Effect of school head integrity and communication climate on productivity through teacher work discipline in state vocational Padang City

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Abstract. The phenomenon in the study illustrates the lack of productivity of teachers in implementation of the task. This study aims to show the influences; (1) the integrity and the communication climate of principal affect the work discipline of teachers in vocational schools, (2) the principal integrity towards the work discipline of teachers in Vocational High School of Padang, (3) work discipline affects the work productivity of teacher in Vocational School. Type of research is Path analysis. The population of this study was all the teachers in vocational high school of Padang with a status of civil servants (PNS), at least one year and still active teaching. The total of populations are 795 people. The sample of the study was 266 people who chosen by using the stratified proportional random sampling technique. The research data was collected using a Likert scale questionnaire model. Data were analyzed by Pathway analysis of moderating variables. The results of the study showed that principle integrity and communication climate directly and indirectly affect productivity through teacher work discipline.

1. Introduction
Educators and education personnel have the right to obtain adequate and adequate income and welfare guarantees, awards that are appropriate to their work and work performance, and career coaching in accordance with the demands for the development of quality professionalism. Educators in this case teachers, occupy a strategic position to realize all these expectations and goals, because teachers as educators are directly involved in the learning process in the classroom and the entire process of education in schools [1]. Teachers are required to have academic qualifications, competencies, educator certificates, physically and mentally healthy, and have the ability to realize national education goals. If a number of these requirements are met, then the role of these will be able to determine the progress and decline of organizational productivity.

According to [2] said that the fulfilment of the right work by concentrating human resources and effort on work can affect organizational productivity. Productivity in organizations depends largely on the motivation of its members, where the actions of members are directed towards achieving organizational goals. Correspondingly, productivity is a function of motivation. Motivation can be positive or negative, this shows that if motivation is positive it can encourage increased work productivity. Conversely if decreased motivation can reduce work productivity.

School organizational productivity is largely influenced by teacher work productivity. Dangkua's research in [3] reports that teacher work productivity can increase between 35% through the influence...
or encouragement of the principal, and around 60% -65% is determined by the teacher's personal abilities which include teacher work motivation, teacher work discipline, teacher interpersonal relations and teacher work environment. Therefore, the product of the teacher's work activities must be the concern of the principal as the leader of the organization because the high and low productivity of the teacher's work can affect the achievement of the overall school organization goals.

Based on the data obtained from the education office of Padang city: 1) For the year 2013/2014 there were no Padang City Vocational High School teachers who fulfilled the requirements to become outstanding teachers at the level of West Sumatra Province, 2) Teachers who had obtained IV / b rank above and only 24 people, out of a total of 795 teachers, 3) Academic qualification of S.2 level of education is only 120 people from 795 teachers, 4) The average score of the results of teacher performance assessment carried out by assessor is 45 of the maximum value of 56, 5) teachers who have conducted classroom action research and wrote a new Journal of 46 teachers from 795 teachers, 6) The average results of the acquisition of the National Vocational High School level Examination in 2013 only reached 6.54. From the ideal value of 7.00, 7) graduates of vocational schools who work independently and absorbed by the business and industry world are only 30% of the total graduates, 8) graduates of vocational schools are accepted at state universities in Padang city only 10%.

The above conditions are thought to reflect the work productivity of teachers in the Padang City State Vocational School as a whole. The low teacher work productivity is thought to be strongly related to the principal's leadership integrity variables, teacher's work discipline, and the communication climate at school [4]. If this is allowed then it will have a negative impact on the teacher's work productivity in Padang City State Vocational School. Based on the symptoms that occur, it is necessary to examine what factors influence the work productivity of the teacher. This study is expected to produce smart solutions as recommendations for the implementation of preventive and corrective policies on the quality of schools in the future, especially at vocational high school in the Padang.

2. Research Methods
The type of research is quantitative research using Path analysis. This research was conducted in all state vocational high schools in the City of Padang as many as ten school. The subjects of this study were the teachers of vocational school in Padang City. The population in this study were 795 people. The sample amounted to 266 people. Data collection was carried out by giving questionnaires about integrity of the principal, communication climate and work discipline on productivity of teacher work in vocational high school of Padang. The implementation have been done in 2 months after the trial is carried out by taking questionnaire data. Research data were analyzed using path analysis techniques, description analysis, hypothesis testing [5].

Table 1. Level of Achievement of the Response of each Teacher's Work Productivity Indicator

| Indicator | Score ideal | Average | % Level of achievement | Category |
|-----------|-------------|---------|------------------------|----------|
| Planning, implementation, evaluation and follow-up | 160 | 138.9 | 86.82 | High |
| Academic achievement | 20 | 10.8 | 54.00 | Less |
| Professional Development Work | 35 | 21.6 | 61.80 | Less |
| Participation in the Scientific Forum | 10 | 7.71 | 77.70 | Medium |
| Teacher's Overall Work Productivity Score | 225 | 179.0 | 79.57 | Medium |

Source: Primary data processed
Based on the table above, each indicator of teacher productivity can be interpreted, the first indicator is planning, implementing, evaluating and following up with an achievement level of 86.82% including in the high category, the second indicator of achievement is 54.0% including low category, indicator of professional development level achievement 61.80% is included in the sufficient category, the next indicator is to participate in scientific forums, the level of achievement is 77.70%, including the adequacy category, ideal score of teacher work productivity 79.57% is included in the category enough.

