3rd Malikussaleh International Conference on Multidiciplinary Studies 2022 (3rd MICoMS 2022)

IINTERNATIONAL CONFERENCE PROCEEDINGS 00044 (2022) |DOI: https://doi.org/10.29103/micoms.v3i.208
E-ISSN: 2963-2536

Perceptions of Transferrable Skills of Chemistry Teacher Candidates in the Utilization of Learning ICT

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ABSTRACT
Transferable skills are the core competencies needed to apply basic skills and problem-solving skills to make the environment one of the main elements of education policy. This research was conducted at the Chemistry Education Study Program, at Malikussaleh University in September and November 2022. This research aims to: Know the perceptions of prospective teachers regarding the transferable skills they have in utilizing ICT for learning. This type of research is qualitative descriptive research. The subjects of this research are students in the Chemistry Education Study Program with the object of research namely Perception of Transferable skills. The data collection techniques used are questionnaires and interviews in utilizing ICT learning based on aspects of transferable skills. The data analysis carried out for this study was to process and describe data with descriptive statistics. Measuring the score of the questionnaire data results is calculated using a Likert scale measurement scale. The results obtained from this study, namely students' perceptions of their transferable skills indicate that the perceptions of prospective teachers are more prominent in the aspects of collaboration and communicating with students. As for the characteristics of mastering digital literacy, future teachers still feel that they are not optimal in utilizing digital technology, which is now widespread and widespread in the world of education.

Keywords: *Perceptions, Transferrable skills, ICT, Chemistry Teacher.*

1. INTRODUCTION

The 21st century is open to all change fundamental[1]. One of them is in the field of technology information, especially in the field of social media[2]. Development of this impact on style life and needs forming society a society in need of Skills and competence for utilizing potency technology up to date[3]. Development technology could be utilized in field education specifically in the activity process study teach for reach destination education. Because it is necessary skills needed in the 21st century, including skills in study and innovation, skills use technical information and media[1]. Skills this very important for professional teacher candidates.

Professional teachers are needed to prepare the participant for quality education. Teacher's duties as an educator professional are planning and carrying out the learning process, doing evaluation learning, guiding and practicing students, as well To do study and devotion to the Public[4], in particular for teachers candidates. The role of the teacher is very needed and is a factor important in the effort to increase the quality of child education. In Thing this, the teacher does not only dominate complex skills, but also possible skills transferred that are important because characteristics skills they need initiative, flexibility, and the ability to face something problem[5].

The theory of *transferable skills* put forward by[6], where these *transferable skills* can be developed through improving the quality of learning. *Transferable skills* are competence required core for applying Skills base and Skills solve the problem for make environment wrong one element main policy education[7]. Somebody said have *transferable skills* if capable communicate, solve the problem, work same with others, management yourself, learn and competent in technology in place work. If skills that can be transferred could be applied to in curriculum, p this could impact positively[8],[9]. However, the reality prospective teachers still do not enough pay attention to transferable skills in learning. 75% of teachers have not once followed eye soft skills/transferable skills lectures, meaning many educators don't have formal knowledge of soft skills[10]. In line with the statement of[11], the results of his research show that as many as 75% of educators have never attended training related to soft skills/transferable skills, meaning that many educators do not have formal knowledge of soft skills. From these findings, it is possible that teachers also lack knowledge or pay attention to transferable skills in carrying out their profession

Based on observation, there is maybe a teacher too not have enough knowledge or currently looking for transferable skills in his job. One 's transferable skills with future teachers, of course, are influenced by several factors, wrong

only one is experience teaching. Because of experience in quality teaching, more teachers quality and have a comprehensive vision for acquiring transferable skills. From the findings, probably the teacher too not have enough knowledge or pay attention to transferable skills in operating his profession. Teachers' transferable skills are influenced by several factors, among others methods of communication, delivery Theory, and ability to Master ICT learning. With have ability to Master ICT learning, educators will the more competent and have broad insight so that they possibly achievability transferable skills. Quality teaching could affect soft skills, such as Skills communication, work team, and studying[6]. Where the aspect is a component important thing to do owned by prospective teachers for Becomes teacher professionals. *Transferable skills* are very important for teacher candidates taking advantage of ICT. Utilization of ICT in learning could Become a receptacle for prospective teachers to develop transferable skills. Based on the problem the so a need to research "Perceptions of transferrable skills of chemistry teacher candidates in the utilization of learning ICT".

2. METHODS

Study this using approach qualitative. Method study qualitative study this use method study was descriptive. The study was conducted in odd semesters year teaching 2022/2023 with a population of University Chemistry Education Study Program students Malikussaleh, taking a sample done through purposive sampling technique with a total of 57 students.

