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Online Microteaching Practices: Developing Social Competency Instruments with The Concept of Netiquette

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Abstract. Online lectures during a pandemic require the implementation of online microteaching so that there is a need for adjustment of the assessment instrument during implementation which is carried out online. This study aims to produce a student teacher candidate social competence instrument with a valid and reliable netiquette concept approach. Trials were carried out three times, namely: initial trials in four schools with 12 student teacher candidates as the trial subjects, then continued with operational field trials in 15 schools with 100 students as the trial subjects. The analysis used was confirmatory factor analysis and descriptive analysis. The results showed that social competence with the netiquette concept of prospective teacher students included three indicators, namely the ability to communicate that did not contain vulgar, rude, confrontational elements and contributed to the development of education through all forms of information. The results of the confirmatory factor analysis showed that all values $t_{count} > 1.48$ and the reliability is 0.72. The resulting model statistics show which model fit ($p = 0.12412$). The results of the descriptive analysis show that the indicators of communication skills do not contain vulgar, rude, confrontational elements and contribute to the development of education through all forms of information that are categorized as good.

Keywords: Microteaching, Social Competence, Preservice teacher, Netiquete.

INTRODUCTION

Current student teacher candidates will have a huge impact on the development of the quality of education in the future. There are several criticisms and suggestions by tutor teachers in partner schools related to the lack of students' ability to practice teaching. The criticism and suggestions from the civil service teacher are generally addressed to students who are conveyed through field supervisors. Most of the complaints submitted by the pamong teacher are very contradictory to the scores given by the tutor teachers to students. Students who did practice teaching scored good on average with only a fraction of the students who did not score well. The discrepancy that occurs cannot be separated from the lack of quality of the assessment instruments used [1].

The main problem in measuring student competence is the instrument. In preparing the instrument, it is necessary to study supporting theoretical analysis so that the instruments used are of good quality and have empirical evidence regarding the validity of the score. The validity of these scores will represent the accuracy and accuracy of an

instrument in making measurements or have advance and logical validity [2]. In addition, the instrument also has construct validity and criteria-based validity. To obtain content validity and logical results, a rational analysis is carried out or through professional judgment. In preparing the items of a good instrument, it is necessary to conduct a theoretical study which is then followed by a factor analysis. The results of the factor analysis will show the quality of the instrument [3].

The measurement results can be trusted if in various times the measurement of the same subject group is obtained relatively the same results, as long as the aspects measured in the subject have not changed [4]. Empirically, the level of reliability is indicated by a number called the reliability coefficient. The higher the correlation coefficient, the better the consistency [5] between the results of the two tests and the more reliable the results of the two tests were said to be.

Competence is a combination of knowledge, skills, and traits [6]. competence is The capacity to perform specific activities will always entail some combination of knowledge / skills / disposition / values which when analyzed almost always looks like some combination of generic or key competencies [7]. Some people interpret behavioral or behavioral competencies as a measure of whether a person can carry out his duties well. A person's competence reflects the actions, behavior and skills in carrying out a task. The general areas of a teacher's competence include knowledge and skills about learning (pedagogic competence), attitude (personality competence), and mastery of the field of study (professional competence) [8].

One of the competencies that a prospective teacher must have is social competence [9]. This competence is very much needed because it interacts directly in everyday life and can be directly monitored by students. Thus social competence must be possessed by every prospective teacher. The learning process is focused on five main elements, namely the relationship or interaction between individuals, interest in learning, development of goal constructs, emphasis on achievement, and the construct of the instrument [10]. Of the five elements, the first element is interpersonal relationships, namely the relationship between teachers and students, between students and other students, and between teachers and other teachers. Therefore, social competence is needed for the teaching profession.

Communication may be meaningless if seen in passing, but when viewed as a process, communication plays an important role in delivering messages [11]. Communication is more of a weather that occurs from a variety of complex and changing variables. This change is always a process so that communication is needed. The teacher as someone who always delivers messages needs to understand and have good communication skills [12]. Communication of a teacher is not only with students but also with other teachers, school principals or other related parties. To be able to communicate well [10], the teacher must be able to use good language, master the content of the material, understand who is communicating with, and have good body language [13].

