

# Flow in High School Students in Malang

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**Abstract.** Flow can be defined as a subjective state in which is psychologically, physically, or affectively individual focused on one activity he was working. Flow is interesting to analyze in academic activities. In several prior studies, flow is associated with student motivation and procrastination behaviour. The purpose of this study is aimed to identify the description of flow experienced by senior high school students in Malang. This study used quantitative descriptive research. The participants this study were senior high school students situated in Malang. There were 120 students involved who consisted of three levels. The result of this study have indicated that 50.8% of senior high school students in Malang experience the low flow category. Based on the results of factor analysis, the dimension tendency of student's flow is autotelic experience dimension (0, 658) and the dimension low tendency of student's flow is action-awareness merging (0.502). Generally, even though this study showed that the higher the grade, the higher the level of attainment of flow.

**Keywords:** Flow, high school, student

## Introduction

The academic process is an activity to obtain scientific and theoretical knowledge. The number of obstacles both internally and externally makes individuals less competent to complete the academic process. Many obstacles are caused by pressure or demands in the academic process and motivation. Contrasting to high school level, universities level requires students to be more active in finding information. The academic system they receive is also different in each direction they take. The most common example is the academic system of students in the Teaching and Education Faculty with Engineering Faculty students or Medical Faculty students where academic stress arises due to lifestyle changes, academic achievement, busy lecture schedules, problems with friends and self-adjustment (Pathmanathan & Husada, 2013).

Moreover, it cannot be denied that many stresses experienced by students lie in academic stress. Stress in adolescents tends to be high and the number of students who experience academic stress continues to increase in each semester (Purwati, 2012). Academic stress is a condition where individuals experience the pressure generated by perceptions and judgments related to academic activities in their schools (Purwati, 2012). If the student has a perception or judges that the ability he has is not able to solve the existing demands, it will lead to academic stress so that academic stress is highly anticipated. Above and beyond, academic stress is also due to adversity quotient or the ability to survive when facing obstacles and pressure in low category (Ansori, 2015). The response of academic burden that causes stress on each student is different in terms of magnitude of the stressor gained and its ability to manage the burden (Purwati, 2012).

Academic stress will affect students' performance in learning activities. According to the Psychology of Australia, an academic stressful condition, students tend to become irritable and out of focus. Hence, they can affect their abilities and orientation towards the learning process activities followed by students (Purwati, 2012). With such a large impact, students may avoid and not be involved in the academic process again. Because of the enormous impact on the academic process, there are needs to be innovation to support students' learning in order to reduce the academic stress they feel. With differences in academic burden, different levels of stress are felt, (Prayana, 2015).

There are a lot of concepts of positive psychology and studies discussed how a person is able to improve the quality of his life or about his happiness in life. Starting from external aspects which are able to make the individual happily subjective, as well as the meaning of what is able to be taken from each piece of events in his life. The concept put forward by Aristotle states that a person's welfare if he has happiness and meaningfulness (Snyder & Lopez, 2007). The application of positive psychology as the strength of human resources and psychological capacity that can be measured, developed and effective to improve individual performance (Luthans, 2002). The research supports the application of psychology in improving individual performance. One part of positive psychology that would be applied in this study to improve performance is the experience of flow.

The concept of flow is from positive psychology that examines how a person is able to engage with the activities he does (Nakamura & Csikszentmihalyi, 2002; Shernoff & Csikszentmihalyi, 2009). Flow is an optimal experience of a person when doing an activity, where abilities and challenges can be fulfilled so that the individual feels enjoy carrying out the activity (Shernoff & Csikszentmihalyi 2009). With flow, a person

will enjoy his activities, able to get his own meaning from the activities he has done, so that subjective welfare will emerge. Many people are able to complete an activity, but they are unable to enjoy the process. From above explanations about the concept of someone's involvement in the activities, there is an assumption which then arises that not every person is able to enjoy himself in the activity so that the satisfaction or meaning of the activity cannot be achieved.

In a study of the relationship between experience flows with the level of psychological well-being, it shows that the higher experience of flow perceived by individuals, the higher psychological well-being will be (Fajrina & Rosiana, 2014). The subject of the study is an organization member student who has more activities compared to others. In this study, Fajrina measures flow by using 4 aspects. Furthermore, the most often arises when a person feels flow is absorbed by activity, fluency of performance, perception of importance of the task and aspect of suitability between the challenge and skill. In this study, Fajrina supports the data by interview methods that the subject's feelings when experiencing flow. Likewise, she also states that carrying out organizational activities becomes a forum that provide their interests, abilities, energy, and motives. In addition, this study explains the external demands of academics that may cause stress become one of the supporting factors so as to achieve psychological well-being.

