

Contribution of Internal Factors to Pedagogy and Professional Competence of Senior High School Teacher in South Sulawesi, Indonesia

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Abstract: *This study aims to determine the contribution of internal factors (professional attitude, work ethic, and achievement motivation) to pedagogical and professional competence of high school teachers in South Sulawesi. This study used a quantitative type survey approach. Population in this study were 11,870 high school teachers in South Sulawesi who had taken teacher competency tests with a sample of 386 people. Data collection in this study applied questionnaires and teacher competency test documents. Questionnaires are used to obtain data on internal factors and documentation used to determine the pedagogical and professional competencies of high school teachers. The research data were analyzed using descriptive analysis and regression analysis. Based on the results of the study it can be concluded that simultaneous internal factors contribute to the pedagogical competence of high school teachers in South Sulawesi by 3.0% and simultaneous internal factors contributing to the professional competence of high school teachers in South Sulawesi is 5.1%.*

Keywords: *Internal Factors, Pedagogic Competence, Professional Competence*

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I. Introduction

Professional teachers are the key factors that determine the success of implementing quality education. In other words, the development of quality education is needed by teachers who have competencies in accordance with the demands of the teaching profession. Thus, the presence of professional teachers is an absolute demand for achieving educational success (Arismunandar, 2012). This further emphasizes that, to be able to present quality education, especially in South Sulawesi, it requires the presence of professional educators. Government Regulation Number 19 of 2005 concerning National Education Standards (SNP) article 28 that educators must have academic qualifications and competencies as agents of learning, physically and mentally healthy, and have the ability to realize national education goals. Competence as an agent of learning at the secondary education level includes pedagogical competence, personality competence, professional competence, and social competence.

Teachers as professions that are very strategic in preparing the next generation, have increasingly important roles and functions in the future. The consequence of this is the need to always be made more serious efforts in handling, fostering and improving the quality of teachers so that it can be concluded that teacher professionalism is a paradigm that cannot be negotiable (Daryanto, 2013: 7). Teacher empowerment as a qualified profession requires the involvement of all stakeholders who need to create a condition that can trigger and stimulate teachers to be able to act and behave and have capacities and capabilities in accordance with the scientific field they are engaged in, these conditions are internal and external factors (Samnur, 2017). The internal factors are of course derived from the teachers themselves, both individually and institutionally as a profession that demands high awareness and responsibility in carrying out their roles and functions as educators. Strong commitment is needed both scientifically and morally so that the teacher can think and act professionally, as with other professions that require specific expertise. External factors in this case are more directed at government policies in encouraging and creating an atmosphere and mechanism that is capable of giving birth to professional teachers.

Competence as a combination of mastery of knowledge, skills and attitudes manifested in actions and performance according to Zwell (Wibowo, 2010), is influenced by several factors, namely beliefs and values, skills, experience, personality characteristics, motivation, emotional issues, intellectual abilities and organizational culture. Sahertian (2000) explains that the factors that influence pedagogical competence are the knowledge, skills, and attitudes that the teacher has, the leadership of the principal, the work environment that encourages the motivation of the work of the teacher. While the factors that influence the professional competence of teachers in the research conducted by Saripuddin (2014), it is known that the teacher's attitude

about his profession has a significant influence. The intended attitude includes: trust in the profession, teacher satisfaction with the profession, and teacher behavior towards the profession, has a positive tendency. Another factor is teacher work motivation has a significant effect on teacher professional competence. The intended work motivation includes self-success, risk taking, and teacher dependence, most of which are categorized as being moderate.

Other research results such as those conducted by Khan and Sarwar (2011) found that the most decisive factor for teacher professional competence was influenced by training (training and / or development) in several fields. According to him, training makes teachers have the abilities and skills needed in teaching and learning activities, and can also change their attitudes in carrying out their performance. Grouping of factors that influence teacher competencies are internal and external factors of the teacher. Internal factors that influence teacher competency are educational background, teaching experience, work ethic, upgrading and training. Whereas external factors that influence teacher competency are work climate, organizational policy, social work environment, facilities and infrastructure (Samnur, 2017). These factors interact and influence teacher competence.

Based on the description of the above problems, the authors are interested in conducting research with the title contribution of internal factors (professional attitude, work ethic, and achievement motivation) to the pedagogical and professional competencies of high school teachers in South Sulawesi. The purpose of this study is to know the magnitude of the contribution of simultaneous internal factors to pedagogical and professional competence of high school teachers.

