



SELF-DETERMINATIONS, INTERESTS, COMPETENCES, AND FLOWS ON STUDENTS OF SENIOR HIGH SCHOOL IN EAST LOMBOK, INDONESIA

Muhammad Takiuddin,

Immanuel Hitipeuw

Universitas Negeri Malang, Indonesia

Abstract:

The objective of this research was to identify the influences of self-determination, interests, competences, and flows on high school students. This research used ex-post facto design with 275 students randomly selected as research subjects. The used instruments: self-determination scale, interests scales, competences scale, and flow scales. This research was analyzed using Path Analysis. In conclusion, this research brought about the result of that self-determination had significant and positive effects on flow, interest showed significant and positive effect on flow, and competence, likewise, gave significant and positive effect on flow.

Keywords: self-determination, interests, competence, flow

1. Literature Review

Flow is substantial on the learning process because it can enhance concentration, enjoyment, and academic achievement as well (Schmidt, 2011). In fact, flow can make students more productive, enjoying their learning, and excited. Students who undergo flow get immersed more into learning process, have their academic performance increase, and prefer to take challenge (Shernoff, et. al, (2003)

In fact, a few of students who do not undergo flow over learning consider learning as stuffy, tedious, and stressful. Even more, few of students regard learning as burdensome for them. However, learning ought to be fun, comforting, and able to make students excited to have it (Shernoff & Csikszentmihalyi, 2009). In general discourse of Indonesia, few symptoms showing psychological stress of students were noted in a

survey carried out by Herlin Marta of Prapanca Research. It was found that students underwent psychological stress at school in consequences of too many subjects and lengthy learning duration (Harian Republika, 25 Agustus 2013). That survey was a pictorial of the fact that students are prone to be stressed out in the regular basis. That psychological stress is drawn on from miscellaneous factors, one of them is the thought of their learning subject is difficult.

A survey from Public Mental Health Centre (CPMH), Psychology Faculty, UGM (2013) on some high school students in a few of East Java' big cities has shown a result of a relatively high dissatisfaction of students with the situations they encountered at their school. Besides, few mid-leveled problems of mental health and psychosocial have been found in a third of forty student respondents. Also, they have admitted to feel discomfort and dissatisfaction with their respective schools' social environment. Accordingly, these discomfort and dissatisfaction over their learning process at schools have made students stuffed and fed up to study. These situations have hindered the students to undergo flow over their learning process.

Flow should it be roughly defined as "*mengalir*". The interpretation of flow could be depicted as a condition that students experience whilst learning and doing some activities in which they feel absorbed, engrossed, and content to learn. These conditions can be induced from their inner and outer forces. In fact, this force can be in shapes of internal and external motivations (Seligman, 2002). Etymologically, flow can be illustrated in a metaphor of flowing water taking students immersed in their learning activities. This condition can be marked had students' concentration and focus build up as well as they feel happy with what they do (Csikszentmihalyi, 1990).

Flow as a holistic sensation is a condition in which students can do activities at their bests (Csikszentmihalyi, 1994). Totality (doing at their best attitude) can be grasped as an experience where students are in sync with their learning activities. Bakker (2008) stated flow as a top experience possessed several traits such absorption, work enjoyment, and intrinsic work motivation.

Flow is similar to being in the zone which is an experience to make students go through time distortion (Csikszentmihalyi, 1997). In addition, flow is a psychological activity that everyone can undergo in various activities including learning for students. In brief, flow signified a balance condition between challenges in the activities and the abilities of students to do those activities (Csikszentmihalyi, 1990).

Flow refers to a state where students are on high concentration, attention, and focus upon their activities, accordingly, they feel excited, satisfied with what they run (Whalen, 1999). Furthermore, flow was a balance condition between the number of

challenges in some activities and individual activities to do those activities (Csikszentmihalyi, 1990; Ellis, et al; Bakker, 2008).

With regards to Elias et al, (2010), Self-determination has significant relation with flow. Students who think for long-term and short-term objectives in education can be engrossed more with their learning process. Intensive involvement in their learning process could bring about flow.

