The Benefits of Implementation of an Instructional Strategy Model Based on the Brain's Natural Learning Systems in Inclusive Classrooms in Higher Education

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Abstract—Instructional strategy in inclusive classrooms in higher education has not yet accommodated the needs and competencies. It must be achieved by students who have various characteristics, learning styles, and different obstacles. This research aims to explore the perceptions of student- teachers toward implementing an instructional strategy model based on the brain's natural learning system, particularly its benefits for all students in inclusive classrooms in higher education. Data were collected through an open observation and interviews on students to determine the benefits of an instructional strategy model based on the natural learning system of the brain. The data were analyzed using qualitative data analysis. The research produced four major themes consisting of self-regulation, peer relationship, self-direction, and self-concept. Instructional strategies based on the brain's natural learning system are very suitable to be implemented in inclusive classrooms in higher education. The findings have implications for teachers not only practices employing inclusive pedagogy in higher education institutions but also for teachers, especially in the design of instruction in inclusive classrooms for all levels of education.

Keywords—Brain's natural learning system, instructional strategy, inclusive classroom, higher education.

1   Introduction

The implementation of instruction in inclusive classrooms in higher education does not only require the completeness of lecturers to complete all instructional materials at the end of the semester. The lecturers must also be able to create learning by the characteristics of students, learning styles, strengths, and weaknesses of each student [3]. It is intended that lecturers can accommodate all students' needs according to the learning goals and objectives of inclusive education set by the higher education [1][2]. The diverse characteristics of students in inclusive classrooms provide an overview of the challenges students will face as graduates who are ready to use their knowledge. They will meet all the pressures of work, the style of leading of superiors in a job, as well as individual differences that can come from friends or colleagues in one's position. No exception for special needs students (SNSs) who also play a role in a workplace or community. Lecturers must be able to understand the characteristics of SNSs well, strengths, learning styles, as well as weaknesses and obstacles they have, so that suitable learning methods in inclusive classrooms can be appropriately applied [3][4][5].

Friendly and active learning for SNSs in higher education is their right. It must be implemented in education to be able to ensure that all learners develop all of their potentials optimally in a comfortable and open environment. This thing is indicated by the involvement and participation of all parties in learning. This participation is not only intended for students when studying, but also learning belongs to educators or lecturers who are required to be able to create fun and active learning that refers to the uniqueness of all students [6][7][8].

However, the fact is that instruction in the classroom, uniquely inclusive classrooms where there are SNSs and regular students (RSs), still does not show learning that promotes justice, effectiveness, and comfort for all students. Preliminary studies conducted by researchers on inclusive classrooms in higher education show there are several issues related to the quality of learning in inclusive classrooms. Some of the problems that occur are:

1) Lecturers do not understand the characteristics of SNSs, so they are lacking in developing all academic and non-academic aspects that are very influential to the students' futures [9].
2) The learning approach or model used by lecturers is not friendly, not centered on students and tends to generalize all the characteristics of students [10].
3) Teaching materials and instructional media that are used are not friendly to learning or less responsive to the needs and abilities of all students.
4) Lack of attention and particular time for SNSs in understanding lecture material, so learning outcomes are not in line with learning targets.
5) The assessment process for SNSs is likened to RSs so that there is a tendency labeling negative for SNSs; Various problems that arise should be understood by all lecturers so that the needs and characteristics of students can achieve instructional objectives.

The instructional strategy implemented by the lecturer is still centered on the lecturer as a central figure. Students are only listeners and learning objects. The lecturer does not position himself as a facilitator, or mediator in a series of instructional activities. Lecturers do not create involvement or active learning between RSs and SNSs. This condition makes learning monotonous, unfriendly to SNSs, and the quality of learning does not become better because it does not accommodate all the needs [11][12].

These conditions result in a learning atmosphere that is not friendly and does not provide justice for all students, especially SNSs. Instructional objectives are challenging to be achieved if these conditions persist in inclusive classrooms. The long-term goal of education for all students is to prepare them for when they have to work after graduation, and so far, this has yet to be realized and does not provide adequate competence when having to work in a company or other workplaces [13][14]. For this reason, lecturers must be able to create an instructional strategy model that can improve academic, social, and emotional aspects for SNSs in an inclusive class, by the characteristics of all students. The instructional strategy model that involves all class communities and can provide benefits in learning is an instructional strategy model that can be used by lecturers so that all the needs of all students are met [15][16][17]. One learning model that can be designed by lecturers is an instructional strategy model based on the brain's natural learning system. The brain's natural learning system is learning based on five learning systems: emotional learning, social learning, cognitive learning, physical, and reflective learning systems [19].