II. Material And Methods

This study uses a quantitative approach to the type of survey because what is learned is sample data obtained from the population (Mitchell & Jolley, 2007: 208). Population in this study were 11,870 high school teachers in South Sulawesi who had taken the teacher competency test. Sample size determination uses random number tables from Issac and Michael (1984: 193) with a level of error $\alpha = 5\%$, so that a sample of 386 people is obtained. Data collection in this study uses questionnaires and teacher competency test documents. Questionnaires are used to obtain data about internal factors (professional attitude, work ethic, and achievement motivation), while documentation is used to find out the pedagogical and professional competencies of high school teachers. The research data were analyzed using descriptive analysis and regression analysis. Analysis of the data is done with the help of SPSS version 20.0 for Windows software. Descriptive analysis in this study aims to determine the characteristics of internal factor variables (professional attitude, work ethic, and achievement motivation), pedagogical and professional competence of teachers. Meanwhile the regression analysis was used to see the contribution of internal factors (professional attitude, work ethic, and achievement motivation) to the pedagogical and professional competencies of high school teachers.

III. Result and Discussion

3.1. Description of Pedagogic Competence

Pedagogical competency data of high school teachers in South Sulawesi were obtained through documentation data from the results of the Teacher Competency Test (UKG) Directorate General of Teachers and Education Personnel (GTK) Directorate of Secondary Education Teacher Development of the Ministry of Education and Culture of the Republic of Indonesia. From the results of the UKG data analysis it is known that the minimum score for the high school pedagogical competence is 0 and the maximum number of scores is 100 so the average criteria (\bar{X}_k) is 50 and the standard deviation criteria (σ_k) is 16.67.

The results of the UKG data analysis also showed that the minimum score of pedagogical competence of high school teachers in South Sulawesi was 6.61 and a maximum score of 99.21, the average score was 56.97, the median was 55.56, the mode was 59.52, and the standard deviation 18.34. Furthermore, using the criteria for graduating UKG from the Directorate General of Teachers and Education Personnel (GTK), namely a minimum score of 70 to be declared a UKG graduate, a classification of the pedagogical competencies of high school teachers in South Sulawesi can be arranged based on the UKG results in Table 1.

Table 1 Classification of Teacher Pedagogical Competencies Based on UKG Results

No	Category	Interval	Frequency	Percentage
1	Pass	≥ 70	91	23.58
2	Not Passing	< 70	295	76.42
Total			386	100,00

Based on Table 1 above, it is generally known that the pedagogical competencies of high school teachers in South Sulawesi are based on the results of UKG conducted by the Directorate General of Teachers and Education Personnel (GTK) Directorate of Secondary Education Teacher Training, showing that teacher graduation rates are still low at 23.58 % and the level of graduation is still very high at 76.42%.

3.2. Description of Professional Competence

The professional competency data of high school teachers in South Sulawesi is obtained through documentation data from the results of the Teacher Competency Test (UKG) of the Directorate General of Teachers and Education Personnel (GTK) Directorate of Secondary Education Teacher Development of the Ministry of Education and Culture of the Republic of Indonesia. From the results of the UKG data analysis it is known that the minimum score for high school professional competence is 0 and the maximum number of scores is 100 so that the average criteria (\bar{X}_k) is 50 and the standard deviation criteria (σ_k) is 16.67.

The results of the UKG data analysis also showed that the number of minimum scores of high school teacher professional competencies in South Sulawesi was 15.31 and a maximum score of 100, a mean score of 59.83, a median of 61.22, a mode of 68.03, and a standard deviation of 16, 61. Furthermore, by using the criteria for graduating the UKG Directorate General of Teachers and Education Personnel (GTK), which is a minimum score of 70 to be declared a UKG graduate, a classification of the professional competencies of high school teachers in South Sulawesi can be arranged based on the UKG results in Table 2.

Table 2 Classification of Teacher Professional Competencies Based on UKG Results

No	Category	Interval	Frequency	Percentage
1	Pass	≥ 70	118	30.57
2	Not Passing	< 70	268	69.43
Total			386	100,00

Based on Table 2 above, it can generally be seen that the professional competence of high school teachers in South Sulawesi is based on the results of UKG conducted by the Directorate General of Teachers and Education Personnel (GTK) Directorate of Secondary Education Teacher Training, showing that teacher graduation rates are still low at 30.57 % and the level of unsuccessfulness is still high at 69.43%.