Technique data collection used in the study is a questionnaire and interview. The questionnaire was only given to the student class of 2018 that has taken eye studying *microteaching*. As for the sheet Interview on the study, this is for knowing existing constraints on the moment student practice teaching. Deep data analysis study uses technique analysis descriptive qualitative. Measurement score data results questionnaire counted with use scale measurement scale likert. With categories Very Agree (VA), Agree (A), Undecided (U), No Agree (NA), and Very Not Agree (VNA).

Table 1. Likert Scale Assessment Weight

Score from the result data questionnaire counted with statistics percentage with formula as follows:

$$P = \frac{F}{N} \times 100\% \quad (1)$$

Description :
P = Value percentage answer respondent
F = Frequency answer respondent
N = Amount respondent

Determination category qualitative mean percentage use indicator in table 3.2. Table 3.2. Category evaluation questionnaire:

Table 2. Questionnaire assessment category

Table 3. Distribution of transferable skills aspect statements

As for aspects of transferable skills studied in study this is as following:

3. RESULT AND DISCUSSION

3.1. Results

To measure the Perception of prospective teachers against transferable skills owned in utilizing ICT learning, measured with giving a questionnaire to chemistry teacher candidates, activities this aim to see so far where transferable skills in teaching you have by prospective teachers, p this because if prospective teachers do not have transferable skills in teaching eat will impact to performance as a teacher candidate. Perception data could be seen in the picture under this.

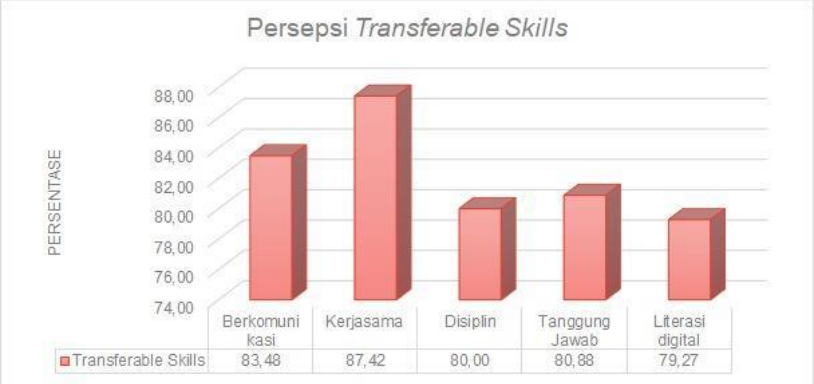

Figure 1 Perception Transferable Skills Teacher Candidate

Based on the pictures on could is known how Perception prospective teachers against transferable skills that owned in utilize ICT learning. Anyway measured indicators namely; 1. Indicator communication, on indicator this obtained a score percentage as much as 83.48%, p this because para-prospective teachers already have the ability good communicate. 2. Indicators cooperation, indicator cooperation, obtained a score percentage as much as 87.42 %, p this because para-prospective teachers already have the ability nice cooperate. _ 3 indicators discipline, on indicator this obtained score percentage as much as 80%, p this show that level discipline, prospective teachers, already good. 4. Indicators not quite enough answer, indicator this obtained a score percentage as much as 80.88 %. 5. Indicators Digital literacy, at indicator obtained a score percentage as much as 79.27 %. On every indicator obtain different values, based on results perception this could be concluded that all indicator transferable skills already owned by the prospective teacher alone.

3.1. Discussion

Students' perceptions of their transferable skills show that the perceptions of prospective teachers are more prominent in the aspect of collaboration with students, where prospective teachers claim to be able to help solve problems faced by students when students have difficulty working on assignments given in groups, prospective teachers can also look for resources accurate and actual information following the group assignments given so that students can obtain the latest information following the learning material they are studying.

The results of the study also show that prospective teachers also have a good perception of the way they communicate in the teaching and learning process, including the perception that they can provide opportunities for each student to express ideas in each communication, they do not discriminate between students in communicating during the learning process, they can guide students both inside and outside the learning process, and they always re-ensure whether the messages they convey can be understood by students or not.

Among all aspects of communication that show positive perceptions, some show negative perceptions, including prospective teachers, who cannot choose the language that is easily understood in communicating with students, because they feel that in conveying information or in communicating there will be misunderstandings in conveying information from the teacher. prospective teachers or receiving information from the student.

Prospective teachers perceive that it is not easy to master ICT learning, whereas in the digital era as it is today, ICT applications for learning are widely available, so they feel left behind with today's technological advances. [12] states that digital literacy learning does not only teach technical competence but is more like knowledge to use digital media, communication tools, or networks in finding, evaluating, using, creating information, and utilizing it in a healthy, wise, smart, careful way. appropriate and law-abiding.

