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# REVIEW JURNAL

## A. Identitas Artikel

1. **Judul** : *Developing Self-Assessment Instruments to Measure the Pedagogical Competence of Prospective Teacher Students*
2. **Penulis** : Esti Setiawati, Abdunasir Ysin, Sharifah Zannierah Syed Marzuki, Zhang Chen, Victor Novianto
3. **Tahun** : 2024
4. **Jurnal** : International Journal of Social Learning

## B. Ringkasan Isi Artikel

Penelitian ini bertujuan untuk mengembangkan instrumen self-assessment dalam mengukur kompetensi pedagogik mahasiswa calon guru pada program pengenalan lapangan persekolahan. Latar belakang penelitian ini didasarkan pada pentingnya kompetensi pedagogik sebagai salah satu kompetensi utama yang harus dimiliki oleh calon guru, serta perlunya alat ukur yang valid dan reliabel untuk menilai kompetensi tersebut secara mandiri.

Penelitian ini menggunakan metode Research and Development (R&D) dengan model Plomp yang terdiri dari lima tahapan, yaitu investigasi awal, desain produk, realisasi/konstruksi, pengujian, evaluasi dan revisi, serta implementasi. Sampel penelitian ditentukan secara purposive dengan jumlah 58 mahasiswa.

Pada tahap pengujian, instrumen divalidasi oleh para ahli menggunakan Content Validity Index (CVI), serta diuji reliabilitasnya. Hasil penelitian menunjukkan bahwa nilai CVI sebesar 0,91 yang termasuk dalam kategori “hampir sempurna”, serta nilai reliabilitas lebih dari 0,70 yang menunjukkan bahwa instrumen memenuhi kriteria yang direkomendasikan. Selain itu, hasil self-assessment

menunjukkan bahwa 87,08% mahasiswa telah menguasai kompetensi pedagogik yang terdiri dari beberapa aspek utama.

## C. Hasil Review

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### 1. Kelebihan Artikel

Artikel ini memiliki kelebihan yang cukup kuat dari sisi metodologi. Pertama, penggunaan metode Research and Development (R&D) dengan model Plomp memberikan kerangka pengembangan instrumen yang sistematis dan terstruktur, sehingga produk yang dihasilkan memiliki dasar ilmiah yang jelas.

Kedua, artikel ini menunjukkan kualitas instrumen yang baik melalui uji validitas dan reliabilitas. Nilai Content Validity Index (0,91) yang berada pada kategori hampir sempurna menunjukkan bahwa instrumen memiliki tingkat kesesuaian isi yang sangat tinggi. Selain itu, nilai reliabilitas di atas 0,70 menunjukkan bahwa instrumen konsisten dalam mengukur kompetensi pedagogik.

Ketiga, artikel ini memiliki kontribusi praktis yang tinggi karena menghasilkan instrumen self-assessment yang dapat digunakan oleh mahasiswa calon guru untuk mengevaluasi kemampuan mereka secara mandiri. Hal ini sejalan dengan pendekatan pembelajaran modern yang menekankan refleksi diri dan metakognisi.

Keempat, artikel ini memberikan data empiris yang jelas, seperti persentase penguasaan kompetensi pedagogik sebesar 87,08%, sehingga memperkuat hasil penelitian secara kuantitatif.

### 2. Kelemahan Artikel

Meskipun memiliki kelebihan, artikel ini juga memiliki beberapa kelemahan. Pertama, penggunaan self-assessment sebagai satu-satunya metode penilaian berpotensi menimbulkan bias subjektivitas, karena responden menilai dirinya sendiri. Hal ini dapat memengaruhi objektivitas hasil pengukuran.

Kedua, penelitian ini terbatas pada konteks mahasiswa calon guru, sehingga hasilnya belum tentu dapat digeneralisasikan ke konteks lain, seperti guru profesional atau siswa sekolah.

Ketiga, artikel ini belum membahas secara mendalam implementasi instrumen dalam praktik pembelajaran nyata, sehingga dampaknya terhadap peningkatan kompetensi pedagogik belum terlihat secara langsung.

Keempat, analisis data yang digunakan masih bersifat deskriptif, sehingga belum mampu menjelaskan hubungan sebab-akibat atau efektivitas instrumen secara lebih mendalam.

**3. Relevansi dengan Kondisi Sekarang**

Artikel ini memiliki relevansi yang tinggi dengan kondisi pendidikan saat ini, terutama dalam konteks peningkatan kualitas calon guru. Kompetensi pedagogik menjadi salah satu faktor utama dalam menentukan keberhasilan pembelajaran, termasuk dalam pembelajaran IPS.

