

# Development and reliability of the Indonesian version of the Clinical Learning Evaluation Questionnaire (CLEQ) in health sciences education

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**Abstract.** Clinical learning practices bridge the gap between theory and practice. Through clinical learning practices, midwifery students are encouraged to prepare themselves before graduating and working in clinical practice. Evaluation of the clinical learning environment is necessary to create a conducive learning environment. The CLEQ scale has been validated and used in more than 30 countries. The purpose of this study was to translate the CLEQ instrument into Indonesian. CLEQ was translated into Indonesian using international translation rules *backward* (by two language experts and midwifery experts) and *forward* (by two language experts and midwifery experts). Validity and reliability tests were conducted. The validity test of the translated CLEQ questionnaire was conducted on 33 respondents using the *Corrected Item to Total Correlation* method, which correlates each item score and total score and corrects overestimated correlation coefficients (estimates higher than the actual value) to prevent overestimation of the item-total coefficient. The reliability test yielded a value of 0.769.

## 1 Introduction

Practical learning in clinical settings or the field is an essential component of professional education, especially in the health sector. The practice setting serves as a vehicle for contextual learning that allows students to develop clinical skills, professionalism, and

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decision-making directly in real-life situations [1]. In this context, practice field supervisors—both clinicians and academic supervisors—play a central role in bridging theory with practice, as well as providing supervision, feedback, and evaluation of student performance [2].

Evaluation of supervisors in the field is very important because the quality of guidance provided will directly affect the achievement of student learning targets. Research shows that active involvement of supervisors in providing guidance, constructive feedback, and creating a supportive practice environment can significantly improve students' clinical competence [3]. However, there are variations in the quality of supervision that are often not systematically identified due to the lack of structured and continuous evaluation mechanisms.

In addition, an evaluation of the overall practice site is also crucial to ensure that the curriculum objectives are in line with the facilities, cases, and service processes at the practice site. Factors such as the workload of clinic staff, the availability of relevant cases, and a supportive learning climate must be analysed thoroughly [4]. A mismatch between learning objectives and the reality of the practice setting can lead to competency gaps and frustration among students.

Furthermore, the process of mentoring and evaluating students in practice also needs to be reviewed holistically. Evaluations that focus not only on the final results (output) but also on the learning process, active student involvement, achievement of specific competencies, and sustainability of professional development are important indicators in clinical education [5]. Therefore, a comprehensive evaluation system for supervisors and practice sites is essential to ensure the quality of education, institutional accountability, and patient safety in the future.

Given this urgency, it is necessary to develop a standardised, valid, and sustainable evaluation system that involves input from students, educational institutions, and field practice sites. This evaluation is expected to be used as a basis for continuous quality improvement in the management of clinical practice and the development of supervisor competencies in the field [6].

## **2 Methods**

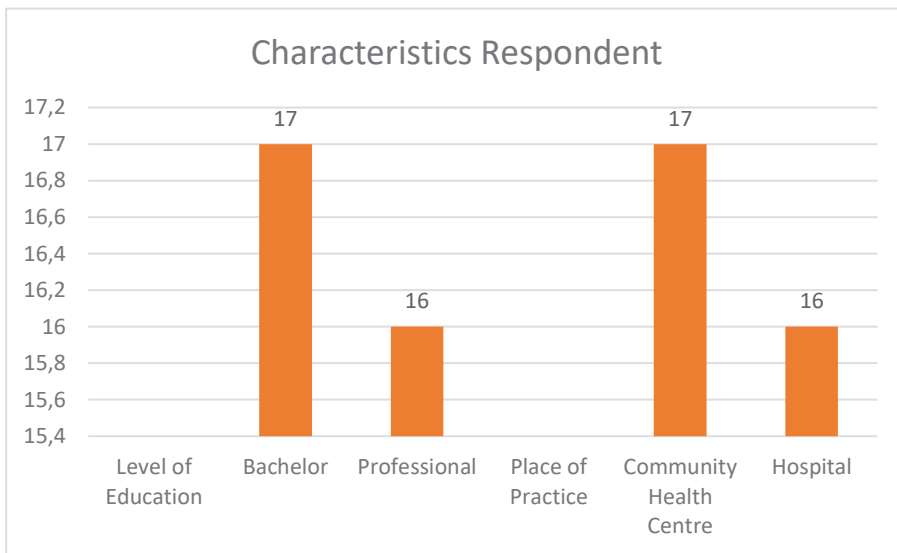
Research design: The English version of the CLEQ questionnaire will be translated into Indonesian using the backward-forward method, following international guidelines [7]. The Indonesian version of the CLEQ was translated by two sworn translators working independently and separately. Then, the two Indonesian translations were assessed by two bilingual midwives to produce the final Indonesian version. Next, the final Indonesian version was translated by two separate sworn translators to be retranslated from Indonesian into English. After that, the new English version was compared with the original English version by the researcher to assess the linguistic consistency of the English version. The Content Validity Index (CVI) was used to assess the content validity of the Indonesian version of the CLEQ instrument [8]. Four experts were asked to assess the Indonesian version of the CLEQ, each of whom had expertise in the fields of education (two people) and services (two people). The results of the translation were tested for validity and reliability on 33

respondents. This research has obtained permission from the Ethics Committee of Aisyiyah University Yogyakarta with the number 4095/KEP-UNISA/XII/2024.