Transferable Skills for prospective chemistry teachers in teach still must studied and customized with method teach that will used by prospective teachers, p this related with statement genie (2014:15) Education school until now based on the teaching process model and centered learning _ on partial concept _ big based on book text . However , Transferable Skills is difficult taught through methodology teaching traditional sort of this . Specifically how Transferable Skills can be developed still not yet clear.

4. CONCLUSION

Based on the results of the research and discussion that the researchers have described, the study "Student Perceptions of the transferable skills of prospective chemistry teachers in the use of ICT" can be concluded that student perceptions of their transferable skills show that the perceptions of prospective teachers are more prominent in aspects of collaboration and communication with students. As for aspects of mastering digital literacy, prospective teachers still feel that they are not optimal in utilizing digital technology, which is now widespread and widespread in the world of education.

5. SUGGESTION

From the results of the research that has been carried out, it is necessary to increase the mastery of digital literacy for prospective Chemistry teachers so that they can face the world of teaching with digital literacy, especially being able to utilize ICT learning following the material to be taught.

AUTHORS' CONTRIBUTIONS

Ratna Unaida completed all the work in the field, Isna Rezkia Lukman was in charge of writing the manuscript of the research results, and Fakhrah helped to put the data of research results in the field into the table. Overall, the team of authors helped each other in completing the research until this paper can be published.

ACKNOWLEDGMENTS

This editorial reflects the contributions of many past and present members of the chemistry education group at malikusslaeh university, and the malikussaleh university institute for research and community service (lppm) for the support of 2022 pnbp funding services.

REFERENCES

[1] Wijaya, E.Y. 2016. Transformasi Pendidikan Abad 21 sebagai Tuntutan Pengembangan Sumber Daya Manusia di Era Global. *Prosiding Seminar Nasional Pendidikan Matematika* (hal. 263-278). Malang: Universitas Kanjuruhan Malang

[2] Redhana, I. W. (2019). Mengembangkan keterampilan abad ke-21 dalam pembelajaran kimia. *Jurnal Inovasi Pendidikan Kimia*, *13*(1).

[3] Rizal, R. 2019. Digital Literacy of Pre-service Science Teacher. Journal of Physic.

[4] Rahman, Abdul, dkk. 2021. Analisis UU Sistem Pendidikan Nasional Nomor 20 Tahun 2003 dan Implikasinya Terhadap Pelaksanaan Pendidikan Di Indonesia. *JOEAI (Journal of Education and Instruction)*. Vol. 4, No 1. (98-107).

[5] Isbiyantoro, S. (2021). Kajian Transferable skills Guru Produktif Ditinjau dari Pengalaman Mengajar. *JUPITER (JURNAL PENDIDIKAN TEKNIK ELEKTRO)*, *6*(2), 5-11.

[6] Yatno. 2013. Teaching Skills Dan Responsibility Problem. *Varia pendidikan, vol. 25. No. 2, Desember 2013. Pp 83-97.*

[7] Kurnia, D., Dittrich, J., & Murniati, D. E. (2014). Transferable skills in technical and vocational education and training (TVET) in Indonesia. *TVET@ Asia*, *3*, 1-16.

[8] Luke, L. Y. Y., Ho, R., & Chan, C. K. Y. 2014. Engineering Undergraduates' Perception of Transferable Skills in Hong Kong. *In The 8th International Technology, Education and Development Conference (INTED2014)* (796–802). Valencia, Spain: IATED.

[9] Olsen, K. M., Sverdrup, T. E., & Kalleberg, A. L. 2019. Turnover and Transferable Skills in a Professional Service Firm. *Journal of Professions and Organization*, 0, 1–15.

[10] Hassan, A., Maharoff, M., & Abiddin, N. Z. (2014). The Readiness of Lecturers in Embedding Soft Skills in the Bachelor's Degree Program in Malaysian Institutes of Teacher Education. *Journal of Education and Training Studies*, *2*(3), 138-143.

[11] Siswandari. 2009. Peningkatan Kualitas Pembelajaran Statistika dalam rangka Mengembangkan *Transferable Skills* Mahasiswa. *Jurnal Pemikiran dan Penelitian Pendidikan Tinggi Akademika Volume 1 No. 1 Januari 2009*.

[12] Hanik, E.U.(2020). Self directed learning berbasis literasi digital pada masa pandemi covid-19 di madrasah ibtidaiyah. ELEMENTARY: Islamic Teacher Journal, 8 (1), 183-208.