Penggunaan self-assessment juga sejalan dengan tuntutan pendidikan abad ke-21 yang menekankan pentingnya kemampuan refleksi diri, kemandirian belajar, dan pengembangan metakognisi. Dalam konteks Kurikulum Merdeka, pendekatan ini relevan karena mendorong peserta didik untuk lebih aktif dalam mengevaluasi proses belajar mereka sendiri.

Selain itu, instrumen self-assessment yang dikembangkan dalam penelitian ini dapat diadaptasi dalam pembelajaran IPS untuk membantu siswa menilai pemahaman dan keterampilan mereka secara mandiri. Namun demikian, untuk meningkatkan objektivitas, self-assessment sebaiknya dikombinasikan dengan bentuk asesmen lain seperti peer assessment dan teacher assessment.

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# Developing Self-Assessment Instruments to Measure The Pedagogical Competence of Prospective Teacher Students

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## ABSTRACT

*This research aims to develop a self-assessment of the pedagogical competence of prospective teacher students in the school field introduction program. The research method used is research and development with the Plomp model, which consists of five stages: initial investigation, product design, realization/construction, testing, evaluation and revision, and implementation. The sample was determined purposively, totaling 58 students. At the testing stage, experts judge the instruments based on the Content Validity Index. The instrument measured instrument's reliability was measured, and data collected from student teachers was analyzed using descriptive statistical methods. The research results show 1) The Content Validity Index content of the self-assessment instrument is 0.91, which is in the almost perfect category; 2) The reliability inmost more than 0.70, which 2 means it meets the recommended criteria; 3) The Self-assessment showed that 87.08% of study; 3 mastered pedagogic compe which consisted of five aspects.*

***Keywords*:**

Pedagogic Competence; School Field Introduction; Self-Assessment Instrument.

## ABSTRAK

*Penelitian ini bertujuan untuk mengembangkan penilaian diri kompetensi pedagogik mahasiswa calon guru dalam program pengenalan lapangan*



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*sekolah. Metode penelitian yang digunakan adalah penelitian dan pengembangan dengan model Plomp yang terdiri dari lima tahap, yaitu tahap investigasi awal, tahap desain produk, tahap realisasi/konstruksi, tahap tes, evaluasi dan revisi, dan tahap implementasi. Sampel ditentukan secara purposive yang berjumlah 58 siswa. Pada tahap pengujian, para ahli menilai instrumen berdasarkan Indeks Validitas Isi. Reliabilitas instrumen diukur dengan menggunakan inter-rater Kappa, dan data yang dikumpulkan dari guru-guru siswa dianalisis dengan metode statistik deskriptif. Hasil penelitian menunjukkan 1) Indeks Validitas Isi instrumen penilaian diri sebesar 0,91 yang termasuk dalam kategori hampir sempurna, 2) Indeks reliabilitas lebih dari 0,70 yang berarti memenuhi kriteria yang direkomendasikan, 3) Penilaian diri menunjukkan bahwa 87,08% mahasiswa menguasai kompetensi pedagogik yang terdiri dari lima aspek.*

***Kata kunci*:**

Kompetensi Pedagogik; Pengenalan Lapangan Sekolah; Instrumen Penilaian Diri.

## 1. Introduction

One of the main programs and activities at the Teaching and Education Faculty is the school field introduction program, formerly called the field experience program. This program aims to train prospective teacher students to master various competencies in the learning process in class. One of the important competencies that prospective teachers have is mastic competence, which consists of the ability to understand students, the ability to design learning, the ability to carry out learning, the ability to evaluate learning, and the ability to develop students' potential. Pedagogic competence is fundamental and a strategic key to achievement in school (Susanto, Agustina, Azmi, & Rachbini, 2021); (Sopandi & Handayani, 2019); (Syahrial et al., 2019).

Pedagogical competence training activities for prospective teachers are one of the important factors of programs and activities in the faculty's curriculum of teacher training and education. Training prospective teachers requires careful planning, adequate training, and approved private and effective training strategies so that prospective teachers can carry out learning well and be responsive to the learning needs of students (Syahmaidi, Hidayat, Hartanto, & Fitri Rahmadani, 2021); (Sudargini & Purwanto, 2020). Through this training, it is hoped that prospective student teachers will learn teaching practices and manage class addition skills, improve handling abilities, and prepare learning tools. The development of pedagogical competence has great potential to increase student engagement in learning, both in primary and secondary education and in further education (Lozano, Merrill, Sammalisto, Ceulemans, & Lozano, 2017). Pedagogical competence is a competency related to the ability to manage learning, understanding of students, use of IT, use of learning models, curriculum development, learning evaluation, and developing the potential of students in the learning process at school (Pahrudin, Martono, & Murtini, 2016); (Hartini, Putra Bhakti, Hartanto, & Alfarizqi Nizamuddin Ghiffari, 2018). This pedagogical competence is the foundation of teacher success in managing classroom learning practices. For this reason, teacher training programs must be optimally

developed to improve the pedagogical competence of prospective teachers (Yildiz, 2018). This is because pedagogical competence is a competency that can determine the success of the learning process and student learning outcomes (Emiliasari, 2018); (Susanto, Rozali, & Agustina, 2019). To train prospective teacher students to master pedagogical competencies, they are previously equipped with micro-teaching courses, and after graduating, they are continued with a school field introduction program.

