INNOVATION RESEARCH
in the Era of MBKM

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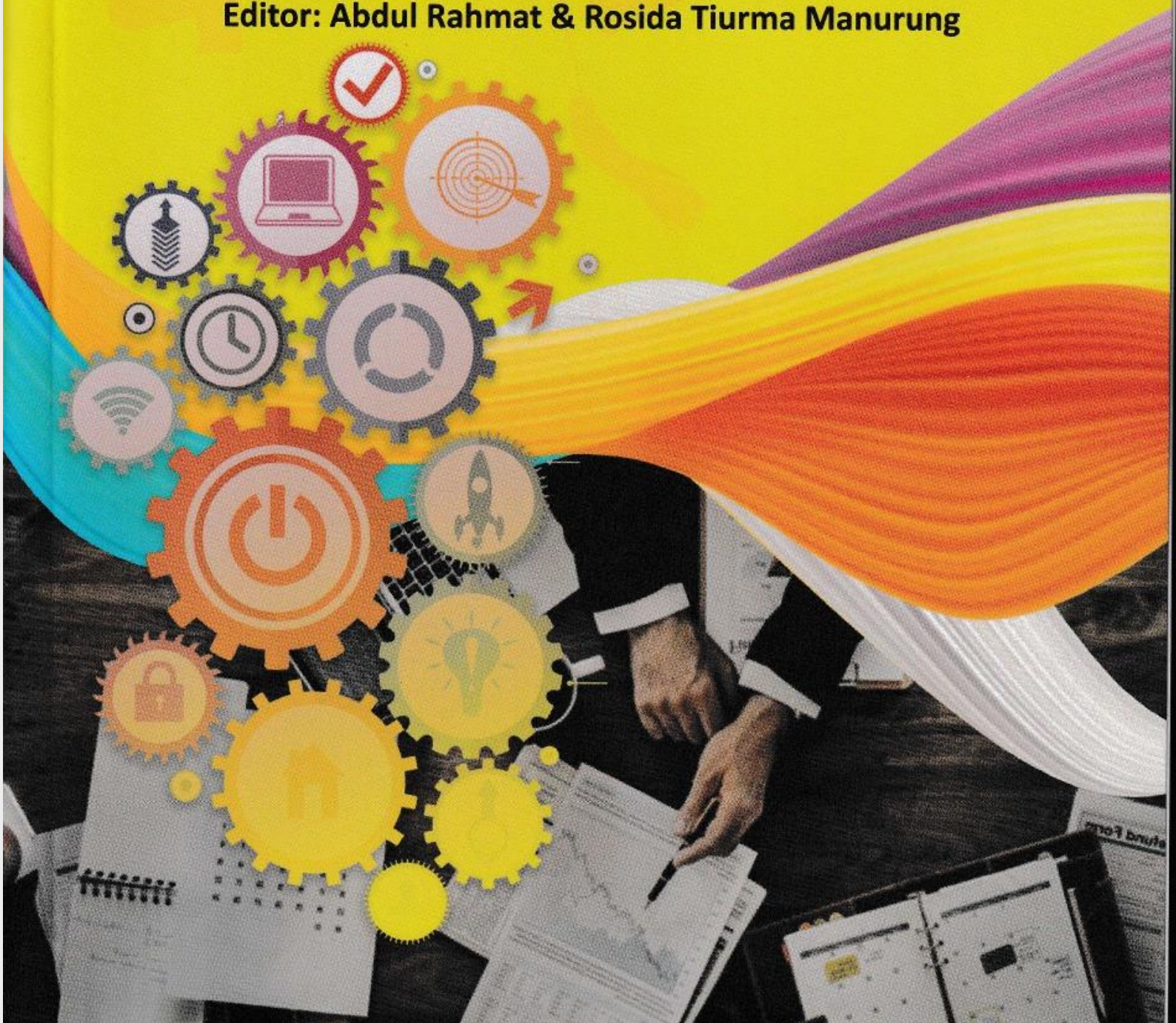
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Abdul Rahmat
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FOREWORD