This research explores the benefits of implementing an instructional strategy model based on the brain's natural learning system that is carried out in inclusive classrooms in higher education.

2 Literature Review

2.1 The brain's natural learning systems

The brain's natural learning system is learning based on five learning systems: emotional learning, social learning, cognitive learning, physical, and reflective learning (see Figure 1).
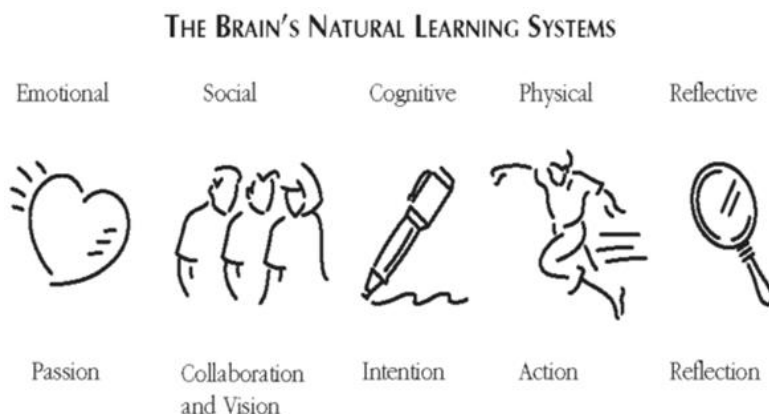
THE BRAIN'S NATURAL LEARNING SYSTEMS

Emotional	Social	Cognitive	Physical	Reflective
Passion	Collaboration and Vision	Intention	Action	Reflection

Fig. 1. The Brain's natural learning systems [19]

The emotional learning system is a learning system that places teachers as mentors, which creates a conducive classroom climate, making teacher-student and student-student relationships a warm relationship. Emotional systems provide opportunities for students to grow their talents and develop positive behavior towards the lessons learned [20]. The teacher functions to help foster a desire to learn and have a strong desire to be the best in the future by carrying out challenging learning that is relevant to the knowledge students have.

Social learning systems places students as part of groups with a focus on interaction with others by collaborating in a learning community and encourages the students to work together in making decisions and solving problems that can foster creativity students and teachers in learning. The teacher works with others to create environments that support individual and collaborative learning, encouraging positive social interaction, active engagement in learning, and self-motivation [21][22]. The cognitive learning system places the teacher in the role of facilitator. In contrast, students are placed as problem-solvers and decision-makers through providing learning space in a position that offers opportunities for students to explore knowledge, problem-solving, and decision making based on the instructional process that has been done. Vygotsky states that cognitive development is the result of social development through interaction with other people and the environment [23]. Learning designed in the zone of proximal development allows students to learn new knowledge within their abilities only with the help of teachers or peers. The teacher facilitates interaction through collaboration, mediation, and scaffolding, to help students build an understanding of skills that are appropriate to their development and abilities. The impact is students will be able to internalize learning, solve problems together as a team decision in a positive learning environment.

The physical learning system involves all class members in physical activity, psychomotor, and tactile on a topic being studied. Gardner's theory has in common with the physical learning system that is kinesthetic/bodily, which emphasizes the ability to use limbs and body movements to express ideas or thoughts [24]. Besides that, a skill uses hands to change or create something [25][26]. Physical activity in the classroom,

such as performing certain movements besides increasing on social development, students can improve their performance in all school subjects [27], or correlated with academic results [28]. The reflective learning system places the teacher to understand students' learning styles, strengths, and weaknesses after going through the learning process. For students, this learning system provides a picture of what must be improved from a lesson and aids in measuring abilities and fostering strengths into talents that can be developed in the future [29]. The reflective development system describes all development systems that can show self-concept. Susan Harter's work has identified eight distinct aspects of the adolescent concept: scholastic competence, job competence, athletic competence, physical appearance, social acceptance, close friendships, romantic appeal, and conduct [30].