Based on the observations, interviews, and documentation that have been carried out, there is no clear assessment rubric, so the assessment is only general. It does not specifically assess the pedagogical competence of prospective teacher students taking field introduction courses in schools. Therefore, it is necessary to develop a self-assessment instrument for the pedagogical competence of teachers or prospective teachers on an ongoing basis (König et al., 2021). The development of this instrument is based on the faculty's need to map how much competency student teachers have achieved and the needs of supervisors who are relevant to increasing pedagogical competence. The implementation of the school field introduction program has been going on for decades in the teaching and education faculties. Still, no instrument for student self-assessment on pedagogical competency attainment has been found. So far, general assessment from field supervisors and school tutors is common. This finding is a concern in the increasingly developing world of evaluation because one form of assessment that can improve student performance is self-assessment of what the student has achieved.

Self-assessment instruments can measure and evaluate student pedagogical competence independently and honestly to provide feedback from the assessment activities and improve the quality of graduate student teacher candidates. This is by the results of research (Grabe & Stoller, 2019), which states that self-assessment can make students realistic and more accurate in assessing themselves about expected learning goals. This self-assessment is also useful for monitoring the process and results of independent learning achievement (Abun, Magallanes, Marlene, Fredoline, & Madamba, 2021). The competence of student teacher candidates in understanding students, designing lessons, implementing learning, evaluating learning, and developing students' potential is very important to be given as provision when student teacher candidates are involved in school as teachers. For this reason, a good self-assessment is needed, which can be used to assess the pedagogical competence of prospective teacher students as a benchmark for continuous assessment in the second schooling field introduction program. Because so far, the assessment results still depend a lot on lecturers and students who have never been involved in the assessment process. Students are not eligible to assess their performance because they cannot decide on the assessment (Budiastuti, Sugiyem, & Puad, 2023); (Beumann & Wegner, 2018). For this reason, it is very important to involve students as assessors in assessing their current performance.

In this regard, self-assessment of pedagogic competencies can be used by prospective teacher students themselves because this instrument will make it easy for prospective teacher students to identify strengths and weaknesses in mastering the pedagogic competencies they must achieve. This self-assessment is a process that requires students to identify, assess, and evaluate the quality of understanding and skills during the learning process and may be improved in the future (Hearn & McMillan, 2008); (Farisi, 2012). Continuous self-assessment can help student-teacher candidates

reflect on the achievement of pedagogical competence as a framework that describes and describes the level of teaching performance of student-teacher candidates in mastering these competencies. This self-assessment also collects self-information about the results of the teaching practice of prospective teacher students through measurements with clear indicators. Through this self-assessment approach, comprehensive and actual general pedagogical competencies and special skills can be found (Suciu & Mata, 2011); (Mâţă, Cmeciu, & Ghiaţău, 2013) because the principle of this assessment must be able to encourage teachers or prospective teachers to be able to carry out better learning so that students will progress in their learning (Kartowagiran, Wibawa, Alfarisa, & Purnama, 2019).

The phenomenon of teacher learning is complex, entwined with many factors, including beliefs and experiences (Samusevica & Striguna, 2017); (Eka Tuah et al., 2021). As a teacher education and training institution that produces teaching staff, Universitas PGRI Yogyakarta has an important role in identifying the competencies of prospective teacher students through training activities as a form of reported performance (Muñoz Carril, Sanmamed & Hernández Sellés, 2013). The novelty of this research is the existence of self-assessment related to pedagogical competence in the introduction to the school field program that prospective teacher students must take. Because assessment is the most important component in the learning process and the quality of assessment is one of the main characteristics of good learning (Supriyadi, Zamtinah, Soenarto, & Hatmojo, 2019). For this reason, the faculty must create good conditions for students to develop professional abilities and pedagogical competencies so that students can develop creative and innovative ideas (Matlab Mukhamadovna, Aziza Sharipovna, & Supkhonovna, 2020).

A valid and reliable self-assessment instrument is needed to discover all the components of the pedagogic competency of prospective teacher students (Maksymchuk et al., 2020). This makes it possible for student teachers to assess their pedagogical abilities independently and continuously. Several previous studies have proven that through self-assessment instruments, student teachers can describe the competencies they have achieved and deficiencies that need to be corrected (Budiastuti et al., 2023). This proves that a self-assessment instrument for prospective teacher students regarding pedagogical competence is very necessary and is in line with the aim of this research, namely to develop a valid and reliable self-assessment instrument for prospective teacher students' pedagogic competence.