Thanks to God Almighty for all that is visible and hidden, this book can be done, even in a very simple measure. Research innovation is a new breakthrough that is based on research results, scientific findings, research outputs that can provide benefits in human life. Thus, research and science are needed in the development of innovation. Without research and scientific development, innovation will not work as it should. In fact, it could even be misdirected, did not last long, and became just wishful thinking. Research-based innovation is very useful in all areas of life. Research that is focused and leads to innovation is very much needed. Research innovation is a research, development, or engineering activity that aims to develop the practical application of new scientific values and contexts, or new ways to apply existing science and technology into a process. Every innovation needs to be communicated including in this book chapter so that the public understands innovative thinking. We are aware that this book is full of shortcomings, therefore we really hope for constructive criticism and suggestions for the perfection of this book. Finally, for all the blessings of God Almighty, hopefully it can be useful for the treasures of knowledge on this earth. Amen!

Jakarta, August 2021

Editing Team

CONTENTS

APPLICATION OF SELF DETERMINATION THEORY: DEVELOPING STUDENT ENGAGEMENT IN MERDEKA BELAJAR KAMPUS MERDEKA

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Introduction

The journey of education in Indonesia does not escape the influence of changing times which causes a shift in national goals. Globalization that has hit the whole world in the 21st century has caused the goal of national education to no longer only educate the nation and liberate humans but shifts towards education as a commodity because it places more emphasis on improving science, technology and art (IPTEKS). In early 2020, the Ministry of Education and Culture issued the Independent Learning-Independent Campus, Merdeka Belajar Kampus Merdeka (MBKM) policy. The MBKM policy generally gives college students the right to study for undergraduate and applied undergraduate programs for three (3) semesters outside the study program. In practice, college students can voluntarily take learning outside the study program for 1 (one) semester or equivalent to 20 credits; and a maximum of 2 (two) semesters or equivalent to 40 (forty) credits of studying in the same study program outside of tertiary institutions, learning in different study programs at different universities; and/or learning outside the university. Calculation of semester credit units (credits) for learning activities outside the campus is calculated based on the number of hours of activity. One (1) credit is equivalent to 170 minutes per week per semester.

The Independent Learning Policy of the Independent Campus increasingly requires college students not only to "accept" what is conveyed by the lecturer, but also college students are required to be more active, explore their own abilities related to learning activities, be more active in looking for things related to the learning material through various sources. The MBKM policy makes college students expected to be more active in participating in various forms of learning activities, independently or taking the initiative to seek various sources to increase their knowledge and be creative in an effort to understand a material. This refers to a psychological concept, namely the attachment of students to their learning activities. In psychology, attachment to learning activities is known as 'student engagement', 'academic engagement', 'school engagement' or also 'engagement' (Skinner and Belmont, 1993). What is meant by engagement in learning activities is if students show continuous participation accompanied by initiative, enthusiasm and positive emotions such as feeling like and comfortable in learning activities (Skinner and Belmont, 1993).

The importance of engagement in learning activities has been recognized by psychologists and educational practitioners. Various studies prove that a person's achievement will increase if students have engagement with their learning activities (Skinner and Pitzer, 2015). The concept of engagement is a relatively new concept in the fields of education and psychology (Appleton, Christenson and Furlong, 2008), and until now there is still limited research that explains the dynamics of engagement formation.

This paper refers to the theory of motivation, namely Self Determination Theory (SDT) (Ryan & Deci 2000). In various psychological concepts, motivation is considered as something related to the psychological processes that underlie energy, goals, and the extent to which a person is involved with the activities he does (Stone et al., 2008). Self Determination Theory is a psychological concept that discusses how a person can be able to perform an action on the basis of his own will, perform a behaviour that is determined by himself, make choices and decisions that are based on intentional and carried out with awareness. SDT can be applied in various areas of one's life, one of which is the area of education. Appleton et al., (2008) suggest that SDT provides an important and comprehensive theoretical framework that can help researchers to clarify the function and construct of engagement.

Discussion

1. Self Determination Theory (SDT)

Self-determination theory is a macro theory of motivation and human personality which refers to the understanding that individuals have the possibility to continue to grow and that each individual has basic psychological needs that he is born with (Niemiec, 2010; Ryan & Deci, 2000). This theory provides an understanding of individuals who can have motivation within themselves, so they can choose an option without being influenced by conditions from outside the individual (Ryan & Deci, 2000).