2.2 Design of instructional strategies based on the brain's natural learning systems in inclusive classrooms in higher education

The instructional strategy model based on the brain's natural learning system can ensure that all students are fully involved in learning. They gained the benefit from instructional activities carried out in inclusive classrooms [31][32]. Instruction in inclusive classrooms for SNSs in higher education is an opportunity to develop the quality of life in the future [33][34]. Learning must be directed to achieve competencies that can support increased benefits for SNSs when they have to employment in a particular agency or company. In learning, SNSs must be able to position themselves in the community environment, which is the most significant part of the consequences of education taken. Learning must be able to create confidence, high motivation to achieve educational goals, encourage communication, or interacting well with others, according to the needs and characteristics of SNSs [35][36]. Learning must be directed so that SNSs can collaborate in teamwork that promotes differences, respect for opinions, and mutual respect for each decision in a work team between student groups. Direct practices in learning that reflect appreciation and provide the best abilities of all students, including SNSs, will produce maximum competence for SNSs in readiness to enter the world of work and society. Figure 2 is the design of instructional strategies based on the brain's natural learning systems in inclusive classrooms in higher education:
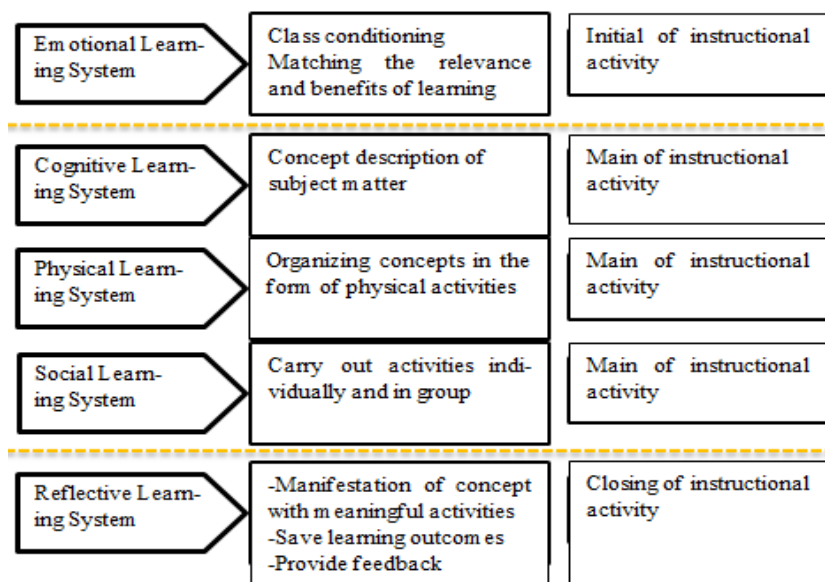
Emotional Learning System	Class conditioning Matching the relevance and benefits of learning	Initial of instructional activity
Cognitive Learning System	Concept description of subject matter	Main of instructional activity
Physical Learning System	Organizing concepts in the form of physical activities	Main of instructional activity
Social Learning System	Carry out activities individually and in group	Main of instructional activity
Reflective Learning System	-Manifestation of concept with meaningful activities -Save learning outcomes -Provide feedback	Closing of instructional activity

Fig. 2. The main design of the Instructional strategy model based on the brain's natural learning systems (source from [19] developed by Rasmitadila)

The linkage of the five natural brain learning systems for all students will align instructional objectives according to students' needs. It also offers the gaining of knowledge and experience through collaboration, fostering action and active involvement of all students, and understanding the strengths, weaknesses, and progress that have been achieved.

3 Methodology

This research uses a qualitative research approach to understand opinions and observations of learning outcomes for students about the implementation of an instructional strategy model based on the brain's natural learning system in inclusive classrooms in higher education. Qualitative research is used to explore people's opinions or thoughts in understanding research questions in-depth on the topic being studied [37].

3.1 Participants

Participants involved in this study were from an inclusive classroom at one of the Private Universities in West Java, Indonesia. The inclusive classroom was a class on inclusive education courses in elementary schools (PISD). The number of students in the inclusive classroom chosen was twenty-four students, with two SNSs and as many as twenty-two students that were RSs. The researcher chose this class because there were some SNSs. SNSs consist of one person with the category of slow learning, and one with a limb disorder. Characteristics of students who are slow learners have low