## 2. Methods

The research method used in this study is research and development that adopts the Plomp model, with five stages, namely the initial investigation phase, the design phase, the realization/construction phase, and the test, evaluation, and revision phase, as well as implementation. According to (Bright, R. L., & Gideonse, 1968) (Budiastuti et al., 2023), this research and development can facilitate research that develops instructional objectives, strategies, teaching materials, and learning processes.

The population of this research is prospective teacher students taking introductory courses in the school field II program. The sample selected in this study was 58 prospective teacher students taken by purposive sampling, representing nine study programs.

This self-assessment instrument measures the extent to which pedagogic competence is mastered in the second school field introduction program, developed by adopting the Plomp model. The development of this instrument follows the flow suggested by Plomp. The first step is problem analysis and needs analysis of the second schooling field introduction program. This step found that the assessment of pedagogic competence was limited to the assessment of teaching exercises carried out by tutors and supervising lecturers. At the same time, self-assessment from students had never existed. The problem and needs analysis results found a solution to design a self-assessment instrument for student teacher candidates participating in the second school field introduction program.

The second step is to make a prototype self-assessment instrument based on the instrument grid that has been prepared. This prototype is then submitted to a team of experts for assessment and validation. Based on the analysis of the expert validation, the results of the self-assessment instrument need to be revised from the linguistic aspect. In the third step, the construction process is carried out again on the prototype of the self-assessment instrument. After being revised, the self-assessment instrument became a new prototype, and re-validation was requested from the expert. Then, the fourth step, the prototype of the self-assessment instrument, was tested in a limited way on prospective teacher students participating in the second school field introduction program. The results of the trial were then analyzed, and the results did not need revision, so the prototype of the self-assessment instrument was then used in the fifth step, namely the implementation of self-assessment by 58 selected students by purposive sampling representing study programs at the Teaching and Education Faculty of the PGRI Yogyakarta University. To determine how far prospective teacher students have mastered pedagogic competencies, appropriate descriptive measurement criteria are used to describe these competencies. The Kappa inter-rater technique measured the validity of the instrument. The procedure for developing a self-assessment instrument is shown in Figure 1 below.

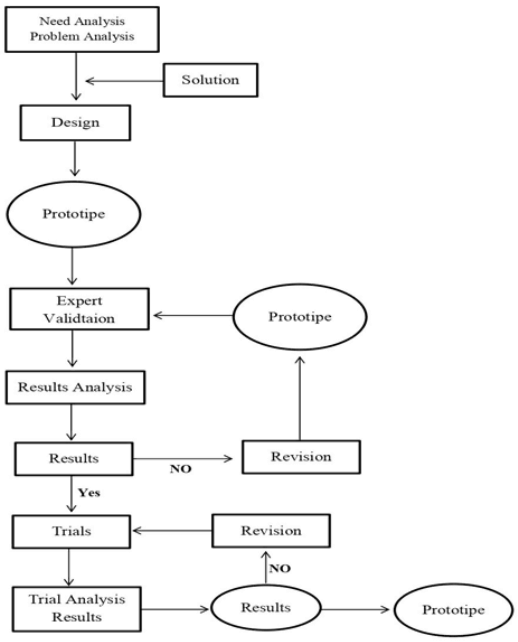


**Figure 1.** Procedure for Preparing The Self-Assessment Instrument

Table 1 describes the development of the pedagogic competence self-assessment instrument for prospective teacher students participating in the second schooling field introduction program. Pedagogic competency self-assessment data was collected through assessment sheets and rubrics with the categories Very Appropriate, Appropriate, Less Appropriate, Inappropriate, and Very Unsuitable.

**Table 1.** Pedagogic Competency Self-Assessment Instrument for Prospective Teachers

| No. | Assessment Aspect | Assessment Coverage | Type of Instrument | Number of Items |
|---|---|---|---|---|
| 1 | Understanding of student | a. Pay attention to initial abilities<br>b. understand learning difficulties<br>c. understand the character | Self-assessment sheet | 3 items |
| 2 | Learning design | a. determine learning objectives<br>b. design lessons properly<br>c. understand the proper method | Self-assessment sheet | 3 items |
| 3 | Implementation of learning | a. managing proper learning<br>b. implementing conducive learning<br>c. Carry out dynamic learning | Self-assessment sheet | 3 items |
| 4 | Learning evaluation | a. designing theoretical and practical assessments<br>b. carry out test and non-test assessments<br>c. planning remedies | Self-assessment sheet | 3 items |
| 5 | Developing the potential of students | a. task reinforcement and feedback<br>b. extracurricular assistance<br>c. psychological reinforcement | Self-assessment sheet | 3 items |

Data was collected from expert judgment categorized based on the Content Validity Index (CVI), which is presented in Table 2. Meanwhile, the reliability of the instrument was measured using the Kappa inter-rater. Student teacher candidates who participate in the school field introduction program use instruments that have met the validity requirements to carry out self-assessments on aspects of pedagogic competence. Student self-assessment data regarding pedagogical competence is collected through valid and reliable self-assessment instruments.