SDT puts forward a proposition, there is something within oneself which, if fulfilled or satisfied by the interpersonal and cultural context, will facilitate individual growth, integrity and well-being. Conversely, if these psychological needs are not met, it will cause serious psychological

problems in a person (Ryan & Deci, 2000; Vallerand et al., 2008). SDT theory states that something in the self that must be satisfied for cognitive growth and development is a basic psychological need. From the SDT point of view, basic psychological needs are universal and across developmental stages. SDT consists of three psychological needs, the three needs are autonomy, competence and relatedness.

2. Basic Psychological Needs Satisfaction

Based on SDT, human behaviour is influenced by individual interactions with social contexts. Social contexts in different environments such as family, school, work can hinder or provide opportunities for individuals to fulfil their basic psychological needs to feel autonomous, competent, and related to others (Ryan & Deci, 2000). Deci and Ryan (2000) stated that basically every individual will carry out activities, achieve goals, and establish relationships with other people who can support the fulfilment of their basic psychological needs. In other words, everyone will basically look for experiences that will be able to meet the needs of competence, autonomy and relatedness from their environment. Based on the experience gained from the environment, individuals will assess whether the basic psychological needs in themselves are met or not (Connell & Wellborn, 1991). From these experiences, a person will cumulatively build a view of themselves (Connell & Wellborn, 1991). This view or assumption of self is not a perception of self that immediately disappears, but a long-lasting belief that forms the real reality of a person and guides one's actions (Connell & Wellborn, 1991; Pitzer & Skinner, 2016; Ryan & Deci, 2017). When individuals have persepstion that their basic psychological needs are met, the individual will have feelings:

A. Sense of Competence

Sense of competence will develop a feeling that they are able to organize and perform an action, otherwise not having a sense of competence will threaten the feeling that the individual is able to take an action (Connell & Wellborn, 1991). Individuals who are competent will know what to do, and how they should do something, they feel confident that they will be able to do and get things done. They feel they are capable and can be expected to succeed. Individuals who have the belief that they are competent, believe that they have an effective strategy in responding to the environment (Skinner et al., 1990).

To develop competence, one must truly feel that they are the ones initiating their actions, they must feel that their success is due to the activities they organize themselves (Skinner et al., 1990). In order for a person to truly develop his sense of competence, a person must perceive his or her actions as something that he or she organizes and initiates, meaning that the person must feel ownership of the activities in which they experience success (Ryan & Deci, 2000).

B. Sense of Relatedness

Sense of relatedness is formed when individuals have experiences that include two things, namely experiencing other people being responsive and sensitive to themselves and at the same time being able to be responsive and sensitive to others (Connell & Wellborn, 1991). Relatedness can be experienced either in the form of paying attention to others or being noticed by others.

Individuals are said to have a sense of relatedness if they feel connected and involved with others and have a sense of belonging (Baumeister & Leary, 1995; Ryan & Deci, 2000). With a sense of relatedness, individuals often behave in ways that aim to make them accepted, approved and can become members / part of the group (Baumeister & Leary, 1995). The need for relatedness or the need to be part of a group, becomes very important to understand the tendency of individuals to internalize the values and behaviours of their culture (Ryan & Deci, 2000). With this sense of relatedness, someone will be interested in what other people believe and what other people do, what other people expect from them, so that this will put the individual in a position to behave in ways that ensure they are accepted and involved. A person becomes ready to adopt external views to become part of their own psychic point of view.

C. Sense of Autonomy

Sense of autonomy refers to the feeling of being willing and willing in relation to performing a behaviour (Deci et al., 1989; Deci & Ryan, 1994; Ryan & Deci, 2017). Sense of autonomy describes individuals who experience self-endorsement and ownership of their actions, meaning that there is a need that they are the ones who ratify or determine their actions. Autonomy is technically the need to self-regulate in action. The opposite of autonomy is heteronomy, meaning when a person acts based on or controlled by internal or external pressures.

3. The Role of the Environment in Basic Psychological Needs Satisfaction

According to the Self-Determination Theory, there are three basic psychological needs that exist in every human being. These needs are the need for acceptance (need for relatedness), the need for competence (need for competence) and the need for autonomy (need for autonomy). For everyone, it is important to feel liked or accepted by others, to feel capable and to feel free to express themselves.