learning motivation, and low academic motivation and focus and attention in learning involvement is also low. The students with limb disorders have limitations in moving the right hand, so they have limitations in writing activities and activities related to their hands. Class selection with PISD course considers that with SNSs, researchers will be able to analyze the strengths and weaknesses of the instructional strategies. Beside used so that improvements in the framework of perfecting the instructional strategy based on the brain's natural learning system can be done through the opinions of RSs and SNSs. In addition to classroom observation, another critical consideration is that through this instructional strategy, it is hoped that SNSs can improve their academic, social and emotional abilities so that they can be used in the future. Lecturers involved in learning were lecturers who have competence in teaching in inclusive classrooms and had taught for nine years. In the implementation of learning using instructional strategies based on the brain's natural learning system, lecturers who teach do not provide training in advance. Still, the lecturer introduces and explains the strategy designed to all students so that they know the stages of the instructional strategy that will be implemented in the classroom.

3.2 Data collection

Information on research data was generated from several data sources through observations and interviews. Observations were made on the instructional process using the instructional strategy model based on the brain's natural learning system from the beginning of instruction to the end of instruction. Observations were made to document the instructional process between lecturers and students, as well as students and students. The observation guide instrument related to instruction using an instructional strategy model based on the brain's natural learning system. The observation was conducted by recording all instructional activities using a recording device (audiovisual or audio). The recording was done from the beginning to the end of instruction, which had been designed by the lecturer. Results of observations, in addition to the results of the checklist produced, consisted of brief observations and observations made in detail that produced field notes in the form of all activities, lecturers 'and students' remarks that occurred during instruction.

Interviews were conducted face-to-face between researchers and informants. The informants in this study were students who were carrying out learning using the brain's natural instructional strategy model. The interview topic was about student opinion about the benefits of implementing the brain's natural learning systems of the instructional strategy model. The interview instrument was in the form of an interview guide related to the instructional process used as an instructional strategy model based on the brain's natural learning system, which consisted of 10 main questions. It can be developed into other problems with an open interview system for students.

Primary research data were in the form of video and audio recordings, especially the instructional process based on the brain's natural instructional strategy model. All instructional activities were recorded using a video camera and voice recorder. One camera was always in front of the class, while the other camera followed the lecturer and student activities when interacting. There were 14 observation activities with 1.5-

2 learning hours of learning each. Researchers only chose five observations as data to be analyzed based on the fact that the natural instructional strategy model of the brain had been implemented well. The results of this recording were transcripts to be used as a more detailed data analysis. Transcript results and interview results were analyzed using qualitative data analysis to obtain further results.

3.3 Setting and materials

The university where the study was conducted is a private university that openly accepts all students' characteristics, both RSs and SNSs. As a Tauhid (monotheism)-based university that is based on faith by providing justice for every human being, especially in education, it is very suitable if this university is considered one of the best universities in West Java. Classes are set as best as possible, not only physically like chairs, desks, or other learning tools, but also possesses an academic atmosphere that provides comfort and conduciveness for all students to study. Learning is carried out in the classroom and outside the classroom, including observations, theory, and learning practice. During the study, instructional materials took the form of inclusive education, the history of inclusive education, the definition of students with special needs, identification and assessment, and curriculum and inclusive classroom learning into consideration. The instructional process was carried out by a lecturer who had taught for five years and had competence in teaching courses in inclusive education. In addition to regular learning needs, for research needs, lecturers make models of instructional strategies based on the brain's natural learning system. Table 2 below is an example of an instructional strategy model based on the brain's natural learning systems:

Table 1. An example design of instructional strategy model based on the brain's natural learning systems in one subject

No	Topic of instruction	The brain's natural learning systems process	Instruction sequence	Methods	Media	Instruction materials	Assessment	Time allocation (in a minute)
Initial instructional activities								
1	Special need students in elementary school	Emotional learning system	-The lecturer invites students to play simple games on a chair -The lecturer invites students to sing -The lecturer plays a video about students with special needs in elementary school	-Playing -Lecture -Question and answer (Q & A)	-Infocus	-Textbook -Video	Oral	15'

No	Topic of instruction	The brain's natural learning systems process	Instruction sequence	Methods	Media	Instruction materials	Assessment	Time allocation (in a minute)
			-The lecturer asks the student's opinion about the film -The lecturer explains the relevance of the video to the topic -The lecturer explains the purpose and benefits of learning.					
Main instructional activities								
2		Social learning system	-The lecturer divides eight groups to start learning -The lecturer provides several photos and initial types of children with special needs in each group -The lecturer asks each group to look for characteristics of students with special needs -The lecturer asks each group member to share their opinions and explanations about the given assignment.	-Discussion -Q & A	-White-board -Internet	-Textbook -Journal	-Rubric	20'
3		Physical learning system	-The lecturer explains to each group about Braille (Blind) and CIBI (deaf) finger props -The lecturer divided four groups to practice using Braille, and four groups practiced	-Discussion -Practice	-Internet -Cartoon	-Textbooks	-Rubric	15'