**Table 2.** Evaluation of the Kappa Statistical Value

| Value of K | Interpretation |
|---|---|
| <0 | Poor |
| 0 – 0.20 | Slight |
| 0.21 – 0.40 | Fair |
| 0.41 – 0.60 | Moderate |

| | |
|---|---|
| 0.61 – 0.80 | Substansial |
| 0.81 – 1.00 | Almost perfect |

Source: (Landis & Koch, 1977).

While the data analysis technique used in this research is descriptive analysis to present the percentage of mastery of the pedagogic competencies of prospective teacher students who take part in the second school field introduction program, measurement of the pedagogic competence of prospective teacher students is presented in Table 3 below.

**Table 3.** Categories of Pedagogic Competency Measurement

| Score Intervals | Category |
|---|---|
| $4{,}2 < \bar{x}$ | Very good |
| $3{,}4 < \bar{x} \leq 4{,}2$ | Good |
| $2{,}6 < \bar{x} \leq 3{,}4$ | Enough |
| $1{,}8 < \bar{x} \leq 2{,}6$ | Not enough |
| $\bar{x} \leq 1{,}8$ | Very less |

Source:(Widoyoko, 2014)

## 3. Results and Discussion

The instrument developed in this research measures the extent of pedagogical competence prospective teachers have mastered while participating in the school field introduction program. This self-assessment instrument allows prospective teachers to assess themselves honestly and openly regarding the pedagogical competencies they have mastered.

This pedagogical competency includes understanding students, designing learning, implementing learning, evaluating learning, and developing students' potential. This competency is measured independently using research instruments developed and used continuously.

The results of the pedagogic competency self-assessment trial show that for the aspect of student understanding with an average score of 4.35 (87%), the aspect of learning design averages 4.45 (89%), the aspect of the implementation of learning averages 4.32 (86.4%), the learning evaluation aspect averaged 4.25 (85%), and the potential development aspect of students averaged 4.40 (88%). The results of the recapitulation of the pedagogic competency assessment can be shown in Table 4 below.

**Table 4.** Recapitulation of Pedagogic Competency Assessment

| No. | Aspect | Average | Percentage (%) |
|---|---|---|---|
| 1 | Student Understanding | 4,35 | 87 |
| 2 | Learning Design | 4,45 | 89 |
| 3 | Implementation of Learning | 4,30 | 86 |
| 4 | Learning Evaluation | 4,25 | 85 |
| 5 | Potential Development of Learners | 4,40 | 88 |
| | **Average** | **4,35** | **87** |

Based on the recapitulation of the pedagogic competency assessment in Table 4, it can be concluded that the average value of pedagogic competence is 4.35 or 87%, which can be categorized as very good pedagogic competence, shown in Figure 2 below.