3.3. Description of Internal Factors Affecting Teacher Competence

Data on internal factors that affect the competence of high school teachers in South Sulawesi which consist of professional attitudes, work ethics, and achievement motivation are revealed by questionnaires consisting of 63 items on a four (1-4) scale, so the minimum score for internal factor variables affecting the competence of high school teachers in South Sulawesi is 63, the maximum number of scores is 252 so the average criteria (\bar{X}_k) is 157.5 and the standard deviation of criteria (σ_k) is 36.

Table 3. Classification of Internal Factor Scores Affecting Teacher Competence

No	Category	Interval	Frequency	Percentage
1	Very Low	63 - 103	0	0.00
2	Low	104 - 139	0	0.00
3	Medium	140 - 175	0	0.00
4	High	176 - 211	250	64.77
5	Very High	212 - 252	136	35.23
Total			386	100

Data from research on internal factors that affect the competence of high school teachers in South Sulawesi consisting of professional attitudes, work ethic, and achievement motivation show that the minimum score is 176, the maximum score is 235, the average score is 204.91, the median is 205, mode amounting to 191, and standard deviation of 13.54. Then by using the criteria average value ($\bar{X}_k = 157.5$) and standard deviation criteria ($\sigma_k = 36$), a classification of the number of scores can be arranged in five categories as in Table 4.5.

The average score of the research results ($\bar{X} = 204.91$) when compared to the classification criteria in Table 3, the respondents generally perceive internal factors (professional attitude, work ethic, and achievement motivation) that affect the competence of high school teachers in South Sulawesi in the high category. As many as 64.77% of respondents perceive internal factors that affect the competence of high school teachers in South Sulawesi in the high category, 35.23% in the very high category, and none or 0% perceive the internal factors that affect the competence of high school teachers in South Sulawesi in the very low, low and moderate categories.

Descriptive analysis also aims to see the achievement of internal factor variable scores that affect the competence of high school teachers in South Sulawesi by comparing the total scores achieved with the highest / ideal total score expected. The total score of internal factor variables that affect the competence of high school teachers in South Sulawesi obtained is 79,098, while the highest total score expected is 97,272. Therefore, the level of achievement of the total score of internal factor variables that affect the competence of high school teachers in South Sulawesi reached 81.32% of the highest expected total score.

Internal factors that influence the competence of high school teachers in South Sulawesi can be observed from three variables, namely: (1) professional attitude; (2) work ethic; and (3) achievement motivation. The data description of these variables is presented in Table 4.

Table 4. Description of Internal Factors Affecting Data High School Teacher Competence

Description Data	Professional Attitude	Work Ethics	Achievement motivation
Mean	67.03	78.91	58.97
Median	67.00	79.00	58.00
Mode	69.00	71.00	54.00
Deviation. Std	4.02	5.71	6.26
Minimum	55.00	68.00	44.00
Maximum	75.00	91.00	80.00
Sum	25874	30460	22764
Criteria Score	32424.00	37056.00	27792.00
Score Achievement	79.80	82.20	81.91

Based on Table 4. it can be concluded that from the three internal factor variables that affect the competency of high school teachers in South Sulawesi, work ethic that has the highest level of achievement scores is 82.20% and the professional attitude variable which has the lowest level of achievement score is 79.80% of the average achievement for all variables is 81.32%. Meanwhile achievement motivation has a score reaching 81.91%.

3.4. Internal Factor Influence on Pedagogic Competencies

The influence of internal factors (professional attitude, work ethic, and achievement motivation) on the pedagogical competence of high school teachers in South Sulawesi can be seen from the results of multivariate statistical analysis, namely multiple regression analysis. The following is a summary table of the results of multiple regression between X1, X2, and X3 simultaneously to Y1.

Table 5. Summary Model Internal Factors for Pedagogic Competence

Summary Model ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.173 ^a	.030	.205	18.38135

a. Predictors: (Constant), Achievement Motivation, Professional Attitude, Work Ethics

b. Dependent Variable: Pedagogic Competence

Based on Table 5 of the Model Summary above, it is known that the value of R or the correlation coefficient is 0.173 which means that it is simultaneously correlated and the value of R square or the determination coefficient is 0.030 = 3.0%. This means that simultaneously the influence of internal factor variables (professional attitude, work ethic, and achievement motivation) on the pedagogical competencies of high school teachers in South Sulawesi is 3.0%.