No	Topic of instruction	The brain's natural learning systems process	Instruction sequence	Methods	Media	Instruction materials	Assess-ment	Time alloca-tion (in a mi-nute)
			the CIBI finger movements					
4		Cognitive learning system	-The teacher gives a roll of paper to each group that contains the topics that have been discussed -The lecturer asks each group to present their assignments on the role of paper -The lecturer allows other groups to be able to ask the group who is performing their task	-Presentation -Q n A	-White-board -Internet	-Textbook	-Rubric	20'
Closing instructional activities								
5		Reflective learning system	-The lecturer asks all groups about what they have learned -The lecturer explains the weaknesses and strengths of learning for each group -The lecturer reinforces each group against the weaknesses that arise -The lecturer reinforces learning at the next meeting to be better	-Lecturer -Q & A -Mindmap	-White-board	-	-	20'
Lecturer comments on learning -The power of learning: Today, learning is very challenging and fun. Each group jointly conducts exercises and discussions enthusiastically and actively. Especially in practicing Braille and CIBI letters. For them, this is the first experience in learning reading techniques for students with special needs. -Learning Weaknesses: Some weaknesses in learning are still visible, among others: the dominance of some group leaders who tend to be selfish in making decisions. Some students with special needs are still not active in discussions, so they must be reminded to be active. They always tend to be shy in giving opinions in groups.								

No	Topic of instruction	The brain's natural learning systems process	Instruction sequence	Methods	Media	Instruction materials	Assess-ment	Time alloca-tion (in a mi-nute)
-Follow-up: For the next meeting, lecturers should be able to use more varied learning methods and encourage all students to play an active role in learning. Methods like training with friends, role-playing are good examples of topics for the next meeting.								

3.4 Data analysis

Before the data were analyzed further, the first step was to make transcripts from various data sources (video / audio) from observations and interviews. In the interview results, the researcher analyzed the interview notes that determined the phrases associated with the instructional process related to the five brain's learning systems in the natural instructional strategy model. The results of the observations were put in the form of field notes. Then the data was used to produce code from the field notes by research questions. The research code was recorded to identify the instructional process from the beginning to the end of instruction, where the brain's natural instructional strategy model was implemented.

Researchers applied a qualitative analysis [38] and modified by [39][40] with three steps of analysis, namely:

- Thematic analysis of all participants, observing instructional activities from the beginning to the end of instruction both between teacher and student, and students and students, making field notes, coding, and interviewing students.
- Within-participants thematic analysis, identifying common themes from each learning activity.
- Cross participant analysis, identifying common themes among participants.

The final step in data analysis produced a cultural theme as a profile of implementing the brain's natural instructional strategy model in inclusive classrooms in higher education.

Table 2. Qualitative Data Analysis

Included Term	Semantic Relation	Cover Term
- Increase the desire to learn (motivation) - Desire to achieve goals according to their talents	Is part of	Self-regulation
-Build collaboration in learning -Enhance instructional interactions	Is part of	Peer relationship
-Explore the new knowledge - Enhance learning experiences	Is part of	Self-direction
-Know the strengths, abilities, and weaknesses	Is part of	Self- concept