The social context plays a role in meeting or not meeting these three basic psychological needs. The form of the role of social context in fulfilling basic psychological needs in humans can be in the form of autonomy support, structure and involvement.

Skinner, Johnson and Snyder (2005) compiled interpersonal conditions that are considered to represent the definition of autonomy support, structure and involvement:

Table 1. The Role of the Environment in Basic Psychological Needs Satisfaction

No.	*Autonomy Support*	*Involvement*	*Sturcture*
1	Gives freedom of self-expression and action	Expresses affection	Provides information, guidance, direction when needed
2	Encourage problem solving and independent decision making	Show genuine concern	Rules are clearly communicated and monitored in terms of implementation
3	Sincerely respects opinion	Shows pleasure when doing activities together	Shows pleasure when doing activities together
4	-	-	Provides moderate and challenging targets

4. Engagement

Skinner in 1993 described engagement as a continuous behaviour of students in learning activities, which is also accompanied by positive emotions towards learning activities. Skinner & Pitzer (2012a) divide engagement into 2 aspects, namely:

1) Behavioural engagement is described by the initiation of an action (action initiation), effort (effort), persistence, intensity, attention, absorption and involvement in learning activities.

2) Emotional engagement is described by enthusiasm, interest, enjoyment, satisfaction, pride, vitality and zest in dealing with learning activities.

Based on its components, engagement is a concept that can describe what students think and feel when facing activities in class, and also what they do in class. Therefore, engagement is an integration of emotional and behavioural components (Jimerson et al., 2014).

5. Basic Need Satisfaction and Engagement for College Students in Participating in MBKM Activities

According to Self Determination Theory, when college students have the belief that they have autonomy over their actions, it means that college students have a feeling that they are active agents of their actions. This feeling makes college students more responsible for their actions. Especially if college students are accustomed to obtaining rational explanations from the environment when conveying something, it also makes college students understand the importance of learning activities for themselves. So, this will encourage students to participate in learning activities, have the initiative in do their assignments in class (Reeve & Jang, 2006). It also forms positive feelings towards learning activities, for example being interested in a learning activity, being more enthusiastic about mastering a material, feeling not forced to participate in learning activities.

When college students have the belief that they are accepted and become part of a group, this feeling will encourage college students to be free and safe in exploring an activity, so that emotionally students do not feel anxious and feel happy when carrying out classroom learning activities. They are not anxious to start something new, interact in a new environment such as when they participate in MBKM activities. They will also generally be encouraged to adapt to the behavior expected by their environment, such as participating in learning activities (Ryan & Deci, 2000).

When college students have the belief that they will be able to achieve the desired results in their activities following MBKM, it means having a sense of competence. In his article Connel and Welborn, 1991; Skinner, 2008, stated that this sense of competence is the same as the concept of self-efficacy, where these two concepts both describe how a person's beliefs about his ability to succeed in achieving predetermined goals. If college students have the belief that they are able to complete tasks and activities in MBKM and have the belief that they know how to complete a task/activity and can achieve what is expected of them, then college students will be intrinsically motivated in themselves. This intrinsic motivation will provide energy for students to participate and be diligent when working on assignments related to lecture activities and MBKM and students will feel challenged to master things related to their lecture activities or termed engaging with activities in class (Baumeister & Leary, 1995). This intrinsic motivation also creates positive feelings, does not feel forced to carry out lecture activities, such as feelings of enjoyment, pleasure and enthusiasm in learning

Conclusion

Basic psychological needs satisfaction is the key to the psychological process in shaping college student engagement in their MBKM activities. The fulfilment of basic psychological needs in students is marked by the view that they are not forced to do something (sense of autonomy), are able to do something (sense of competence and are valued (sense of relatedness). These three views of self will form intrinsic motivation in students, which is manifested in the form of engagement or an effort to achieve success in lectures, for example by doing the best possible assignments, participating in class discussions, listening to lecturers' explanations in class carefully with a feeling of pleasure and not being forced. The environment has an important role in meeting needs basic psychological needs in a person, because no one can meet the basic psychological needs in himself.

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