



**INTERNATIONAL JOINT CONFERENCE ON SCIENCE AND TECHNOLOGY 2017**  
 SCIENCE, TECHNOLOGY, INNOVATION, AND CULTURE FOR SUSTAINABLE DEVELOPMENT: CHALLENGE FOR GREEN INDUSTRY

**CERTIFICATE OF APPRECIATION**

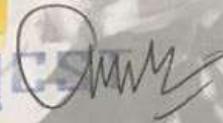
No. : 09.002/IJCST/2017

is awarded to:

***Ketut Prasetyo***  
 (Presenter)

in recognition of valuable contributions.

Nusa Dua Bali, September 28, 2017  
 Conference Chair,


Lilik Sudiajeng (Dr. Ir., M.Erg.)

AYODYA RESORT NUSA DUA BALI, INDONESIA, 27-28 SEPTEMBER 2017



Conference Marks:



The 2<sup>nd</sup> **ICOSE**  
 International Conference On  
 Science And Engineering

The 2<sup>nd</sup> **ICOMISE**  
 International Conference On  
 Mathematics, Science And Education

The 2<sup>nd</sup> **INCHES**  
 International Conference On Humanities,  
 Education, And Social Science

The 5<sup>th</sup> **tech**  
 Bali International Seminar on  
 Science And Technology

The 2<sup>nd</sup> **ITIS**  
 Information and Communication  
 Technology International Seminar

PAPER • OPEN ACCESS

## Urgency of increasing the quantity and quality of student creativity program

To cite this article: Sarmini *et al* 2018 *J. Phys.: Conf. Ser.* **953** 012193

View the [article online](#) for updates and enhancements.

### You may also like

- [Students' creativity level on solving mathematics problem](#)  
C A F Thohari, Budiyo and H Pratiwi
- [Analysis of mathematical creativity in the field of geometry in junior high school students](#)  
S D A Permatasari, B Budiyo and H Pratiwi
- [The Effect of Lego Mindstorms as an Innovative Educational Tool to Develop Students' Creativity Skills for a Creative Society](#)  
Mardhiah Masril, Billy Hendrik, Harry Theozard Fikri et al.



## Breath Biopsy<sup>®</sup> OMNI<sup>®</sup>

The most advanced, complete solution for global breath biomarker analysis

TRANSFORM YOUR RESEARCH WORKFLOW



Expert Study Design & Management



Robust Breath Collection



Reliable Sample Processing & Analysis



In-depth Data Analysis



Specialist Data Interpretation

# Urgency of increasing the quantity and quality of student creativity program

**Sarmini<sup>1\*</sup>, Ketut Prasetya<sup>2</sup> and Ulin Nadiroh<sup>3</sup>**

<sup>1</sup> Department of Pancasila and Citizenship Education, Faculty of Social Sciences and Law, Universitas Negeri Surabaya, Ketintang, Surabaya 60231, Indonesia

<sup>2</sup> Departement Of Geography, Faculty of Social Sciences and Law, Universitas Negeri Surabaya, Ketintang, Surabaya 60231, Indonesia

<sup>3</sup> Departement of Social Studies, Universitas Negeri Surabaya, Ketintang, Surabaya 60231, Indonesia

\*E-mail: sarmini@unesa.ac.id

**Abstract.** Student creativity is very important to improve the quality and quantity. The purpose of this paper is to identify the quality and quantity of the Student Creativity Program. The method in this research is exploratory study. The subjects taken are the leaders of deans and vice deans at the State University of Surabaya. Data collection techniques used are kusioner. The result of this research is creativity program in student is very important. Not only improve the quality and quantity of creativity, but also affect the image of the institution. It is necessary to have written rules on the regulations on the Student Creativity Program and to take a comprehensive and comprehensive approach, and to organize the budget is the main thing.

## 1. Introduction

Student creativity is very important to support new things and create a young generation that has innovation and creativity. Student creativity development consists of various aspects, namely the development of student creativity built from leadership policies, models of Student Creativity Program, the development of student creativity through learning, and the development of multi talent creativity of students.

Student Creativity Development is built on creative leadership policies for example in managing organizations innovatively. Creativity is an important process for creating innovation through the development of leader's creativity [1], for example by utilizing technology in developing creative leadership capacity. A leader must be able to think creatively and facilitate the creative work of others, but the traditional approach to developing leaders has not been fully addressed. The key issue with regard to developing creative and innovative leadership capacity is the lack of clear and articulated objectives for program development [2]. The involvement of youth is an attempt to improve democratic principles in student leadership and increase aspirations for higher education for all students [3].