Self-determination has some strong influences on flow, which can be found on a study carried out by (Moreno et.al, 2010). Another self-determination-and-flow-related study could also be found in the studies of (Schuler et.al, 2010). The direct inducement of self-determination to flow was also implicitly stated in the study of (Bakker et.al, 2011). Some factors on self-determination having some influences on flow can also be traced in the studies of (Habe & Tement, (2016). Some factors in self-determinations can also be predictors on flow creation in one self (Waterman et al 2003; Schwartz & Waterman, 2006). Students who are highly determined inclined to undergo flow at the moment they learn some skills or learn subjects at school.

Competence is depicted as a group of knowledge, skill, attitude, and competence in learning which effects on role, deed, achievement, as well as students' performance. In addition, competence is able to be assessed using general standard and can be built up through education and training. In fact, competence is fundamental characteristic of student interrelating with effective competence criterion and/or students' best performance in learning (Spencer & Spencer, 1993).

Competence can as well be known as a minimum ability covering knowledge, skill, and performance that must be attained, comprehended, and mastered done by students in every of their school subject, (1993). Emotional competence and involvement at school have positive roles on students' academic achievements (Dharmayana, et.al (2012). Emotional competence has a relation with the engagement of students in learning. Active engagements of students in learning can make students undergo flow whilst learning.

Competence can be a substantial fundament on students' flow as with competence students can go through any learning challenges (Santoso, 2012). Competence can be from students' knowledge. Students' knowledge in various subjects can help out them get through any challenges. These challenges were the prerequisites to trigger flow in every activity (Csikszentmihalyi, (1990).

Competence affecting flow can be checked on the study of (Cutre et.al, 2009). Students with learning competences tend to boost their self-confidence. That self-confidence makes them able to go through any challenges during their learning process. Every completed challenge is able to ignite flows in students.

Interest was one of the factors related to the activities, including students' learning activities (Csikszentmihalyi, 1990). Interest has made students fascinated with being involved in challenging activities. These challenging activities on par with their individual abilities triggered ones to undergo flow (Shernoff & Csikszentmihalyi, (2009). Interest could set one off to attain their objective. A well-defined objective in every activity is a prerequisite to experience flow (Csikszentmihalyi, 2003).

Interest was one of the predominant prerequisites for one to experience flow whilst running on various activities (Bakker et.al, 2011). Without learning interest, students would not be motivated to learn. Low learning interest causes them to easily feel bored to learn. Accordingly, learning bore caused by low interest clogs students to undergo flow.

The proposed problem raised in this research is how big the causal relations between self-determination, competence, and interest on flow is.

2. Research Method

The research subjects were high school students from six public high schools in East Lombok Regency. This research took in 275 research subjects with 135 female students and 140 male students. Besides, scales of self-determination (11 items), interest (10 items), competence (19 items), and flow (21 items) were used as instruments in this research.

The data were collected using random sampling technique in means of giving equal chance to all research population. In addition, this research used ex post facto design subsuming two parts: co-relational study and criterion-group study in regards with the objective of the study to identify the influence of one variable to another variable. Also, the data were analyzed using path analysis.

3. Results

Table 1: Linearity Test Result

Influence	F count	F table	p-value	Information
X1 → Z	42,406	3,876	0,000	Linier
X2 → Z	11,138	3,876	0,001	Linier
X1 → Y	33,093	3,876	0,000	Linier
X2 → Y	55,581	3,876	0,000	Linier
Z → Y	18,497	3,876	0,000	Linier

Information: X1 = Self-Determination, X2 = Interest, Z = Competence, Y = Flow

Linearity test has brought about the result that each p-value had smaller relation than alpha 5% (0.050). It, hence, was concluded that there was linear relation between each variable. In short, linearity assumption was fulfilled already.

Table 2: Influence in Each Variable

Influence	Path Coefficient	T-count	p-value	R ²
X1 → Z	0,338	5,709	0,000	11,2%
X2 → Z	0,092	1,547	0,123	3,0%
Total				14,2%
X1 → Y	0,181	3,030	0,003	6,5%
X2 → Y	0,331	5,844	0,000	11,8%
Z → Y	0,120	2,084	0,038	4,3%
Total				22,6%

Information: X1 = Self-Determination, X2 = Interest, Z = Competence, Y = Flow

Path coefficient formed between self-determination and interest to competence was: $Z = 0,338 X1 + 0,092 X2$ path coefficient of self-determination to competence was 0.338. The contribution of self-determination on competence was 11.2% signifying the change on 43.5% induced by the change on self-determination. The path coefficient of interest and competence was 0.092. Interest contribution on competence was 3.0% signifying change of 3.0% on competence induced by change of interest.