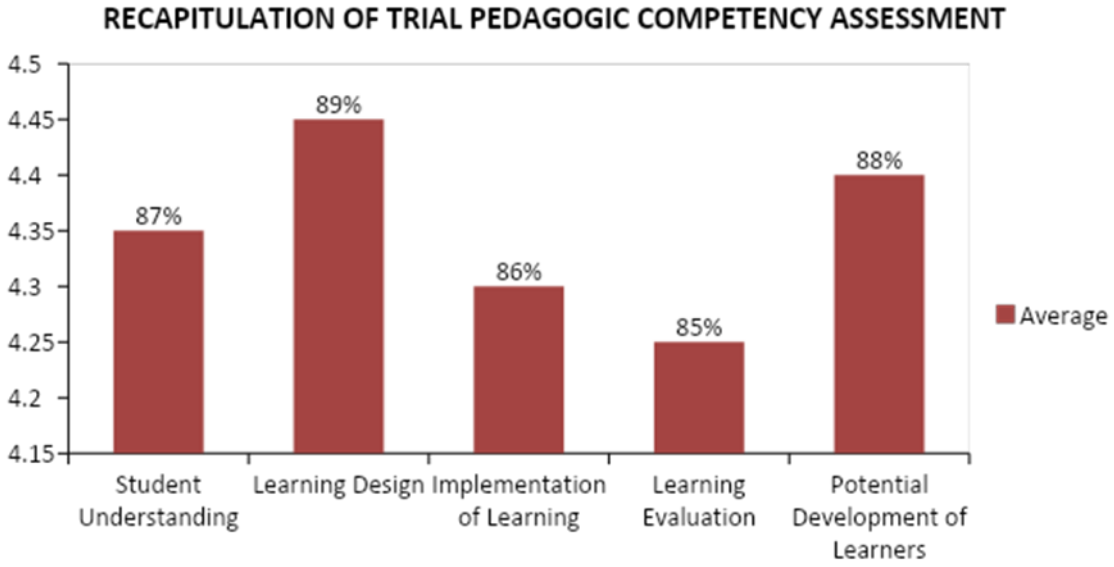


**Figure 2.** Pedagogic Competency Assessment Histogram

The results of students' self-assessments on aspects of student understanding are presented in Figure 3. Of the 58 students participating in the second schooling field introduction program, 89.66% understood the potential of students, 86.21% understood students' learning difficulties, and the participant's character. Students by 85.52%. This can be explained by the ability to understand student students is very good. Students' in-depth understanding skills are very good when referring to the existing categories, as shown in Figure 3 below.

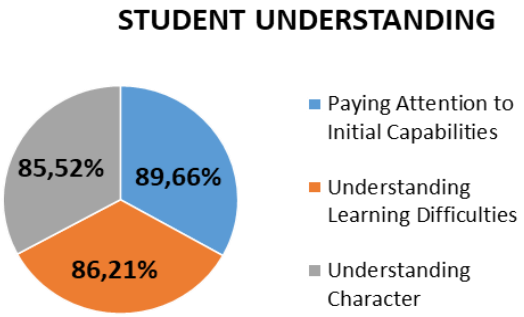


**Figure 3.** Diagram of Assessment of Student Understanding Aspect

While self-assessment on learning design, four indicators of determining learning objectives obtained a percentage of 90.69%; designing learning reached 88.97%, and understanding of appropriate learning methods achieved 87.24%. An overview of the results of the second aspect of the self-assessment is shown in Figure 4 below.

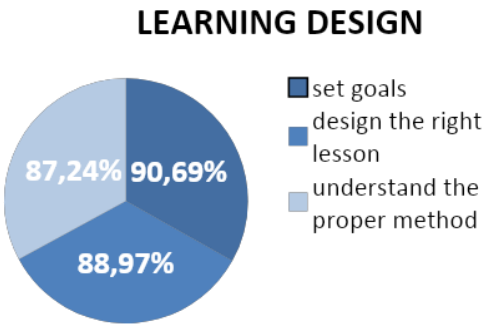


**Figure 4.** Learning Design Aspect Assessment Diagram

For self-assessment on the implementation aspect of learning, for the first aspect, namely optimal learning management, student achievement was 87.24%. In comparison, the implementation of the learning process reached 85.52%, and dynamic learning implementation was 85.52%. An overview of the results of the third aspect of self-assessment can be seen in Figure 5 below.

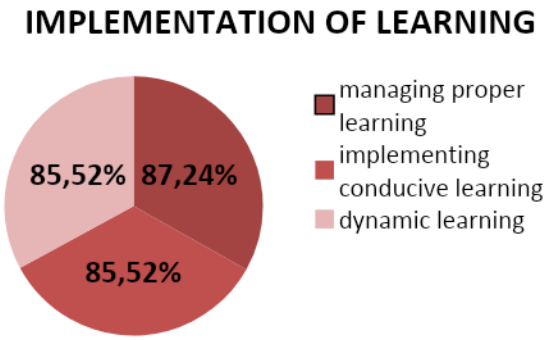


**Figure 5.** Diagram of the Assessment of the Implementation of Learning Implementation Aspects

For the fourth aspect of self-assessment, namely the design of learning evaluation, in the first aspect, namely the use of theoretical and practical assessment, the student score achievement was 85.52%, the use of test and non-test assessment was 86.21% while designing remedial programs, the student score achievement was 83.1%. This aspect's self-assessment results can be seen in the following diagram 6.

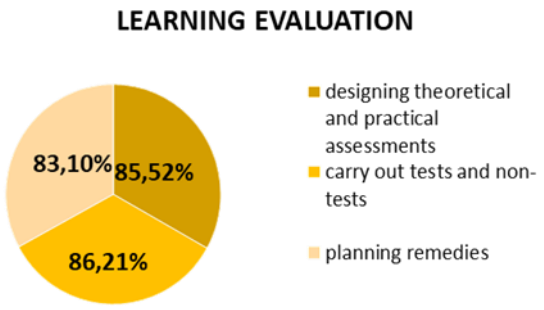


**Figure 6.** Learning Evaluation Aspect Assessment Diagram

The fifth aspect in students' self-assessment of the potential development of students, on the indicators of providing reinforcement and task feedback, student achievement was 90%, extracurricular assistance was 86.55%, and psychological stimulation reinforcement was 87.59%. The results of this self-assessment can be shown in Figure 7 below.