Student Creativity Development can be seen in the development of high level creativity in exploration practice. This can broaden the understanding on the focus of high-level creativity development. For example by using modeling that provides a contextual understanding of learning and explain the development of high-level creativity [4]. In addition, innovation and creativity can build students into professional generations such as through the development of apprenticeship projects to



encourage students to study and provide opportunities to explore the theory of science, applied to human activities through creative media, such as in film making, poetry, textiles, animation and photography. Student evaluation with this project can be identified as a classroom learning meeting [5].

The model of creativity development program in scholarship has emphasized on the program as a whole that is by developing the talents of students who have the potential, creative and productive so that it can increase significantly [6]. In addition, building student creativity can be through organizational creativity. This can be used as an alternative in encouraging creativity in terms of organization [7], for example assessing the progress of engagement in collective tasks as a process of team performance activities to be creative [8]. Thus, creative is the determining factor of creativity and intervention in someone who already has significant potential [9].

Student creativity development through learning can be seen in the efficacy of teaching creativity with creative thinking assessment on students before and after learning, by preparing students as future generations to face and adapt to constant change both personally and professionally. Train creativity through learning can be done one of them with courses such as forming four learning modules are: (a) what creativity, (b) recognize and identify opportunities, (c) generate ideas, and (d) evaluate creative ideas [10]. Student creativity is a form of their creative thinking. The development of process creativity and student products is preceded by the development of creative thinking. The talent of creative thinking has challenging implications for educators to develop student creativity [11]. For the development of thinking, the talent and creativity of students can review the progress and development of human resource learning in order to contribute to improve the quality of life in the community [12]. In developing creativity there are also constraints namely process constraints and product constraints that impact on creativity [13].

The multi-creativity development of students can be seen in the multi-creativity study of the young generation by exploring various creative thinking abilities [14]. Measuring the talent capacity of student creativity can also be done by product assessment that is linking creativity with talent, using the steps of creativity to identify student talents [15].

Students' attitudes toward creativity are reflected in some favorable attitudes, such as being more favorable to improving the creativity of female students than men [16]. For example lifestyle and love of student creativity motivated learning in journalism. The creativity of journalism students is useful for the wider community, because the creativity of the journalist is absolutely part of the style of expressing talent with the ideals of public service [17]. Creativity students start from their company while studying on campus. The universe's environmental effect on the logic of student entrepreneurial resources provides overall support for the view that entrepreneurial students have developed creative resource logic [18].

Indeed Student Creativity Program is a challenging program, serves as a medium to build student credibility in the contribution of ideas, ideas and research results in building entrepreneurial spirit and students' critical thinking competencies. If managed well, this Student Creativity Program is very much improved both in terms of quantity and quality of creativity of students. Given that the Student Creativity Program is contest and open, the Student Creativity Program is also able to function as an instrument for improving the image of the institution, in this case Universitas Negeri Surabaya (Unesa) to stand in line or even more advanced, compared to other universities. Based on the above description, the research on the development of policy model in improving the quality and quantity of Student Creativity Program for the strengthening of critical thinking in order to build the image of Universitas Negeri Surabaya toward the superior and competitive universities is important.

## 2. Method

This research was an exploratory study. Data collection techniques used kusioner. Subjects respond with five categories of terms using the Likert Scale, which is: strongly agree (5), strongly agree (4), agree (3), disagree (2), and strongly disagree (1) with an answer score. Questionnaire on the

importance of improving the quality and quantity of student creativity programs. Subjects in this paper are the leaders of deans and vice deans at Universitas Negeri Surabaya (UNESA).

### 3. Results and Discussion

Student Creativity Program generally aims to improve the academic climate of creative, innovative, visionary, solutif and independent. Improving the quality of students (students) in Higher Education so that later can become members of the community who have academic and / or professional ability that can apply, develop and disseminate science, technology and / or art and enrich the national culture. The Student Creativity Program covers 7 areas that each have a specific purpose.

University Leaders and leaders at the Faculty level should have a proper understanding of the Student Creativity Program, both on concepts, types of Student Creativity Programs, the importance of the Student Creativity Program for supervisors and students, the relevance of the Student Creativity Program with institutional imaging, written or unwritten policy ever undertaken, quantity improvement strategies and the quality of the Student Creativity Program, to budget support and the importance of reward and punishment for lecturers and students involved in the Student Creativity Program. The related data can be observed in the following table.