Being religious, having a personality, the ability to self-actualize, as well as having the attitude and ability to develop educational professionalism is one of the competencies that must be possessed by a teacher. The teacher's job as a profession can be manifested as a position but requires certain skills and has special ethics for that position and service to the community. Services in the world of education must be provided as well as possible to the community as users of education and also to the public as consumers of education [14]. This competence requires teachers to be able to adapt to the work environment [15], be able to assess their own performance, be able to work independently and be able to work together. This ability is related to the work environment which must be strengthened by the ability to communicate. The communication carried out by the teacher both in the classroom and outside the classroom must show two-way communication [16] in simple language. This communication competence [17] has a very important role because communication is the teacher's main tool in conveying information to students. Poor communication skills from a teacher cause less effective learning that occurs in the classroom [7].

This communication is also very important for socializing and adapting to the surrounding environment [8]. However, prospective teachers are required to be able to socialize and adapt to the school environment and outside the school that the success of the teaching and learning process is also influenced by the teacher and the learning environment, both physical and non-physical, both family and community. and the school environment [18].

From the study above, it can be concluded that the social competence of prospective teacher students is a person's ability to communicate both in the school environment [15] and outside the school both with elements of students, other teachers, school principals, and the wider community and their contribution to education at large. This competency includes cooperation with friends and the community outside of school [19], communication with students, other teachers, and the community outside of school, and contributing to the development of education.

The objectives to be achieved in this study are (1) to obtain indicators that cover the social competence of prospective teacher students, (2) to obtain a detection instrument for student teacher candidates' social competences, and (3) to obtain social competency profiles of student teacher candidates.

METHODOLOGY

This research will be conducted at the University of PGRI Yogyakarta, Faculty of Teacher Training and Education in the Mathematics Education Study Program and Elementary Education Study Program. This research will be shown in the even semester of the 2019/2020 school year.

The trial subjects used in this development research are divided into three stages. The initial trial was carried out in four schools, the subject of the trial was 12 student teacher candidates who were doing PPL II. The main field trials were carried out in 8 Schools, the test subjects are 100 student teacher candidates who are doing PPL II. Operational field trials were carried out in 15 schools, the subjects of the trials were 200 prospective teacher students who were doing PPL II.

The type of data in this study is quantitative and the data collection techniques used are observation and interview guidelines. The first analysis is Delphi, which is used to determine the indicators that contribute to the main competency. This analysis was carried out in two rounds. The second analysis is the correlation analysis, which is used to determine the inter-rater correlation. The third analysis is confirmatory factor analysis, which is used to determine the level of validity and reliability of each instrument. The analysis used in this third stage is descriptive analysis or profile analysis. This analysis is used to describe the profile of prospective teacher students whose data is taken by this instrument.

RESULT AND DISCUSSION

- **Result**

The social competence instrument of prospective teacher students consists of three indicators and 15 instrument items. Indicator A (the ability to work together) consists of three descriptors and three instrument items, indicator B (communication skills) consists of nine descriptors and nine instrument items, and indicator C (the amount of contribution to education development) consists of three descriptors and three instruments.

Analysis for inter-rater correlation using product moment correlation. This correlation analysis was conducted to determine the magnitude of the inter-rater correlation coefficient on each indicator of the student teacher's pedagogical competence. The result is that all correlations are greater than 0.7 (the required minimum correlation coefficient), so that the rater is eligible for the assessment.

Election The instrument item is done by calculating the correlation between the item score and the total score (item-total correlation). If the correlation coefficient is less than 0.3 then the instrument item is declared invalid. The validation that is carried out includes face validity and logical validity by asking the opinion of the experts (judgement expert). Reliability test was carried out using an internal consistency approach whose analysis was with the help of SPSS 20.0.

There is no item-total correlation coefficient that is less than 0.3 so that no instrument items are dropped. All experts claim that the face validity and logic are justified [7]. The reliability coefficient is more than 0.7 so that the instrument has met the requirements.

Analysis for inter-rater correlation using product moment correlation. This analysis was carried out to determine the magnitude of the inter-rater correlation coefficient on each indicator of the student teacher candidate's social competence. The result is that all existing correlations are greater than 0.7 (the required minimum correlation coefficient), so that the rater meets the requirements to make an assessment [19].

KMO analysis is an analysis to measure the adequacy of sampling. The price of KMO is obtained from comparing the observed correlation coefficients with the magnitude of the partial coefficients. This analysis was carried out with the SPSS program. The results of the KMO analysis show that the data for the two raters get a KMO price above 0.70 which is good.

Normality analysis was performed to determine the normality of the data obtained using the Kolmogorov-Smirnov test. The results of the analysis show that the data from both raters, for each indicator, show normal data.

