The impact of the internet technology on teacher competence and student morality

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Abstract. This study is inspired by the importance of detection the impact of internet technology on teacher competence and student morality, for the reason that in digital era life cannot be separated from the development of information technology. Now information technology cannot be separated from the internet technology. The internet technology can be used for educational purposes. This research was a qualitative descriptive study, with the instrument used was a questionnaire to 1,038 respondents. Consisting of teachers, high school students, college students, parents and the general public. The results of the study were: 1) almost half of the respondents stated that the student morality improved, while the majority stated the opposite, 2) most respondents stated that teacher competence was getting better, with indicators: professional, increased education level, creative, innovative, good in teaching, achieving, able to compete. It can be concluded that internet technology has an impact on teacher competence and student morale with data: teacher competence is well, while the student morality is medium.

1. Introduction
The digital era is a period marked by the existence of digital technology. The dominant technology in this era is internet technology. The internet is an integral part of life. The internet technology contains positive and negative sides [1].

One positive aspect of the internet is can be used for educational purposes. The education field is facilitated by internet [2]. But the negative side also exists, including shifting human labor in several jobs, including in the world of education. With the emergence of internet in digital era, how is the condition of education, especially highlighting the problem of teachers and students. Does the internet technology in the digital era have a positive impact on teachers in increasing their professionalism? And does internet technology also have a positive impact on students morality? These two important questions are revealed considering that in this digital era life cannot be separated from the development of information technology in the form of internet networks. The education world cannot be separated from the internet technology.

2. Methods
This study uses a qualitative approach, with descriptive methods. Data collection techniques through surveys with the instruments used were questionnaires. Participants involved were 1,038 respondents in West Java, consisting of the general public, teachers, students, high school students and parents. The details of the number of participants by type are as follows:
Table 1. Details of the number of participants by type.

| No | Type of Participant | Total |
|----|---------------------|-------|
| 1. | General public      | 410   |
| 2. | High School Student | 219   |
| 3. | College student     | 244   |
| 4. | Teacher             | 90    |
| 5. | Parents             | 75    |
|    | Total               | 1038  |

The data collected is processed by calculating the answers from the respondents then calculating the percentage and interpreting it into the following interpretations.

Table 2. Data interpretation.

| %       | Interpretation     |
|---------|-------------------|
| $x = 0$ | No one            |
| $0 < x < 25$ | Fraction           |
| $25 < x < 50$ | Almost half       |
| $x = 50$ | Half              |
| $50 < x < 75$ | Most of the       |
| $75 < x < 100$ | Almost entirely   |
| $x = 100$ | All of it         |

After the data interpretation is obtained, the data is summarized into the following categories:

Table 3. Conclusion of data.

| %     | Conclusion |
|-------|------------|
| 0-20% | Very bad   |
| 21-40%| Bad        |
| 41-60%| Medium     |
| 61-80%| Well       |
| 81-100%| Very well  |

3. Results and discussion

3.1. The teacher competence

Data regarding this matter is collected from the questionnaire. The choice of answers requested from respondents is "Yes" or "No". For the answer "Yes" the results of the questionnaire are obtained as described below, while the answer "No" is not presented here. To find out the answer "No" from the respondent can be calculated by the following formula.

Number of respondents – answer "Yes"

The number of respondents by type can be seen in table 1.
### Table 4. The opinions of respondents who stated the answer "Yes" about the teacher competence.