**Table.1** Recapitulation of data analysis about the urgency of increasing the quantity and quality of Student Creativity Program

No.	Statement	Percentage					Total
		1	2	3	4	5	
1.	Student Creativity Program is able to realize University graduates who have academic knowledge, skill of thinking, management skill, and communication skill.					16 (100%)	
2.	Leaders must understand the types of Student Creativity Program so as to provide appropriate policy.				12 (75%)	14 (87.5%)	
3.	For students Creativity Program Students are able to train critical thinking, innovative and sharpen the sensitivity of various problems that exist in society.					16 (100%)	
4.	For the lecturer guiding the Student Creativity Program is not only part of the obligation, but the success of guiding the Student Creativity Program is part of the self-esteem.				3 (18.75%)	13 (81.25%)	
5.	Student success in the Student Creativity Program actually reflects not only the students' abilities, but also the success of their mentors and institutions. Student Creativity Program is able to build institutional imaging.					16 (100%)	
6.	Leaders must work hard to improve the quality and quantity of the Student Creativity Program to build institutional imaging.				2 (12.5%)	14 (87.5%)	
7.	Improving the quality and quantity of the Student Creativity Program should be based on the written rules of Higher Education policy.				4 (25%)	12 (75%)	
8.	Improving the quality and quantity of the Student Creativity Program can be based on longstanding habits (unwritten rules) in Higher Education.		2 (12.5%)		4 (25%)	10 (62.5%)	
9.	Improving the quality and quantity of Student				4	12	

	Creativity Program can be done through strengthening in learning activities.	(25%)	(75%)
10.	Improving the quality and quantity of Student Creativity Program can be done through strengthening in student activities	2 (12.5%)	14 (87.5%)
11.	Improving the quality and quantity of the Student Creativity Program can be done through a comprehensive and integrative approach involving various parties.		16 (100%)
12.	Given guiding the Student Creativity Program is also part of the lecturers' duties, then if He can not complete the mentoring process, will get punishment.	6 (37.5%)	10 (62.5%)
13.	Students who pass the PIMNAS is meaningful National Student Scientific Week must be rewarded by the institution in order to motivate other students.		16 (100%)
14.	Improving the quality and quantity of the Student Creativity Program must be supported with adequate budget.		16 (100%)

Based on Table 01 there are several things that can be inferred. First, related to the understanding of the concept of the Student Creativity Program. University leaders and faculty (100%) agree that Student Creativity Program is able to realize University graduates who have academic knowledge, skill of thinking, management skill, and communication skill. Creativity Program Students are able to train students in creative thinking, critical, and sensitive to the problems that exist in society. Therefore, the leaders agreed that the Student Creativity Program has an important dimension.

Second, an understanding of the types of Student Creativity Programs. The leadership approved 2 people (12.5%) and 14 people (87.5%) agreed to understand the types of Student Creativity Program so as to provide appropriate policy. This precise understanding will affect the accuracy in providing direction related strategies that will be done in improving the quality and quantity of Student Creativity Program. Meanwhile, the leaders assume that for Student Creativity Program students are able to train critical thinking, innovative and sharpen the sensitivity of various problems that exist in society 16 (100%). The Leader agrees that for the lecturer guiding the Student Creativity Program is not only part of the obligation, but the success of guiding the Student Creativity Program is part of the self esteem (81.25%).

Third, the view that the Student Creativity Program is for institutional imaging. All leaders (100%) agree that the success of students in the Student Creativity Program does not only reflect the student's ability, but also the success of the mentor and the institution. Leaders must work hard to improve the quality and quantity of the Student Creativity Program to build institutional imaging.

Fourth, Identify written and unwritten policy in improving Student Creativity Program. The leaders are very agree (75%) and agree (25%) the improvement of the quality and quantity of the Student Creativity Program should be based on the written rules policy of Higher Education. However, the leaders acknowledged that Unesa had no written rules in the form of Rector's Rules and Rector's Decree which discussed the improvement of the quality and quantity of the Student Creativity Program. During this time some leaders (62.5%) policy improvement Student Creativity Program is done based on unwritten rules. However, 2 of them (12.5%) did not agree that the unwritten rule was used as a foothold in taking policy.