Multicollinearity test was performed using SPSS 10.00. The results show that the correlation between indicators, both the first rater and the second rater, does not exceed 0.80 so that the data does not occur

multicollinearity.

The conformatory factor analysis was carried out to see the validity and reliability of the instruments compiled. The model statistics obtained from the confirmatory factor analysis were that the value $p = 0.12412$. Because the p value > 0.05 , the model is fit. And the statistical model obtained from the confirmatory factor analysis is that the value of $p = 0.2785$. Because the p value > 0.05 , it can be stated that the model is fit.

The final structure of the student teacher candidate student social competence detection instrument results from operational field trials with confirmatory factor analysis did not change from the initial structure.

From the results of testing and data analysis, finally the social competence instruments of prospective teacher students consisted of three indicators and 15 instruments. Indicator A (ability to work together) consists of three descriptors and three instrument items, indicator B (communication skills) consists of nine descriptors and nine instrument items, and indicator C (the amount of contribution to education development) consists of three descriptors and three instruments.

- **Discussion**

The social competence instrument of prospective teacher students consists of three indicators and 15 instrument items. Indicator A (ability to work together) consists of three instruments, indicator B (communication ability) [20] consists of nine instruments, and indicator C (the amount of contribution to education development) consists of three instruments.

The results of the confirmatory factor analysis showed that the manifest variable A (cooperation) is a valid and reliable manifest variable to measure the latent variable of social competence. The results of the descriptive analysis conducted showed that the social competence indicators of student teacher cooperation were categorized as good. This shows that student teacher candidates have cooperation, help each other, and serve the community well.

The results of the descriptive analysis conducted showed that the social competence for communication indicators of student teacher candidates was in the good category. This shows that prospective teacher students are good at communicating with parents of students, communicating ideas, communicating research results, making rumors, communicating with superiors, communicating with experts, communicating with work partners, and communicating in Indonesian. The results of the confirmatory factor analysis showed that the manifest variable C (contribution to educational development) is a valid and reliable manifest variable to measure the latent variable of social competence.

The results of the descriptive analysis conducted showed that the social competence indicators of the contribution to the educational development of student teacher candidates were categorized as good. This shows that the contribution of prospective teacher students to educational development has been good by participating in educational development programs, analyzing educational problems, and developing alternative problem solutions.

Some of the characteristics of this social competency instrument are new sub-competencies and items that are needed to reveal the social competence of a prospective teacher. The existing instruments have not adopted sub competencies with clear descriptors so that the relevant instruments have not been able to reveal the real social competences of prospective teacher students and what is needed to become real teachers. These sub-competencies are cooperation, communication, and contribution to educational development.

The implications of this research methodology include the usefulness or contribution of research results to research methods, to what extent the research results can help research methods in the field. This research was conducted in order to make instruments for the pedagogic, personality, and social competences of prospective teacher students so that the methodological implications are how far this instrument was tested based on existing methods or how far the research contributed to field implementation [21].

Research steps and analysis steps that have been carried out in this study produce instruments that have met the requirements of both construct, validity and reliability. The results of this study strengthen us that in arranging instruments, certain rules must be used in order to get a reliable instrument. That way, the data obtained will give reliable results.

The theoretical implication of this research contains the usefulness of the research results on the theory. To what extent the research results can support existing theories or may find new theories. Of course, related to the pedagogic, personality, and social competences of student teacher candidates.

This study found that the competencies that must be displayed by prospective teacher students in addition to professional competences (field skills) are also pedagogical, personality, and social competencies. Pedagogic competencies consist of six sub competencies, namely the ability to understand the potential of students, the ability to understand how students learn, the ability to give job descriptions to students, the ability to plan educational learning, the ability to carry out teaching and learning interactions in class, and the ability to evaluate. Personality Competencies consist of four sub competencies, namely steady personality, mature personality, noble personality, and independence. Meanwhile, social competence consists of three sub competencies, namely cooperation, communication, and contribution to education development.

The implication of this policy contains the usefulness of research results on the implications in the field. To what extent the research results can help implementation in the field. This research is in order to make pedagogic, personality, and social competency instruments of student teacher candidates so that the policy implication is to what extent the benefits of this instrument can help the implementation of the competency evaluation of student teacher candidates.

This instrument can help universities that will know or evaluate the pedagogic competence, personality, and social competence of student teacher candidates can use it. With 4 Likert scale, the tertiary institution will easily classify the pedagogical, personal, and social competences of prospective teacher students into the categories of very good, good, sufficient and lacking.