Flow is related and inseparable with a learning process (Shernoff & Csikszentmihalyi, 2009). Moreover, when individuals learn a new thing is a challenge, and it is a must in order to learn from basic processes that may make them feel difficult. However, if the challenge is adjusted to the abilities that he has, the individual will achieve his flow. Achieving flow will occur if the level of ability is more in line with the level of challenges (Shernoff and Csikszentmihalyi, 2009). Further, not everyone is able to reach the flow while doing an activity. It is for the reason that it depends on how someone manages the challenge into creativity.

As explained in the previous paragraph, the academic system in high school tends to be heavier and different compared to the previous academic level as students must prepare the mental and their ability to go to college. Hence, there will be a burden that causes academic stress on students followed by different academic patterns. The emergence of academic stress allows it to be the cause of the emergence of motivational problems, the individual will feel bored, bored and unable to enjoy the activities he does. This is only an assumption that arises from several studies related to motivation, academic stress and experience of school flow. Arif (2013) explains that flow can provide benefits for students, such as making students more focused, creative, more simply to absorb learning material and to have an impact on optimal learning

outcomes. Still, it is also important for students to be able to feel the flow in every academic activity.

Looking at the phenomenon described above, it is very important to apply positive psychology particularly flow in academic activities. The formulation of the problem in this study is how many students are able to feel the flow, which aspects or what dimensions dominate when students experience flow. Consequently, this study is at aim to identify the description of the experience of flow faced by students. Therefore, it is expected that the results of this study will be used as a reference either for students or further researches related to flow, chiefly in high schools.

### Literature Review

Flow is a subjective state in which a person actually sinks into a point that makes him disremember time, feel tired, even everything else out of action (Nakamura & Csikszentmihalyi, 2009). Flow is a psychological state that has a long description process of Csikszentmihalyi and it is strengthened by other researchers in various situations such as work, school, sports and leisure (Jackson & Marsh, 1996). The state of flow is the experience of a positive state that occurs when a person is fully able to give the best appearance in a situation where the abilities and challenges of the activity are in the same level (Jackson & Marsh, 1996). While a person is in a state of flow, he runs an activity with full capacity (Nakamura & Csikszentmihalyi, 2002) a person becomes completely carried away in an activity and experience freely, awareness and enjoyment in the process (Jackson & Marsh, 1996). From the flow concept described above, it can be concluded that flow is a subjective experience when a person succeeds in integrating with the activities, feels comfortable and where the activity goes without feeling hunger, fatigue and discomfort but is able give the best appearance in the activity.

As explained in the first paragraph, that research flow is developed in a number of specific conditions such as, work, school, sports, leisure time and many others. This study focuses on the experience of flow felt by students in the academic activities they live. Flows are depicted a subjective ability in experience when one's skills and success in doing activities such as not requiring energy, whereas these activities require physical strength and a lot of mental energy. To be able to reach flow, the level of ability must be in accordance with the level of given challenge. As explained in Vygotsky's zone of proximal development, the level of ability in learning is assumed in stages until it is finally able to be mastered (Csikszentmihalyi & Shernoff, 2009). Therefore, Csikszentmihalyi & Shernoff (2002) measure the level of flow in academic and non-academic classes and the different types of classroom activities by using ESM method. There is a difference in the quality of flow in daily activities (sports, watching television) then the highest

level of flow is found in active classroom activities (doing tests, participating in groups, working individually) and in active activities (such as listening to the teacher, watching videos or television).

Flow has empirical data related to the development of talent in adolescents. Creative artists among teenagers mention that they feel the experience of flow when they are trying to create a painting. Arif (2013) explains a description of flow in the academic category, where conditions are felt when individuals can concentrate and enjoy academic activities, then it is called an academic flow.

Flow has 9 dimensions that become characteristic when individuals experience flow (Csikszentmihalyi, in Jackson & Marsh, 1996): (1) Challenge – Skill Balance, (2) Action – Awareness Merging, (3) Clear Goals, (4) Unambiguous Feedback, (5) Concentration on task at hand, (6) Sense of Control, (7) Loss of Self – Consciousness (8) Transformation of Time (9) Autotelic Experience.

**Method**

This study used descriptive quantitative research. The achievement of descriptive research was to describe, classify, and categorize events and relationships in providing an overview of mental processes and behavior (Shaughnessy et al, 2012).

The subjects involved in this study were senior high school students located in Malang. In detail, researcher randomly selected 120 students from 3 levels. In addition, the assortment was rooted from the importance of researchers in knowing the form of the application of positive psychology in a high school environment

Moreover, the variable used in this study was flow. Flow was a subjective state felt by individuals with full involvement in carrying out their activities. The instrument that would be used in this study was a flow measurement scale proposed by Jackson and Mars (1996), namely Flow State Scale. This instrument consists of 36 items that measure 9 dimensions, in which each dimension has 4 items to measure these dimensions.

**Result**

After collecting the data, there are some findings that will be presented through the table and figure below.