| No | Statement                                                                 | General public | Teacher | College student | High School Student | Parents | Total | %  | Interpretation |
|----|--------------------------------------------------------------------------|----------------|---------|-----------------|---------------------|---------|-------|----|----------------|
|    |                                                                         |                |         |                 |                     |         |       |    |                |
| 1. | Indonesian teachers are increasingly professional                       | 289            | 67      | 148             | 118                 | 48      | 670   | 61 | Most of the   |
| 2. | Indonesian teachers are increasing their education level                | 350            | 80      | 204             | 159                 | 59      | 852   | 82 | Almost entirely|
| 3. | Indonesian teachers are increasingly creative                           | 331            | 65      | 179             | 147                 | 57      | 779   | 75 | Most of the   |
| 4. | Indonesian teachers are increasingly innovative                        | 311            | 71      | 181             | 150                 | 49      | 762   | 73 | Most of the   |
| 5. | Indonesian teachers are getting better at teaching                       | 312            | 74      | 163             | 127                 | 51      | 727   | 70 | Most of the   |
| 6. | Indonesian teachers are increasingly achieving                          | 298            | 73      | 152             | 146                 | 48      | 717   | 69 | Most of the   |
| 7. | Indonesian teachers are increasingly able to compete                    | 281            | 70      | 151             | 140                 | 45      | 687   | 66 | Most of the   |
|    | Total                                                                    | 496            |         |                 |                     |         |       |    |                |
|    | Average                                                                  |                |         |                 |                     |         | 496   | 71 | Most of the   |
|    | Conclusion                                                               |                |         |                 |                     |         |       |    |                |

Based on data in the table 4 it is known that most of the respondents state the teacher competence is positive. It’s can be conclude that internet has a positive impact [3,4]. Appropriate use of the internet can provide benefits, but on the contrary if one uses it, it will have a negative impact. Internet technology depends on the way and the user [5]. It’s means that the development of internet technology has a positive impact on teacher competence, characterized by the increasingly professional condition of Indonesian teachers [6,7], increased education level, creative [8], innovative, good in teaching, achieving, and able to compete. The impact of the internet on the professionalism of teachers is that teachers can carry out the learning process with distance learning using e-learning [9]. E-learning has come to define any dissemination of educational knowledge over the Internet. E-learning basically the integration of various technologies. One of the e-learning models is a model by applying cache management and cloud computing with Web services [10].
Figure 1. E-Learning Service Based on Cache Strategy and Cloud Computing.

From these data it can be concluded that the teacher competence is good.

3.2. The student morality

The results of this research were obtained from calculating the answer "Yes" from the respondents that had been stated in the questionnaire. The answer "No" can be known by calculating through the formula. The results of the respondents' answers are as follows.

**Table 5.** The opinions of respondents who stated the answer "Yes" about the students morality.

| No | Statement                                                                 | General public | Teacher | College student | High School Student | Parents | Total | % | Interpretation |
|----|---------------------------------------------------------------------------|----------------|---------|------------------|---------------------|---------|-------|---|----------------|
| 1. | The behavior and morals of elementary students are getting better        | 231            | 58      | 41               | 52                  | 43      | 425   | 41| Almost half    |
| 2. | The behavior and morals of junior high school students are getting better| 200            | 30      | 21               | 38                  | 40      | 329   | 32| Almost half    |
| 3. | The behavior and morals of high school students are getting better       | 214            | 28      | 32               | 85                  | 43      | 402   | 39| Almost half    |
| 4. | College students' behavior and morals are getting better                 | 284            | 53      | 91               | 152                 | 53      | 633   | 61| Most of the    |
| Total |                                                                 | 173            |         |                  |                     |         |       | 43| Almost half    |
| Average |                                                                 | 43             |         |                  |                     |         |       |   | Medium        |

Conclusion
Based on table 5. It can be seen that almost half of the respondents stated that the students' morality getting better, this is due to the negative influence of technology. This also means that most of them stated that the student morality is not getting better, both elementary, middle and high school students and college students. Based on these data it can also be stated that internet technology has more negative effects than the positive impact on student morality [11-13]. To anticipate the negative impact of technological development, moral education is very necessary to be given to students [14]. From this data it can be concluded that the moral condition of students in this digital era is medium.

4. Conclusion
Through this research, it can be concluded that the internet has impact to teacher competence and student morality with sign: 1) the condition of teacher competence is good, 2) the moral condition of students is moderate.

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