2.1. Principal Integrity
Variable Principal integrity (X1) was measured through 45 items in the questionnaire with 266 respondents' affordability. Empirically found the lowest score range of 45 and the highest score is 255. Based on the results of data analysis can be stated that the average score is 185.31 with a standard deviation of 24.22, median 186.0 mode 206, with the number of class 9 and class 12. The level of achievement of each indicator can be seen in Table 2 below:

| Indicator                      | Score ideal | Average | % Level of achievement | Category |
|--------------------------------|-------------|---------|------------------------|----------|
| Commitment to Service          | 50          | 43.8    | 87.62                  | High     |
| Values                         | 50          | 42.5    | 85.00                  | High     |
| Consistent in action           | 50          | 40.3    | 80.76                  | High     |
| Firm in establishment          | 75          | 58.6    | 78.16                  | Enough   |
| Overall Principal Integrity Score | 225         | 185.3   | 82.36                  | High     |

Source: Primary data processed

Based on the table above can be interpreted each indicator of principal integrity, the first indicator of service commitment with the achievement level of 87.62% including high category, the second indicator of achievement levels of 85.00% is included in the high category, indicators are consistent in action with achievement level of 80.76% with a high category, the indicator acts on a value system with a level of achievement of 78.7%, improving ability continuously with a level of achievement of 77.5%, firm indicators in the achievement of achievement 78.16% including sufficient categories and overall indicators of integrity of principals with achievement levels of 82.36% including high category.

2.2. Communication Climate
The communication climate variable (X2), empirically found the lowest score range 44 and the highest score 220. Based on the results of the data analysis it was found that the average score was 175.06, with standard deviation 21.33, median 176.50, mode 135 and number of class 9 and length class 12, based on the results of these calculations it was found that the climate level criteria for communication with distributional trends. The level of achievement of each indicator can be described in the following Table 3:

| Indicator                                      | Score ideal | Average | % Level of achievement | Category |
|------------------------------------------------|-------------|---------|------------------------|----------|
| Planning, implementation, evaluation and follow-up | 160         | 138.9   | 86.82                  | High     |
| Academic achievement                           | 20          | 10.8    | 54.00                  | Less     |
| Professional Development Work                  | 35          | 21.6    | 61.80                  | Less     |
| Participation in the Scientific Forum          | 10          | 7.71    | 77.70                  | Medium   |
2. Teacher’s Overall Work Productivity Score

| Score ideal | Average | % Level of achievement | Category |
|-------------|---------|------------------------|----------|
| 225         | 179.0   | 79.57                  | Medium   |

Source: Primary data processed

Based on Table 5, the above can be interpreted as each indicator of the communication climate, the first indicator of trust with a level of achievement of 85.15% including good category, the second indicator of joint decision making level of achievement 77.65% is included in the category enough, honesty indicator achievement level 77.64% with enough categories, Downward communication indicator of achievement level 78.00% with adequate category, communication openness indicator above the level of achievement 76.08% with sufficient categories and indicators of attention to high-performance goals achievement level of 80.86% with good category. Overall communication climate score 79.57% with sufficient categories.

2.3. Description of Variable Work Discipline

The variable Teacher discipline variable (Y1), as many as 43 questionnaire statement items with 266 respondents’ affordability empirically the range of cooperative discipline scores with the lowest score of 45 and the highest score 215. The level of achievement of teacher work discipline can be seen in Table 4 below:

| No | Indicator                                                                 | Score ideal | Average | % Level of achievement | Category |
|----|---------------------------------------------------------------------------|-------------|---------|------------------------|----------|
| 1  | Obedience of teachers to carry out tasks                                  | 70          | 56.59   | 80.85                  | High     |
| 2  | Awareness of teachers advancing teaching tasks                            | 40          | 33.90   | 84.7                   | High     |
| 3  | Teacher responsibility in the field of student teaching and coaching      | 50          | 43.06   | 86.11                  | High     |
| 4  | Exemplary teacher in teaching                                             | 55          | 46.66   | 84.84                  | High     |
| 5  | Teacher’s Ideal Work Discipline Score                                    | 215         | 180.1   | 83.81                  | High     |

Source: Primary data processed

Based on Table 4 above, each indicator of work discipline can be interpreted, the first indicator of obedience of teachers to carry out tasks with the level of achievement of 80.85% with a good category of second indicators teacher awareness of advancing teaching tasks achievement level 84.7% with high category, third indicator of teacher responsibility in the field of student teaching and coaching the achievement level of 86.11% is in the high category, and the teacher's exemplary indicators in the teaching level of achievement are 46.66% in the high category, overall the score of teacher work discipline with 83.81% achievement in the high category.