**Table 1.** Calculation of Z-Score Flow on Students.

Category	Interval Score	Flow	
		Frequency	Percentage
High	Zscore ≥ 0	59	49,2 %
Low	Zscore < 0	61	50,8 %
TOTAL		120	100 %

Table 1. Explains the number of students in general who are in a high flow state and low flow state during activities.

**Table 2.** Dimensions in Flow

Category	Sig.	Frequency
Challenge – Skill Balance	.539	10 %
Action – Awareness Merging	.502	10 %
Clear Goals	.572	11 %
Unambiguous Feedback	.587	11 %
Concentration on task at hand	.626	12 %
Sense of Control	.616	12 %
Loss of Self – Consciousness	.568	11 %
Transformation of Time	.602	11 %
Autotelic Experience	.658	12 %

Dimensions in Flow is a 9-dimensional description that has contributed to the flow state of students based on the results from the factor analysis test.

**Discussion**

In general, this study has found that 50.8% of high school students in Malang are in the low flow category. In this case, students build the perception that abilities are able to solve challenges in the activities undertaken, students have not been able to combine actions and awareness. The goal to be achieved is still unclear. The concentration that students have is not entirely focused on the task at hand. Students are still not able to control the difficult situations they face. During the activities, students have not been able to unite with activities such as, aware of the passage of time, and students have not been able to make these activities as their own satisfaction. As explained in the introduction of this study, there are differences in students in undergoing education in general. Students only need to learn in order to get best mark, yet they must meet the target that will be determined by the high school. Moreover, it is considered tough for students as different curriculum makes it unlikely to achieve.

Based on the factor analysis test, the result shows that the dimension with the highest tendency towards flow in high school students in Malang is the autotelic experience dimension with value of 0.658. The element that easily most appears in a flow condition is its own goal or better known as autotelic experience (Csikszentmihalyi et al, 1990). Autotelic comes from Greek, Auto means self and telos means purpose. It refers to independent activities not with hope in the future but when individuals do activities, then the process of completing is the real reward. This shows that when students are in a state of flow, satisfaction in carrying out an activity happens when students successfully undergo and complete the activity.

To be able to produce autotelic experience, the motive for achievement becomes a strong reason for individuals so as to perceive challenges with abilities possessed as

positive or negative. In a school environment, motivation is built from a moral component. Therefore, motivation is enthusiasm to fight, a result of training, self-confidence, firm and fair, discipline, and respect for others and clearly understand what is happening and what is needed (Development, Concepts and Doctrine center). Achieving motives for finding autotelic experience also cover the concept of risk-taking developed by Atkinsons (1957). He explains that individuals with high expectations for success and low fear of failure will take on a difficult task, unlike individuals who have a high fear of failure will try to avoid the situation (Baumann, without years). Consequently, individuals who have autotelic experience are those with high expectations for success by taking difficult risks. Risk taking from every action is something that characterizes or self-concept a student. So that is what supports the emergence of autotelic experience when students are in a flow condition.

In addition to the self-concept that has been formed in the school environment, students have progressively entered the stage of adolescence into adulthood. According to Schaie, in the cognitive development of adolescents, there is a phase of achieving achievement, namely a phase that involves the application of intellectuality in situations that have major consequences in achieving long-term goals, such as career achievement and knowledge (Santrock, 2002). Moreover, the cognitive development students have may become one of the reasons why autotelic experience has a tendency when students are in a flow condition.

This study also finds that dimensions that tend to be low are action-awareness merging. This shows that when students do their activities, students feel they need enough energy to complete the activity. Yet, students will feel that they need more thought processes to be able to complete an activity. There are many reasons why a person does activities, one of which is determined by an inner drive or an external drive. Internal encouragement can be found in the form of interest, while external encouragement can be an excuse to help, to get money or even a dignity. However, if someone is lucky then after they begin to enjoy the activity and after that change to reach the autotelic level (Csikszentmihalyi, 1990). This means that even though students have a tendency to experience autotelic experience, students still perceive the activity is an obligation that requires more energy and thought so that they cannot reach the dimension of action-awareness merging.

Furthermore, the results of the study finds that the higher the level of class that students live, the flow also increases. Hence, the flow experienced by high school students in Malang is generally based on an activity that has become a habit.

## Conclusion

Based on the results of this study, it can be concluded that most high school students in Malang experience low flow, with the tendency of the highest dimension is autotelic experience and the lowest dimension tendency is action-awareness merging.

The researcher is highly expected that this study can be used as a milestone for future researchers so as to be careful as there are drawbacks probably discovered. First, the measurement of flow has not been specified through activities students organize. Both measurement scales use in this study have not measured the flow state of students in academic activities, yet there are general activities that have not been measured.

In addition, researcher implicates that this study can be used in teaching and learning activities as there are methods that can motivate students to acquire higher flow experience. For the next researchers, it is expected another aspects of can be examined more deeply the flow based on the differences in individual characteristics, such as age, gender, culture and more importantly, measure the reasons for individual carry out these activities.

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