



The Contribution of Psychological Maturity and Knowledge Management in the Developing Sustainable Professional Development of Productive Programme Teachers at Public Senior Vocational Schools in Bali



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Abstract

This study has aimed the effect of psychological maturity and knowledge management on sustainable professional development of productive teachers of public senior vocational schools in Bali by using expose facto research method involving 162 productive program teachers. The data were collected through questionnaire and portfolio assessment. Data analysis was carried out by using two-predictor regression at 0.05. The results showed that most of the productive teachers tended to have a fairly high level of psychological maturity and a low-level knowledge management in the effort of sustainable professional development. Furthermore, the result of (1) the contribution from of psychological maturity (χ_1) and knowledge management (χ_2) to sustainable professional development (y) of 20, 4%, at $p \leq 0,05$ (2) the contribution from of psychological maturity (χ_1) to sustainable professional development (y) of 17,9%, $p \leq 0,05$ (3) the contribution from of knowledge management (χ_2) to sustainable professional development (y) of 3%, $p \leq 0,05$. It is recommended to the production program teachers to improve further their sustainable professional development by increasing their knowledge management based on their psychological maturity.

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1. Introduction

The policy of reversing the ratio of Senior High School/senior vocational school from 70:30 in 2008 to 30:70 by the Minister of National Education in Strategic Plan of the Ministry of Education and Culture 2010-2014 has an effect on the increase in the number of senior vocational schools in Indonesia every year^[1]. Nationality, the increase in number of school from 1,726 (2013/2014) to 12,659 (2015/2016) both public and private^[2]. In Bali Province, the number of senior vocational schools, both public and private in 2013/2014 was 160 and increase to 168 in 2015/2016^[3]. With the policy is expected an improvement in competitiveness especially in human resources development rather than in natural resources. The human resources of a nation cannot make people and nation prosperous unless the human resources are able to change the asset in a useful potential.

The data from BPS in Bali show that unemployment level according to educational level in August 2015 in Bali Province was 99 percent. The lowest elementary graduate and below was 0,83%, the senior vocational level was 3.63% while at senior high school was 2.87%^[4], from this conditions it can be seen that the competence of the senior vocational students up to the present time has not met the industrial word expectation.

The government has appreciated teachers as professionals with the issuance of act No. 14 of 2005 on Teachers an Lecturers. However, in its implementation, the teaching profession has not yet netted the expectation. This is confirmed by the result of Teachers Competence Test (UKG) in 2015, which places teachers of SMK in Bali in the 5th rank with an average of 60.12, below East Java, DKI Jakarta, Central Java, and DI Yogyakarta. In addition, the UKG average of SMK teachers in Bali Province is still below that of SMA teachers 62,74^[5]. This indicator means that the teacher's main duty and function in professional development do not meet the expectation. This needs attention from various parties to make teachers become professional.

Certification and professional incentive cannot guarantee professionalism. There are other dimensions that need to be met to be professional. According to the needs and demands of CPD (Continuing Professional Development) as regulated in the Regulation of the State Minister of Nation's Apparatus and Bureaucratic Reformation/No. 16 Of 2009 on Teacher's Function.

In relation to the instructional process which stresses the importance of motivation and reinforcement, this paper focuses more on internal factors, in this paper, they are specified into psychological maturity. According to Maslow, a person's maturity is indicated by his or her ability in actualizing him/herself, i.e., in using all of his/her aptitudes, capacities, potentiality, etc^[6].

2. Research Methods

This study was a correlational research with *expost facto* research approach. This study was conducted public senior vocational school in Technology Expertise and Engineering major in Bali with a sample of 162 productive program teachers. The data were collected with a questionnaire and portfolio assessment was analyzed with descriptive analysis at the 0,05 level of significance. Indicators to organize pedagogical knowledge, actualize knowledge and skills, actualize contextual knowledge, and actualize self-experience in implementing learning in the classroom, while continuous professional development is an effort made by teachers to follow the learning process used for the improvement of competence and professionalism himself and the improvement of school quality as a workplace measured through self-improvement indicators, scientific publications and innovative workable and Figures are the presented center, as shown below and cited in the manuscript.

3. Results and Analysis

The collected data include sustainable profession development score (\square) psychological maturity score (X_1), and knowledge management score (X_2). Table 4 below is a summary of data descriptions of sustainable professional development variables (\square), psychological maturity (X_1), and knowledge management skills (X_2).

Table 1
Summary of Variable Data Description Statistics

Statistics	Variable		
	X_1	X_2	\square_1
N	162	162	162
Mean	138,19	188,86	86,35
Median	138	188	87

Mode	135	185	82
Standar Deviation	10,75	11,13	7,06
Varians	115,62	123,94	49,91
Range	51	51	29
Min	126	166	70
Maxs	177	217	99

Descriptively it can be explained that productive programme teachers in public senior vocational school have categories of physiological maturity as follows: 61.73% were categorized into good category, 37.04% in to fairly good, 1,23% into very good category, and they had knowledge management abilities which fell into the following categories: 8.02% were categorized into very good category, 26,54% into good category, and 32.10% into fairly good; and their professional developments followed: 19.75% were categorized into very good and 34.54% into good category.

The result of regression analysis showed that (1) there was a correlation between psychological maturity (χ_1) and sustainable professional development (\square) with $r = 0,438$ and the contribution of χ_1 to y was by 19.2%, at sig. $0.000 < \alpha = 0.05$; (2) there was a correlation between psychological maturity (χ_1) and knowledge management (χ_2) and SPD (Y) with $r = 0.142$, and the effect between χ_1 and χ_2 on y was 20,4% at sig. $0.026 < \alpha = 0,05$ so that the effect of χ_2 on y was 3% with regression equation $\square = 15.077 + 0.438x_1 + 0,142 + 0,896$.

Productive programme teacher maturity contributed to teacher professional development by 19,2%. Knowledge management ability contributed to teacher professional development by 3% and productive program teacher psychological maturity and teacher knowledge management ability simultaneously contributed to teacher sustainable professional development by 20,4%.

Psychological maturity was measured through the indicators of awareness belief, value and ethics while teacher knowledge management ability was measured through the indicators of organizing pedagogical knowledge, actualizing knowledge and skill, actualizing contextual knowledge, and actualizing one's experience in teaching in the classroom, while sustainable professional development is an effort made by the teacher to follow a useful instructional process to improve his/her competence and professionalism and the school quality as his/her workplace as measured through the indicators of self-development, i.e. scientific publication and innovative works

4. Conclusion

Based on the results of data analysis and discussion as has been described in advance can be concluded that most teachers of SMK tend to have knowledge management capability including good category in the framework of sustainable professional development activities. The trend of indicator data is known that the organizing indicators of pedagogical knowledge are more dominant than the other three indicators in this variable, namely: actualizing theory and practice knowledge, actualizing knowledge of experience, and actualizing contextual knowledge. Furthermore, the development professionalism of some teachers of Vocational School come to good category. The trend of indicator data showed that the impact utilization and monitoring indicators are more dominant than the other two indicators in this variable: identification and demand analysis, as well as the design and implementation of professional development. Nevertheless, the results of the analysis show that the teacher's knowledge management capability still contributes relatively little to the development of professionalism so that it needs to be improved in order to achieve more optimal benefit.

Conflict of interest statement and funding sources

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Statement of authorship

The authors have a responsibility for the conception and design of the study. The authors have approved the final article.

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