These results can be used as input for evaluating. Which competencies are lacking and which are already good, so that they can be improved or improved in the learning process on campus. The results of the descriptive analysis that have been carried out in this study have produced a profile of prospective teacher students, so that it is easy to see competencies that are already good and competencies that still need to be improved.

The instrument produced in this study when compared to other instruments is much more complete. In addition, the scoring model is much easier. To get more maximum results, the score generated by this instrument can be analyzed with profile analysis which finally gets the profile of the student teacher candidate. With this instrument, civil service teachers will not find it difficult to assess the social competence of students who are carrying out teaching practices. Besides being easy to use, the instruments used are also complete in order to reveal the social competences of prospective teacher students. With the disclosure of the social competence of prospective teacher students through an assessment with this instrument, it is expected that gaps will occur between the students' values in teaching practice, especially social competence, and the reality in the field can be resolved. This is because the supervisor teacher does not hesitate in assessing the competence of student teacher candidates.

CONCLUSION

The conclusions that can be drawn from this research are (1) the indicators that cover the personality competencies of prospective vocational school teachers in theory subject are the ability to work together, the ability to communicate, and the contribution to educational development (2) the quality of the research results is indicated by their validity 0.85-0.91 and the reliability is 0.82 and the model statistics obtained for all competencies are fit because of the value $p > 0.05$. (3) the social competency profiles of prospective teacher students as measured by this instrument are the ability to work together, the ability to communicate, and contribute to educational development, all of which are in the good category. In line with the above conclusions, it is suggested (1) this research should not be carried out by mass trials so that other institutions that will use this instrument need to see the suitability of the study program and the subjects being handled. (2) Educational institutions that produce teacher candidates should measure the competence of their students before they graduate. (3) measurement should be done two semesters before the student graduated so that there are still two semesters to improve it. (3) before taking the data, the rater must be given a correct understanding of how to use this instrument. (4) the use of this instrument requires accuracy, time, and documentation that must be evaluated, and (5) even though this instrument is in the form of a Likert scale, data collection needs to be completed with an interview for more in-depth results.

The dissemination of the research results in the form of teacher competency instruments for prospective teacher students is (1) although the test subjects are limited, the instruments produced in this study can be used in other institutions, of course with adjustments. (2) agencies that provide professional education in measuring the competence

of students who will graduate may also use this instrument. (3) The agency that will hold the selection to get novice teachers can also use this instrument to determine social competence. (4) further development of the social competency instruments of teacher candidate students in the field of teacher training is the development of instruments for special field of study education. For example instruments for the fields of mathematics, engineering, language, social sciences, economics and so on.