4 Result and Discussion

Based on data analysis performed, this study produced a profile of the benefits of an instructional strategy model based on the brain's natural learning systems in inclusive classrooms in higher education.
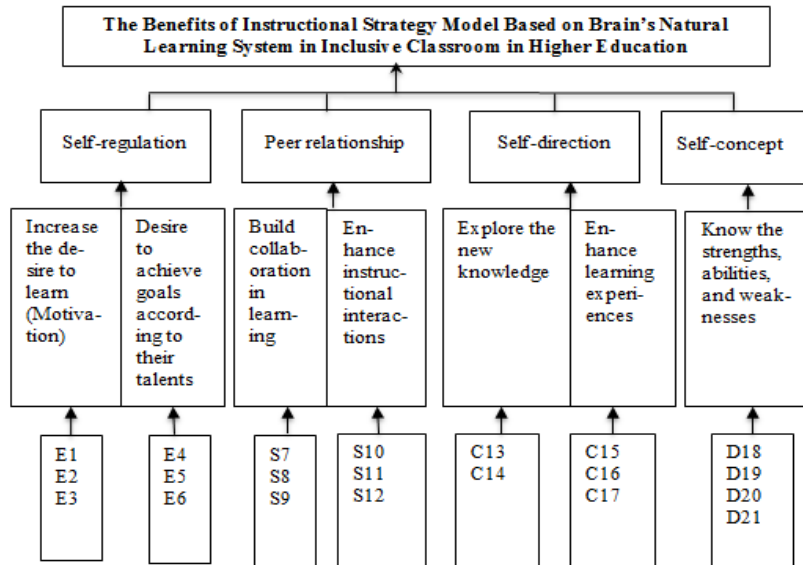

Fig. 3. The Benefits of an instructional strategy model based on the brain's natural learning system in an inclusive classroom in higher education

Note:

- E1: The lecturer does icebreaking
- E2: The lecturer invites students to sing
- E3: The teacher makes a simple game
- E4: The lecturer plays the film
- E5: The lecturer explains the relevance of the lesson
- E6: The lecturer explains the aims and benefits of the lesson
- S7: The lecturer asks students to study according to their group
- S8: The lecturer gives the task of discussing with fellow group members about the film that has been screened
- S9: The lecturer gives a roll of paper to each group member that contains a theme for which an explanation should be found
- S10: The lecturer asks each group member to present their findings on the theme among group members
- S11: Lecturers provide opportunities for students with special needs to study together with regular students

- S12: The lecturer asks each group to present the discussion's results in front of the class by the theme
- C13: Lecturers provide opportunities for group members to use the learning resources (journal, Internet, textbooks) that have been provided to find topics.
- C14: Lecturers provide the opportunity to use the Internet to find the right journal to recover data by the theme
- C15: The lecturer allows each group member to give each other input, as well as criticism of each theme explained by other group members.
- C16: The lecturer allows other group members to assess the presentation process related to the contents of the theme explained in front of the class
- C17: The lecturer allows each group to conclude each theme discussed in front of the class
- D18: The lecturer gives reinforcement of the material being discussed
- D19: The lecturer explains the challenges and obstacles to the theme being discussed
- D20: The lecturer evaluates the strengths and weaknesses of each group
- D21: The lecturer summarizes the results of the discussion

Based on the profile in Figure 3, four themes are the benefits of instructional strategies based on the brain's natural learning system, which can be explained in detail in the discussion of this study. The four themes are self-regulation, peer relationship, self-direction, and self-concept.

4.1 Benefit 1: Self-regulation

The emotional learning system aims at implementing learning in the initial activities that can arouse student learning interest, as well as foster motivation to learn so that it will facilitate students to achieve learning goals that have been set. The benefits felt by all students in learning are expected to be a strong foundation if they are faced with work in the future. As graduates who have organized self-regulation, they can plan, organize, measure, and instruct themselves in achieving performance [41]. Another benefit is that students are expected to be able to increase self-motivation by organizing themselves, in the context of channeling their talents and interests. This opinion is as expressed by students:

"For me, at the beginning of learning, it gives an idea of how I will have to work later. I certainly need a high motivation, and will only carry out work by my interests, so that what I want can be achieved."

Self-regulation needed at the beginning of instruction but measuring the success of instruction can be done at each stage until the end of learning. The achievement of instructional objectives is the endpoint of self-regulation and will be re-evaluated repeatedly, both successes and failures that are not by the learning objectives. The benefits of self-regulation for students can make the classroom a world of work that will involve elements of emotion, thought, motivation [40], and engage the talents and interests that are preferred to achieve the goals set, or learning outcome [42]. For the

future, special self-regulation students can help prepare them to prepare for work and independence in order to achieve success [43].

4.2 Benefit 2: Peer relationship

The social learning system aims to provide opportunities for all students, including SNS, to work together and interact in completing academic assignments. The key to peer relationships is that each friend has the same level of acceptance [44][45]. In inclusive classes, conditions of peer acceptance often become a problem, due to the shortcomings that some students have, including difficulty in communicating and tend to shut down or even anti-social from their friends. The teacher's role as a unifier of all student characteristics is significant so that all students can work together in a solid team. Peer relationships in the inclusive classroom, particularly to SNSs provide opportunities for all students to develop communication skills and networks, friendships [46][47], and problem-solving practices together. This opinion was conveyed by one of the SNSs:

"One of my difficulties in working with peers is because I shut myself down to interact. But now the lecturer allows me to have the same rights as a team in expressing opinions."