Table 6 Unstandardized Coefficients Internal Factors for Pedagogic Competence

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	60.023	11.525		5.208	.000
	Professional attitude	.093	.280	.020	.331	.741
	Work Ethics	.250	.237	.078	1.051	.294
	Motivation	.156	.203	.053	.765	.445

a. Dependent Variable: Pedagogic Competence

Based on Table 6 the above Coefficients, a regression equation can be made, namely $Y1 = 60,023 + 0,93 X1 + 0,250 X2 + 0,156 X3$ states if there is no increase in values of internal factor variables X1, X2 and X3 (professional attitude, work ethic, and motivation achievement) simultaneously on variable Y1 (pedagogical

competence of high school teachers in South Sulawesi), the variable value Y1 is 60,023. The regression coefficient X1 of 0.93 states that each addition of one value to the variable X1 will give a score increase of 0.93. The regression coefficient X2 of 0.250 states that every addition of one value to the variable X2 will give an increase in the score of 0.250. X3 regression coefficient of 0.156 states that each addition of one value to the variable X3 will give a score increase of 0.156.

3.5. Internal Factors Against Professional Competence

The influence of internal factors (professional attitude, work ethic, and achievement motivation) on the professional competence of high school teachers in South Sulawesi can be seen from the results of multivariate statistical analysis, namely multiple regression analysis. The following is a summary table of the results of multiple regression between X1, X2, and X3 simultaneously to Y2.

Table 7 Summary Model Internal Factors for Professional Competence
Summary Model^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.227 ^a	.051	.203	16.63869

a. Predictors: (Constant), Achievement Motivation, Professional Attitude, Work Ethics

b. Dependent Variable: Professional Competence

Table 8 Internal factors towards Professional Competence
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	55.713	10.432		5.340	.000
	Professional Attitude	.070	.253	.017	.277	.782
	Work Ethics	.116	.215	.040	.542	.588
	Motivation	.244	.184	.092	1.323	.187

a. Dependent Variable: Professional Competence

Based on Table 7 Summary Model above, it is known that the value of R or the correlation coefficient is 0.227 which means that simultaneously correlates and the value of R square or the determinant coefficient is $0.051 = 5.1\%$. This means that simultaneously the influence of internal factor variables (professional attitude, work ethic, and achievement motivation) on the professional competence of high school teachers in South Sulawesi is 5.1%.

Based on Table 8 Coefficients above, a regression equation can be made, namely $Y2 = 55,713 + 0,70 X1 - 0,116 X2 + 0,224 X3$ stating that if there is no increase in values of internal factor variables X1, X2 and X3 (professional attitude, work ethic, and motivation achievement) simultaneously on variable Y2 (professional competence of high school teachers in South Sulawesi), variable value Y2 is 55,713. The regression coefficient X1 of 0.70 states that every addition of one value to the variable X1 will give a score increase of 0.70. The regression coefficient X2 of 0.116 states that each addition of one value to the variable X2 will give a score decrease of 0.116. X3 regression coefficient of 0.244 states that each addition of one value to the variable X3 will give an addition score of 0.244.

IV. Conclusion

Based on the results of the study, conclusions can be drawn as follows:

1. In general, internal factors (professional attitude, work ethic, and achievement motivation) that affect the competence of high school teachers in South Sulawesi are in the high category. As many as 64.77% of respondents perceive internal factors that affect the competence of high school teachers in South Sulawesi in the high category, 35.23% in the very high category, and none or 0% perceive the internal factors that affect the competence of high school teachers in South Sulawesi in the very low, low and moderate categories. The work ethic variable which has the highest level of achievement of scores is 82.20% and the professional attitude variable which has the lowest level of score achievement is 79.80% of the average achievement for all variables at 81.32%. Meanwhile achievement motivation has a score reaching 81.91%.
2. Contribution of internal factors to the competence of high school teachers in South Sulawesi: simultaneous internal factors contribute to the pedagogical competence of high school teachers in South Sulawesi by 3.0% and simultaneous internal factors contributing to the professional competence of high school teachers in South Sulawesi is 5.1 %.

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