Path coefficient of self-determination, interest, and competence on flow was: $Y = 0,181 X1 + 0,331 X2 + 0,120 Z$. Path coefficient of self-determination on flow was 0.181. In addition, self-determination contribution on flow was 6.5% caused by self-determination. Interest coefficient on flow was 0.331 and interest contribution on flow was 11.8% meaning 11.8 change on flow was induced by interest. Path coefficient of competence on flow was 0.120 signifying 1 unit of competence bringing about 0.120 time of increment on flow. Moreover, 4.3% contribution on flow signified on 4.3% change on flow induced by competence change.

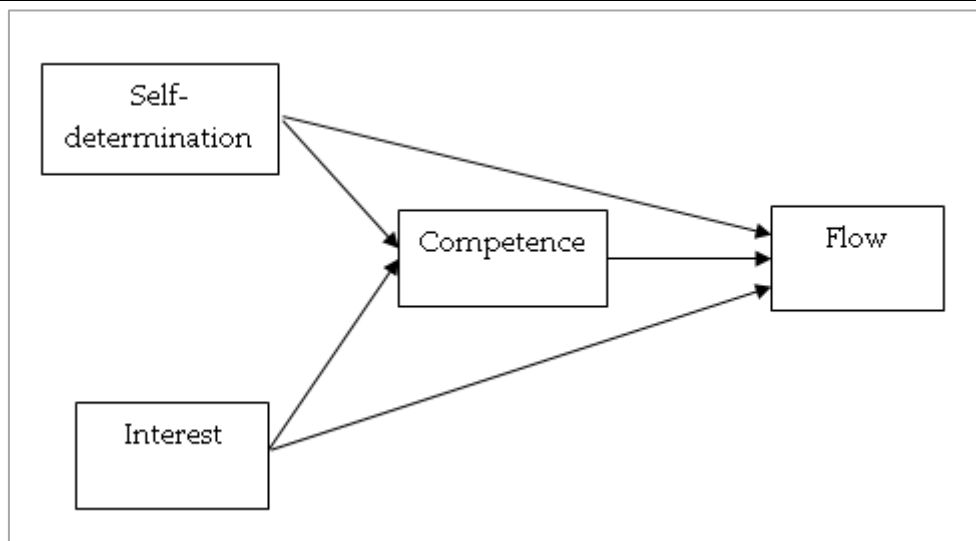


Figure 1: Path Diagram Flow

Table 3: Direct Influence of Self-Determination on Flow

Influence	Path Coefficient	Error Standard	t-count	p-value
X1 → Y	0,181	0,094	3,030	0,003

Information: X1= Self-Determination, Y=Flow

The test resulted in t-count (3.030) was bigger than t-table (1.969) or p-value (0.003) smaller than alpha 5% (0.050). It, thus, was inferred that there was positive and significant competence on flow. The higher the competence, the more increase on flow. In the other way around, the lower competence, the more decrease on flow.

Table 4: Direct Influence of Interest on Flow

Influence	Path Coefficient	Error Standard	t-count	p-value
X2 → Y	0,331	0,101	5,844	0,000

Information: X2 = Interest, Y = Flow

The result showed that t-count (5.844) was bigger than t-table (1.969) or p-value (0.000) smaller than alpha 5% (0.050). Hence, it could be inferred that there was a positive and significant influence of interest on flow. The higher students interest, the more flow the students had. Vice versa, the lower the interest, the flow of the students would fall.

Table 5: Competence Influence on Flow

Influence	Path Coefficient	Error Standard	t-count	p-value
Z → Y	0,120	0,081	2,084	0,038

Information: Z = Competence, Y = Flow

The result reported that t-count (2.084) was bigger than t-table (1.969) or p-value (0.038) smaller than alpha 5% (0.050). Thereby, it was inferred that there was a positive and significant competence on flow. The higher the competence, the flow would rise. Otherwise, the lower the competence, the flow would plummet.

4. Discussion

The result brought about the findings of that self-determination, interest, and competence had positive and significant influences on flow. The three variables contributed dissimilarly on flow. Interest affected on higher flow in comparison to the rest variable. The rise on students' learning interest brought about flow to students while learning at the schools.