The benefits of positive peer relationships as an implementation of the social learning system in learning were to place all students, including SNSs, as part of the same group. Peer relationships will feature academic skills, prosocial behavior, and leadership qualities [48][49].

4.3 Benefit 3: Self-direction

Cognitive learning systems and physical learning systems aim to enable students to explore knowledge and make decisions about the problem or topic being studied [50]. The benefits of these two learning systems, form a self-direction of students so that they can use all resources and access to all learning resources, to be processed and used by the learning needs and learning objectives to be achieved. According to their characteristics and obstacles, self-direction for SNS provides benefits to manage to learn with RSs. SNS can put out its best ability to gain new knowledge and learning experiences both independently and in RS's assistance, which can be done continuously in learning activities. Self-direction refers to the learner's ability to evaluate and make decisions within a particular domain of knowledge and closely associated with informal learning and life-long learning [19][51]. The following is the opinion of the RS about self-direction:

"We are allowed by lecturers to determine what methods are appropriate in discussing a topic. Although in general, the lecturer asked us to discuss in small groups".

As a facilitator, the teacher provides and opens access to learning resources so that all students can use them. The use of smart mobile devices strongly supports the search for data needed by students in processing information [52-53], learning experiences, improves the cognitive and critical skills of learners [54-56]. The benefits of

self-direction for students can be trained so that later in the work environment can determine the planning, implementation, and performance evaluation that has been determined for its purpose [57].

4.4 Benefit 4: Self-concept

The reflective learning system aims to make all students, including SNS, know their weaknesses, strengths, and abilities both in learning and long-term goals when choosing their jobs. The benefits of a reflective system are the formation of students' self-concepts, obtained through self-regulation (emotional) and self-direction (cognitive) in positive relationships (social) or interaction with peers and teachers in learning activities [58][59-61]. Self-concept becomes a capital for students to hone strengths, correct weaknesses, improve abilities, and maintain positive values that will be used in every learning and work activity [21][62]. Students can feel what should be improved in learning so far; they rarely get feedback after implementing learning. For SNS, self-concept needs to be sharpened so that all the weaknesses that can be used as a basis for strengthening values and strengths [63]. The statement related to self-concept was explained by one of the SNS:

> *"During this time, I did not know what my best ability was when studying, but now openly, the teacher gave that I was able to do work according to my characteristics."*

Reflective learning systems have shaped students' self-concepts. The impact of self-concept was on the beliefs and values, attitudes, and expectations of students, as well as social relationships that occur in instructional activities [64-66].

The five natural learning systems of the brain that are practiced in instructional activities have benefited all students. The connectedness of the five learning systems also forms interrelated and influential benefits. Self-regulation is the concept of managing emotions, thoughts, motivation, and interest in setting learning goals. A peer relationship is a condition that every student is accepted as the same individual in status to be able to achieve academic skills. Self-direction shapes students to be able to process all learning resources, plan, implement, and assess learning independently and others. Self-concept provides an overview of students' strengths, weaknesses, abilities, and values.

5 Conclusion

Implementation of an instructional strategy model based on the brain's natural learning system in inclusive classrooms in higher education provides four benefits: self-regulation, peer relationship, self-direction, and self-concept. The four benefits felt by students are interrelated and affect the success of learning in inclusive classrooms. The benefits of self-regulation will affect student acceptance as part of groups with the same rights and status in learning. It will also have an impact on the management of student learning in planning, implementing, and evaluating learning. Even

in the end, students can know the strengths, weaknesses, values, and abilities possessed in achieving learning objectives.

Instructional strategies based on the brain's natural learning system are very suitable for inclusive classrooms in higher education, as students who are expected to learn independently according to the development of the current learning revolution. The long-term benefits for students in instruction can be used when they enter the workforce. This instructional strategy is expected to be practiced by teachers, academics, as well as a reference for other researchers always to be able to renew instructional strategies that are in line with educational development, especially in the design of instruction in inclusive classrooms for all levels of education.

6　Acknowledgement

7　References

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