3. Testing Requirements

3.1. Normality

Normality testing aims to test the assumption that the distribution of samples from instrument the damage samples comes from a population that is normally distributed, the normality testing technique used in this study is Kalmogorov Smirnov, with the criteria used is if Asymsig obtained is greater than 0.05 then the null hypothesis is accepted means the population is distributed normal.
### Table 5. Summary Analysis of Normality Tests (N = 266)

| No. | Variables              | KS  | Sign. | Conclusion |
|-----|------------------------|-----|-------|------------|
| 1.  | Productivity           | 1.273 | 0.078 | Normal     |
| 2.  | Principal Integrity    | 1.281 | 0.075 | Normal     |
| 3.  | Communication Climate  | 1.304 | 0.067 | Normal     |
| 4.  | Work discipline        | 0.796 | 0.551 | Normal     |

Notes: $\alpha = 0.05$

Data homogeneity testing was conducted to find out whether the research sample came from homogeneous population. To test homogeneity was done by Levene Statistic analysis. Analysis of variant homogeneity is done to determine whether the assumption that all three variables have the same (homogeneous) variant. The results of homogeneity can be seen in Table 6.

### Table 6. Test of Homogeneity of Variances

|                        | Levene Statistic | df1 | df2 | Sig.  |
|------------------------|------------------|-----|-----|-------|
| Principal Integrity    | 1.623            | 4   | 261 | 0.169 |
| Communication Climate  | 0.812            | 4   | 261 | 0.518 |
| Work Discipline        | 0.863            | 4   | 261 | 0.487 |
| Productivity           | 1.017            | 4   | 261 | 0.399 |

Source: Primary data processed

Table 6 can be seen that the magnitude of the Levene Statistic integrity of the principal (X1) is 1.623 while the probability or significance is 0.169, the communication climate (X2) is 0.812 while the probability is 0.518 which means greater than 0.05, the work discipline is 0.863 with a probability of 0.487, is accepted which means the assumption that the population variance is identical (homogeneous) is acceptable.

### 3.2. Hypothesis

The findings illustrate that the integrity of the principal influences work productivity through work discipline and teacher achievement motivation in Padang City State Vocational School. Communication climate influences productivity through teacher work discipline in Padang City State Vocational School. Principal integrity, communication climate, work discipline and achievement motivation together have a direct effect on teacher work productivity in Padang City State Vocational School.

### 3.3. Path Analysis Model

The direct influence of each variable, namely the variable principal integrity (X1) of teachers in Padang City State Vocational High School, Communication climate (X2) influences teacher achievement motivation (Y2) at Padang City State Vocational School. The principal's integrity (X1) affects the productivity (Y) of teacher work in the State Vocational School of Padang City. Communication climate (X2) affects the productivity (Z) of teacher work in City Vocational Schools Padang. Work Discipline (X3) influences the work productivity of teachers in Padang City State Vocational School.

Indirect influence principal integrity (X1) of schools affects work productivity (Z) through Padang work discipline (Y1). What is the integrity of the principal (X1), Principal Integrity (X1) communication climate (X2) work discipline (Y1) (Y2) jointly influence the work productivity (Z) of teachers in Padang City State Vocational School.
The findings show that the principal's integrity affects work productivity through work discipline and teacher achievement motivation in Padang City State Vocational Schools because the F count > F table means that integrity through work discipline affects the productivity of the principal. Integrity is the principal capital of the principal, but at the same time the capital that is rarely owned by the leader. This is the biggest tragedy in leadership. Lead researcher [6], in their book entitled Credibility: How Leaders Gain and Lose It, Why People Demand It, reports the results of their research for almost twenty years from surveys of thousands of professionals from four continents that there are two tens of characteristics of admired leaders.

Brophy features a list of motivational strategies used by the teacher to give students stimuli to be productive in learning 1) linkages to environmental conditions, which contain sportsmanship environmental conditions, conditions of level of difficulty, meaningful learning conditions, and meaningful strategy makers, 2) expectations to succeed, to contain the success of the program, the purpose of teaching, remedial socialization from outside awards that can contain gifts, positive competencies, value of learning outcomes [7,8].

4. Conclusion
Based on the results of the study, some conclusions can be drawn, namely the integrity of the principal influences on the work discipline of teachers in the City Vocational School the value of t count > t table. The integrity of the principal influences the work productivity of teachers in the State Vocational School of Padang City the value of t count > t table. Communication climate affects the work discipline of teachers in the State Vocational School of Padang City, the value of t counts > t table. Work discipline affects the work productivity of teachers in the State Vocational School of Padang City the value of t count > t table.

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