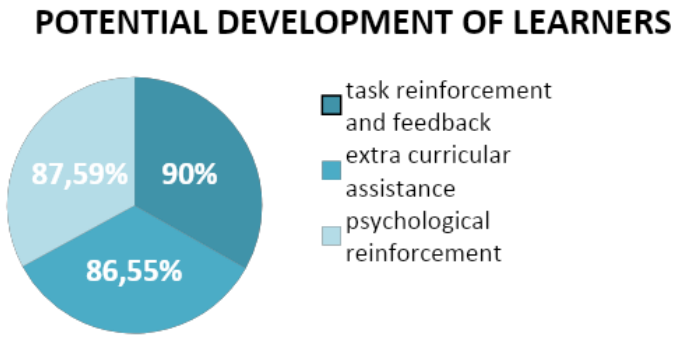


**Figure 7.** Diagram of Assessment of Potential Development Aspects of Learners

Previous research (Budiastuti et al., 2023) shows that self-assessment of students' work attitudes in the fashion design practicum course, with a research sample of 15 students, shows that the instrument meets the requirements for perfect validity and reliability with an index of 0.70 in the good category. The self-assessment results showed that fourteen out of fifteen students were declared to have good practicum performance. Suppose the results of this research are compared with research conducted by the author. In that case, there are many findings of increased innovation, where the research sample used is much larger, representing nine study programs, and the validity test involves more evaluation experts. So, it can be concluded that the pedagogical competency self-assessment instrument produced can be used by students in a wider spectrum of school field introduction programs.

The preliminary investigation stage is the stage of needs analysis or problem analysis. At this stage, data and information in the field are collected and identified according to related problems. The need for the teaching and education faculties is an instrument for self-assessment of pedagogical competence in an introductory field school program that has never existed. So far, the assessment of

teaching practices carried out by tutors and supervisors. For this reason, it is necessary to design competency development and special assessments so that candidate educators realize new competencies (Andryukhina et al., 2016); (Mahat et al., 2022).

Furthermore, at the design stage, the design of a pedagogic competence self-assessment instrument was prepared with five aspects, namely the competence to understand students, the competence to design learning, the competence to carry out learning, the competence to evaluate learning, and the competence to develop students' potential. From each aspect, it is developed into fifteen indicators. The aspects assessed in the pedagogic competence assessment in students' understanding consist of three assessment indicators, namely understanding students' initial abilities, understanding students' initial difficulties, and understanding students' character; aspects assessed in lesson planning include three assessment indicators, namely determining learning objectives, designing appropriate learning, and determining appropriate learning methods; while the aspects assessed in the implementation of learning include three assessment indicators, namely managing to learn, carrying out the learning process, and dynamic learning. The aspects assessed in the pedagogic competency assessment in evaluating learning include three assessment indicators: determining the appropriate type of evaluation, fully comprehensively using test and non-test evaluations, and designing and implementing remedial programs. The aspects assessed in the pedagogic assessment in developing students' potential include three indicators: providing enforcement and task feedback, accompanying students in extra-curricular activities, and providing psychological motivation to students (Ismuratova, Slambekova, Kazhimova, Alimbekova, & Karimova, 2018).

In construction, a set of self-assessment instruments was developed to measure the pedagogic competence of prospective teacher students participating in the second school field introduction program (Yusnita et al., 2018). This stage includes designing the form of a self-assessment instrument, incorporating the substance of each aspect of the assessment, and identifying indicators for each of these aspects. One very important thing is the need for an assessment sheet for each indicator in the instrument development rubric to check whether this self-assessment instrument needs revision. This self-assessment is effective for measuring self-ability and improving self-quality (Andrade & Du, 2007); self-assessment allows students to be able to assess themselves and their shortcomings (Lias, Lindholm, Pohjanoksa-Mäntylä, Westerholm, & Airaksinen, 2021); This self-assessment can also evoke a positive attitude of students (Zammi, Susilaningsih, & Supardi, 2018) (Zannierah, Marzuki, Mokdad, Novianto, & Buyong, 2024).

At the development stage, the construction of the self-assessment instrument was validated by three experts in educfieldsal evaluation, language, and teacher education. The results of the validation test of the self-assessment instrument with the Content Validity Index (CVI) to find out how much the content validity coefficient of the expert judgment shows that the CVI value is 0.91 (almost perfect). These results have shown that the developed self-assessment instrument already reflects indicators of pedagogic competence, especially in the second schooling field introduction program (Lapoule & Lynch, 2018).

The next step is testing or evaluating selected students from the second school field introduction program participants. Based on the recapitulation of the pedagogic competency assessment in Table 4 above, it average value of the pedagogic competence of prospective teacher students participating

in the second school field introduction program is 4.35. This means that 87% of the 58ents in the selected sample can be categorized as a student's pedagogic competence in the very good category.