Self-determination' small contribution on flow which was 6.5% signifying the need to build up more learning self-determination of high school students in East Lombok. Teachers were suggested to give motivation and encourage them during learning activities. Students with high learning motivations possessed learning self-determination (Elias et.al, (2010). Students with high self-determination were engaged more with the learning process, having better academic performance, and having more expectation for their future (Elias et.al, 2010).

Students with high self-determination were focused more on their skills mastery, activities, and they tend to focus more on their learning (Santrock, 2004). Self-determination made students bends over their backwards to study and comprehend their subjects. Their learning tenacity held the students not to easily give in in facing every learning challenge. The ability of student to go through every challenge backed up with fine skills to overcome those challenges triggered students to undergo flow.

Generally, students with flow preferred to challenge learning activities and love picking up higher-leveled challenges in comparison to students who had yet to undergo flow (Shernoff et al, 2003). Self-determination could set the students off to be actively engrossed with every learning activity at the classroom. Learning called for determination in comprehending subjects. Students with high determination were geared more to be up against any learning process challenges. Also, when students' self-determination raised in consequence students would undergo flow. Moreover, when students underwent learning flow, they, accordingly, would be more focused and they would be engrossed more in learning activities (Csikszentmihaly, et.al, 2005).

Interest significantly and positively affected flow. Direct contribution of interest on flow was 11.8%. It showed that interest carried direct big contribution on flow in comparison to the other variables. Thereupon, building up students' interest to study

was considerably necessary for teachers. One of the suggested ways was to design the learning environment at school.

Designing learning environment to be more complex could reinforce students' learning interest, focus, satisfaction, concentration, self-esteem, as well as intrinsic motivation (Shernoff et. al, 2016). Complex learning environment could surely build up students' learning interest. Besides, the rise on learning interest would trigger students to be engrossed more on their learning process. Their intensive engrossment in learning process would naturally put students to undergo flow,

Competence also had positive and significant contribution on flow. As for the small contribution of competence on flow which was 4.3%, it signified low competences on various subjects. The finding of low competence supported the finding of (Rasto, 2011) arguing that students' low competences on various subjects like Biology, Chemistry, Indonesian, Geography, and Math could be built up through reinforcing teachers' competences. In fact, teachers with high competences could surely put up students' competences.

Teachers' competences could comprise of knowledge, attitude, and mastered skills which could support their teaching performance. Competences covered: personal competence, professional competence, social competence, and intellectual competence (Surya, 2004). Personal competence is the extent of teachers' attitude quality in their interactions with students. Professional competence is the extent as to how teachers can work in assent with the standard of teacher profession. Intellectual profession circles on teachers' comprehension and possessed knowledge on the disciplines they focus.

Competence was a minimum ability covering: must-be-attained skills and attitude that teachers were to work on while teaching. Unfortunately, teachers in NTB were still on low competence level. It was reflected by the data on the number of teacher retaking teacher competence test (UKG), 1633 participants in 2017 (www.SuaraNTB.com). That high number of teachers in NTB retaking teacher competence test signified poor teachers' competence in teaching. Poor teaching competence surely affected learning process. One of the impacts was the students could not undergo flow.

The contribution of the entire three independent variables on flow was 22.6%, the contribution was considered small. Low contributions of each independent variables showed that there were still other variables which could affect students. Low contributions on the three variables could be translated as of that the high school students in East Lombok had low self-determination, low competence, and low interest in learning resulting in the absence of flow whilst learning. To make students undergo learning flow, teachers were to run steps that could enhance self-determination, interest, and student's competence. Teachers were surely unable to execute it single-

handedly, there ought to be more teamwork with school' principle and other school' stakeholders on learning process matters in means of providing and facilitating students to experience flow at schools.

5. Conclusion

The conclusion of this research was self-determination, competence, and interest had positive and significant influences on flow. One of the result implications was building teacher competence. Competent teachers could build up students' interest, self-determination, competence, and flow. In conclusion, further researchers were better off to collect the data using self-report to investigate flow in view of its better precision in reporting flow exposure that students undergo. Flow was easy to be forsaken and overlooked by the researchers had flow had occurred for long time (Lee & Chen, 2010)

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