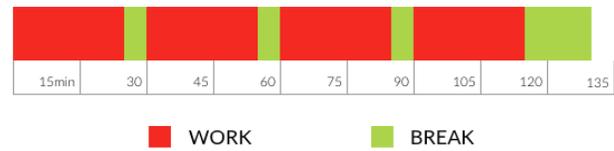


Fig. 2. One Pomodoro cycle

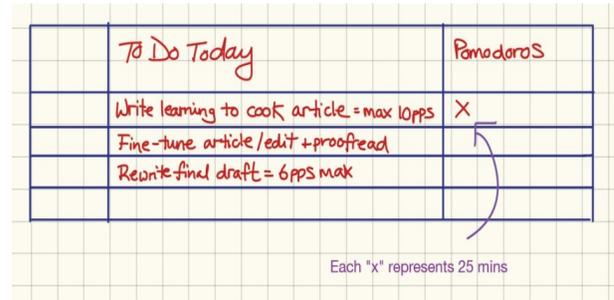


Fig. 3. To do list

and West 2011). People cannot avoid and ignore the task but can choose appropriate methods to relax and divert their attention. Break the goal into small pieces and set up a reward system or small successes to celebrate the progress. Otherwise, group atmosphere can be provided the procrastinator a special situation with full of understanding, concerns, trust, and this environment could bring a change in the individual’s behaviour.

III. POMODORO TECHNIQUE

A. Principles of the Pomodoro Technique

Pomodoro Technique is a simple time management method, which was created by Francisco Cirillo in 1992 and taught to others since 1998 (Cirillo 2006). Compared with the GTD (Getting Things Done) time management, the Pomodoro also helps people use time flexibly and effectively and not only improves the work and learning efficiency.

A primary Pomodoro is 25 minutes and do not exist a half Pomodoro. Between each Pomodoro, there is a 5 minutes break. As shown in Figure 2, users can have a longer rest after finishing four Pomodoro. At beginning of each day, users should choose the tasks they want to do and write them in the To-do-Today list like Figure 3. When they finish one Pomodoro, they could draw an “X” to represent 25 minutes that they have been working on. During each Pomodoro, users need to concentrate on their work. If they are definitely interrupted by other things, they need to drop off the current Pomodoro and start a new one. Thus, if users think a interruptions is not urgent, they can mark an apostrophe (’) near the current task then write down this new activity on the To-do-Today list and continue working on the given task until they finish this Pomodoro.

Using Pomodoro could encourage a clear-minded thinking, concentration and consciousness (Cirillo 2006). Some people think 25 minutes is too short at first, however, it has be

indicated by Cirillo's research that the Pomodoro works best with 20-35 minutes, up to 40 minutes. This length of the Pomodoro could mobilize users' attention and enthusiasm. In addition, the length of breaks between Pomodoros should be 5-10 minutes. More than 10 minutes may break the rhythm of the concentration. In fact, different people have different perceptions of time, it is a very individualistic habit that to understand how long the break is exactly required.

B. Advantages and disadvantages

Pomodoro Technique is a simple tool and process. According to Cirillo (Cirillo 2006), the Pomodoro is able to alleviate pressures from the time, increase sense of decisions, keep the motivation constantly, reduce interruptions and enhance the concentration. The basic inspiration for the Pomodoro combines the cognitive techniques (Buzan 1983), works of the mind and notions of structuring objectives (Gilb and Finzi 1988).

However, the main disadvantage is that the Pomodoro might make activities goal-oriented and scheduled (Cirillo 2006). It is not meant to fit all solutions and be perfect for everyone. Sometimes it is difficult to handle interruptions and environmental factors which might not allow user use the Pomodoro successfully. Otherwise, due to the Pomodoro Technique that needs to be helped by a mechanical object (a clock or software), discontinuing the use of the Pomodoro would cut off people's positive effects.

IV. EVALUATION

The Pomodoro inverts people's dependency on time. It turns the abstraction of time into small pieces and helps us form a new concept of time. It makes users focus on their current task and generates a positive tension. Every Pomodoro represents users' effort of the time management. The more time they experienced, the more opportunity they could improve. It may be easier to schedule activities and people feel less anxious in their works. Thus, the productivity becomes higher.

The Pomodoro also helps us regulate complexity. We accomplish several less complex tasks to maximize our motivation. Applying the Pomodoro Technique, people begin to realize that the high-intensity works may conduct lower efficiency. It is important for people have a rest and find different solutions from different aspects with 5 minutes breaks.

Observing and analysing the Pomodoro data, people can understand themselves better and find their own way to improve. Through consciously control their work time, people who use the Pomodoro Technique would find their specific physiological rhythm and the sustainable pace.

V. CONCLUSION

After evaluating how the Pomodoro reflect on time management and exploring the behaviour change of stopping procrastination, some discussions and conclusions have been drawn. According to researchers' studies, people increasingly rely on electronics and a large proportion of people have a habit of dilatory behaviour. Feeling failure and the avoidance of tasks are main reasons for procrastination and the Pomodoro is a good method of beat that destructive habit. However, it is

not ideal for everybody and all kinds of works. Even though it has some limitations, it is still a good tool to tackle users' daily to-do list.

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