REFERENCES

- [1] J. Vogelzang and W. F. Admiraal, "Classroom action research on formative assessment in a context-based chemistry course," *Educ. Action Res.*, vol. 25, no. 1, pp. 155–166, 2017, doi: 10.1080/09650792.2016.1177564.
- [2] D. Westreich, J. K. Edwards, C. R. Lesko, S. R. Cole, and E. A. Stuart, "Target Validity and the Hierarchy of Study Designs," *Am. J. Epidemiol.*, vol. 188, no. 2, pp. 438–443, 2019, doi: 10.1093/aje/kwy228.
- [3] I. W. Widiana, I. G. N. Japa, I. M. Suarjana, and K. Sujendra Diputra, "The Students' Ability to Solve Realistic Mathematical Problems through Polya Type Problem Solving Learning Model," *J. Educ. Learn.*, vol. 12, no. 3, p. 399, 2018, doi: 10.11591/edulearn.v12i3.4526.
- [4] S. Hayati and L. Lailatussaadah, "Validitas Dan Reliabilitas Instrumen Pengetahuan Pembelajaran Aktif, Kreatif Dan Menyenangkan (Pakem) Menggunakan Model Rasch," *J. Ilm. Didakt.*, vol. 16, no. 2, p. 169, 2016, doi: 10.22373/jid.v16i2.593.
- [5] M. (Minye) Tang and S. Venkataraman, "How patterns of past guidance provision affect investor judgments: the joint effect of guidance frequency and guidance pattern consistency," *SSRN Electron. J.*, 2016, doi: 10.2139/ssrn.2755796.
- [6] C. Junge, P. M. Valkenburg, M. Deković, and S. Branje, "The building blocks of social competence: Contributions of the Consortium of Individual Development," *Dev. Cogn. Neurosci.*, vol. 45, no. January, 2020, doi: 10.1016/j.dcn.2020.100861.
- [7] S. Hukkelberg, S. Keles, T. Ogden, and K. Hammerstrøm, "The relation between behavioral problems and social competence: A correlational Meta-analysis," *BMC Psychiatry*, vol. 19, no. 1, pp. 1–14, 2019, doi: 10.1186/s12888-019-2343-9.
- [8] M. J. Huijbers *et al.*, "Teacher Competence in Mindfulness-Based Cognitive Therapy for Depression and Its Relation to Treatment Outcome," *Mindfulness (N. Y.)*, vol. 8, no. 4, pp. 960–972, 2017, doi: 10.1007/s12671-016-0672-z.
- [9] J. P. Stichter, M. J. Herzog, S. P. Kilgus, and A. M. Schoemann, "Exploring the Moderating Effects of Cognitive Abilities on Social Competence Intervention Outcomes," *Behav. Modif.*, vol. 42, no. 1, pp. 84–107, 2018, doi: 10.1177/0145445517698654.
- [10] J. König, D. J. Jäger-Biela, and N. Glutsch, "Adapting to online teaching during COVID-19 school closure: teacher education and teacher competence effects among early career teachers in Germany," *Eur. J. Teach. Educ.*, vol. 43, no. 4, pp. 608–622, 2020, doi: 10.1080/02619768.2020.1809650.
- [11] D. Kim, "A study on the influence of Korean Middle School Students' relationship through science class applying stad cooperative learning," *J. Technol. Sci. Educ.*, vol. 8, no. 4, pp. 291–309, 2018, doi: 10.3926/jotse.407.
- [12] M. T. Munir, S. Baroutian, B. R. Young, and S. Carter, "Flipped classroom with cooperative learning as a cornerstone," *Educ. Chem. Eng.*, vol. 23, pp. 25–33, 2018, doi: 10.1016/j.ece.2018.05.001.
- [13] A. Ariyanti, "EFL Students' English Language Development: In Participation of International Exchange Program," *IJELTAL (Indonesian J. English Lang. Teach. Appl. Linguist.)*, vol. 4, no. 2, p. 309, 2020, doi: 10.21093/ijeltal.v4i2.492.
- [14] D. Mochon and J. Schwartz, "The Importance of Construct Validity in Consumer Research," *J.*

- Consum. Psychol.*, vol. 30, no. 1, pp. 208–214, 2020, doi: 10.1002/jcpy.1145.
- [15] C. Oonk, J. T. M. Gulikers, P. J. den Brok, R. Wesselink, P. J. Beers, and M. Mulder, “Teachers as brokers: adding a university-society perspective to higher education teacher competence profiles,” *High. Educ.*, vol. 80, no. 4, pp. 701–718, 2020, doi: 10.1007/s10734-020-00510-9.
- [16] M. S. Kumar, S. Krishnamurthy, N. Dhruve, B. Somashekar, and M. R. Gowda, “Telepsychiatry Netiquette: Connect, Communicate and Consult,” *Indian J. Psychol. Med.*, vol. 42, no. 5_suppl, pp. 22S-26S, 2020, doi: 10.1177/0253717620958170.
- [17] B. Fauth *et al.*, “The effects of teacher competence on student outcomes in elementary science education: The mediating role of teaching quality,” *Teach. Teach. Educ.*, vol. 86, p. 102882, 2019, doi: 10.1016/j.tate.2019.102882.
- [18] D. W. Sihadi, H. Sofia, N. Yuliani, and S. Agus, “The effects of green schooling knowledge level and intensity of parental guidance on the environmental awareness of the early age student,” *Educ. Res. Rev.*, vol. 12, no. 5, pp. 251–257, 2017, doi: 10.5897/err2015.2608.
- [19] S. Greiff, D. V. Holt, and J. Funke, “Perspectives on problem solving in educational assessment: Analytical, interactive, and collaborative problem solving,” *J. Probl. Solving*, vol. 5, no. 2, pp. 71–91, 2013, doi: 10.7771/1932-6246.1153.
- [20] A. Efriani, R. I. I. Putri, and Hapizah, “Sailing context in pisa-like mathematics problems,” *J. Math. Educ.*, vol. 10, no. 2, pp. 265–276, 2019, doi: 10.22342/jme.10.2.5245.265-276.
- [21] D. G. Erbil, “A Review of Flipped Classroom and Cooperative Learning Method Within the Context of Vygotsky Theory,” *Front. Psychol.*, vol. 11, no. June, pp. 1–9, 2020, doi: 10.3389/fpsyg.2020.01157.