Sixth, the strategy of improving Student Creativity Program has been done. The Leader agrees that the increase in the quantity and quality of the Student Creativity Program can be done through several things, namely through learning (75%), through student activities (87.5%), through a comprehensive

and integrative approach involving various parties (100%), through reward and punishment on the success of the Student Creativity Program (62.5%). Some leaders (37.5%) did not approve of punishment, because they did not solve the problem. Seventh, budget support in the implementation of the Student Creativity Program is considered to be an important dimension by the leadership (100%).

#### 4. Conclusion

It can be concluded that Student Creativity Program is important because it able to train students in creative thinking, critical, and sensitive to the problems that exist in society. Student Creativity Program is not only an obligation for guiding lecturers, but it is part of the self-esteem and success in guiding the Student Creativity Program. Student Creativity Program is for institutional imaging to improve the quality and quantity of Student Creativity Program to build institutional imaging. However, Unesa has no written rules in the discussion about improving the quality and quantity of Student Creativity Program. Increasing the quantity and quality of Student Creativity Program can be done through learning, student activities, comprehensive and integrative approach involving various parties, and reward or punishment. Budget in the implementation of Student Creativity Program is considered an important dimension.

#### Acknowledgment

Thank to Directorate of Research and Community Service, Ministry of Research and Technology of Higher Education for supporting this study through The National Strategic Research Scheme Year 2017, the Work Order No. 1114/UN38/HK/LT/2017 on 28 dated August 2017.

#### References

- [1] Williams F and Foti RJ 2011 Formally developing creative leadership as a driver of organizational innovation *Advances in Developing Human Resources* **13**(3) 279-296
- [2] Antes AL dan Schuelke MJ 2011 Leveraging technology to develop creative leadership capacity *Advances in Developing Human Resources* **13**(3) 318-365
- [3] Chile LM and Xavier MB 2015 University–community engagement: Case study of university social responsibility *Education Citizenship and Social Justice* **10**(3) 234-253
- [4] Stierand M 2014 Developing creativity in practice: Explorations with world-renowned chefs *Management Learning* **46**(5) 598-617
- [5] Collins M, Harrison D, Mason R and Lowden A 2011 Innovation and Creativity: Exploring Human Occupation and Professional Development in Student Education *British Journal of Occupational Therapy* **74**(6) 304-308
- [6] Kopelman M Galasso VG and Strom P 1977 A model program for the development of creativity in science *Gifted Child Quarterly* **21**(1) 80-84
- [7] Taylor MA and Callahan JL 2005 Bringing creativity into being: Underlying assumptions that influence methods of studying organizational creativity *Advances in Developing Human Resources* **7**(2) 247-270
- [8] Rodríguez-Sánchez AM, Devloo T, Rico R, Salanova M and Anseel F 2016 What Makes creative teams tick? Cohesion, engagement, and performance across creativity tasks: A Three-wave study *Group & Organization Management* **42**(4) 521-547
- [9] Unsworth KL, Wall TD and Carter A 2005 Creative requirement: A neglected construct in the study of employee creativity? *Group & Organization Management* **30**(5) 541-560
- [10] Karpova E, Marcketti SB and Barker J 2011 The efficacy of teaching creativity: Assessment of student creative thinking before and after exercises *Clothing and Textiles Research Journal* **29**(1) 52-66
- [11] Webster PR 1990 Creativity as creative thinking *Music Educators Journal* **76**(9) 22-28
- [12] Maria J and Molina M 2006 Ibero-American Institute for the development of thinking talent and creativity *Gifted Education International* **21**(1) 73-74

- [13] Rosso BD 2014 Creativity and constraints: Exploring the role of constraints in the creative processes of research and development teams *Organization Studies* **35**(4) 551-585
- [14] Ki-Soon H and Marvin C 2002 Multiple creativities? Investigating domain-specificity of creativity in young children *Gifted Child Quarterly* **46** (2) 98-109
- [15] Kettler T and Bower J 2017 Measuring creative capacity in gifted students: comparing teacher ratings and student products *Gifted Child Quarterly* **61**(4) 290-299
- [16] Tan-Willman C 1981 Canadian student teachers' attitudes about creativity *Psychological Reports* **48**(1) 49-50
- [17] Hanusch F, Clifford K, Davies K, English P, Fulton J, Lindgren M, O'Donnell P Price J, Richards I and Zion L 2016 For the lifestyle and a love of creativity: Australian students' motivations for studying journalism *Media International Australia* **160**(1) 101-113
- [18] Politis D, Winborg J and Dahlstrand AL 2011 Exploring the resource logic of student entrepreneurs *International Small Business Journal* **30**(6) 659-683