Through several stages of development, this assessment instrument can be used by students to conduct a self-assessment of pedagogic competence in an honest and independent second schooling field introduction program. The results of the self-assessment of pedagogic competence in Table 4 and Figure 2 show that for aspects of student understanding with an average score of 4.35 (87%), aspects of learning design with an average of 4.45 (89%), aspects of learning implementation with an average of 4, 32 (86.4%), the evaluation aspect of learning averaged 4.25 (85%), and the aspect of developing potential learners with an average of 4.40 (88%). From these five aspects, it can be concluded that 87% of the 58 students participating in the second schooling field introduction program were very good at mastering their pedagogical competencies.

In the assessment of the first aspect, namely the aspect of student understanding presented in Figure 3, it shows that of the 58 students participating in the second schooling field introduction program, 89.66% were able to understand the potential of students, 86.21% understood students' learning difficulties, and understand the character of students by 85.52%. This can be explained by the fact that the ability to understand student students is very good, with an average of 87.12%, based on the existing inventories, even though there are still around 12.87% of students who have not been able to understand the potential of students in learning.

Self-assessment on the second aspect, namely the aspect of learning design in Figure 4, for indicators of determining learning objectives, the percentage of student achievement was 90.69%, designing learning was 88.97%, and understanding appropriate learning methods with an achievement percentage of 87.24%. If the average self-assessment of this second aspect is taken, the student achievement is 87.58%, which means that there are still 12.42% of students who have not been able to make a comprehensive learning plan.

For self-assessment on the third aspect, namely the implementation of learning in Figure 5, for the first aspect, namely optimal learning management, the percentage of student achievement was 87.24%. In comparison, the implementation of the learning process reached 85.52%, and the implementation of dynamic learning was 85.52%. If the average is calculated, the competence in the implementation of learning, students get a percentage score of 86.09; it explained that there are still 13.91% of students who have not been able to carry out the learning process in a conducive manner (Dimaculangan, Hadji Abas, & Quinto, 2022).

Meanwhile, for the fourth aspect of self-assessment in Figure 6, namely the design of learning evaluation, in the first aspect, namely the use of theoretical and practical assessment, the student achievement score was 85.52%, the use of test and non-test assessment was 86.21, while designing remedial programs, the achievement score students by 83.1%. When the results of this self-assessment are averaged, the student achievement is 84.94%, which can be interpreted that there are still around 15.06% of students who do not understand the design of learning evaluation.

The fifth aspect of student self-assessment is the rasping students' potential in Figure 7; in the indicators of providing reinforcement and assignment feedback, student achievement is 90%, extracurricular assistance is 86.55%, and psychological stimulation reinforcement is 87.59%. The results of this self-assessment, when averaged, the student competence in the fifth aspect is 88.04%,

which can explain that there are still around 11.96% of students who have not been able to develop student potential optimally.

Based on the self-assessment of prospective teacher students participating in the second schooling field introduction program, it was found that 87% of students had mastered pedagogic competencies. In comparison, 13% of students still had to learn more so that during the implementation of the schooling field introduction program they could master all aspects and assessment indicators, especially in competency assessment pedagogic.

The results of this study indicate that self-assessment instruments for pedagogic competence in the second schooling field introduction program need to be applied to train students to self-evaluate regarding students understanding abilities, learning design, learning implementation, learning evaluation, and aspects of developing students' potential. Equally important are supervisors, tutors, and managers of the school field introduction program periodically reviewing self-assessment instruments that align with developments in science and technology so that faculties and universities can prepare graduates of qualified prospective teaching staff with high competitiveness.

## 4. Conclusion

This research aims to produce a self-assessment instrument to measure pedagogical competence in the second school field introduction program. The self-assessment instrument includes five assessment aspects: student understanding, learning design, learning implementation, learning evaluation, and developing student potential. The results of the validation test of the self-assessment instrument with the Content Validity Index (CVI) to determine how big the content validity coefficient of the expert judgment shows a CVI value of 0.91 (almost perfect). These results indicate that the self-assessment instrument developed reflects indicators of pedagogical competence, especially in the second school field introduction program.

The results of the self-assessment trial of pedagogical competence showed that for the aspect of student understanding, the average score was 4.35 (87%), the learning design aspect averaged 4.45 (89%), the learning implementation aspect averaged 4.32 (86.4%), the learning evaluation aspect averaged 4.25 (85%), and the student potential development aspect averaged 4.40 (88%). Based on the recapitulation of pedagogical competency assessments, it shows that the average pedagogical competency score for prospective teacher students participating in the school field introduction program II is 4.35. This means 87% of the 58 selected sample students can be categorized as having students' pedagogical competence in the very good category.

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