### 3 Results and discussion

#### 3.1 Results

##### 3.1.1 Respondent characteristics



**Diagram 1.** Characteristics of respondents in the validity and reliability tests

##### 3.1.2 Validity results

The validity of the CLEQ questionnaire was tested with 33 respondents using the Corrected Item to Total Correlation method, which correlates each item score with the total score and corrects the correlation coefficient value that is overestimated (higher than the actual value) so that the item-total coefficient is not overestimated, the following results were obtained:

**Table 1.** Output of item-total correlation validity test

Item No of Question	r value Calculated	r value Table	Description
1	0.671	0.344	Valid
2	0.693	0.344	Valid
3	0.612	0.344	Valid
4	0.641	0.344	Valid
5	0.648	0.344	Valid
6	0.561	0.344	Valid
7	0.671	0.344	Valid
8	0.683	0.344	Valid
9	0.671	0.344	Valid

10	0.554	0.344	Valid
11	0.469	0.344	Valid
12	0.560	0.344	Valid
13	0.527	0.344	Valid
14	0.688	0.344	Valid
15	0.741	0.344	Valid
16	0.789	0.344	Valid
17	0.769	0.344	Valid
18	0.700	0.344	Valid

**Table 2.** Reliability Test Output

<b>Cronbach's Alpha</b>	<b>Number of Items</b>
.756	19

### 3.2 Discussion

The respondents in this study were 33 midwifery students, consisting of 17 undergraduate students and 16 professional students. A midwife is a woman who has completed a midwifery education programme, either domestically or abroad, that is legally recognised by the Central Government and has met the requirements to practise midwifery [8]. To meet the expected competency standards, during the undergraduate and professional stages of learning, a practice field that supports the achievement of these standards is essential.

Practical training is a key component in midwifery professional education because students can develop clinical competencies through direct experience with patients, develop professionalism and ethics, evaluate student abilities, and adapt to the health system in real life [9-11].

Evaluation of the practice field is crucial to ensure that clinical learning objectives are optimally achieved. Case attainment (number and type of cases) significantly influences students' ability to achieve clinical competencies in accordance with Midwifery Competency Standards. If the practice field does not provide sufficient numbers and variety of cases, learning will be suboptimal [12].

Effective guidance by preceptors (clinical supervisors) has a direct impact on the quality of learning. Preceptors must be able to provide constructive feedback, directly supervise student practice, and guide clinical decision-making in stages. Without adequate guidance, students risk making clinical errors and failing to achieve the necessary clinical reasoning [11].

Structured and participatory supervision significantly improves students' confidence and clinical competence [13]. A qualified midwife supervisor is a midwife who has qualifications with current practice experience, has successfully completed a study programme and/or demonstrates competence in teaching, including curriculum development, use of teaching strategies, and measurement and evaluation of student learning. In many countries, there is still a critical shortage of midwives with the capacity to be competent mentors/teachers, which often results in teachers from other disciplines educating midwives. Ideal clinical supervisors or preceptors must meet minimum educational qualifications (e.g., midwifery profession or master's degree), be certified as clinical supervisors, and have been trained in

clinical pedagogy and have at least 2 years of relevant clinical experience [14]. Evaluating these qualifications is important because preceptors are professional role models for students.

Evaluation of practice sites and clinical supervisors is very important because it: Ensures the quality of clinical learning in accordance with graduate competency standards. Identifies obstacles in achieving cases and conducting practice (e.g., limited cases, passive guidance, student overload). Provides a basis for continuous improvement of the curriculum and supervision system. Without evaluation, educational institutions cannot assess the effectiveness of practice sites or the performance of preceptors, resulting in uncontrolled graduate quality [10].

Responsibilities of Educational Institutions Establish a periodic evaluation system for practice sites and preceptors (at least per semester). Map cases and distribute students evenly to avoid case shortages or overloads. Provide training for preceptors so that they have adequate pedagogical and evaluative competencies. Establish active communication with practice sites through MoUs and regular coordination [11-13].

Responsibilities of the Practice Site Provide a conducive and safe practice environment for students. Assign preceptors according to their qualifications, not just randomly appointing staff. Provide access for students to actively participate in care and decision-making. Be willing to be part of the evaluation system and follow up on the results of the evaluation [14].

The evaluation of midwifery student practice sites covers aspects of case achievement, guidance processes, and preceptor competence. This evaluation is important to ensure the quality of clinical learning and compliance with graduate competency standards. Educational institutions and practice sites must work together to develop a quality, measurable, and sustainable clinical learning system [15].

The results of the validity and reliability tests for the CLEQ 2.0 instrument, which has been translated into Indonesian using the backward and forward methods by two experts, and tested on 33 respondents, showed that 18 questions were declared valid and the reliability result was 0.756, which means that this questionnaire is declared reliable.

The CLEQ 2.0 questionnaire can serve as an evaluation tool for midwifery clinical learning to enhance the quality of learning and achieve the desired competencies

## **4 Conclusion**

This study was able to translate and validate the Indonesian version of the Clinical Learning Evaluation Questionnaire (CLEQ) following the internationally accepted procedure of backwards-forward translation. All 18 items achieved satisfactory levels of validity, and the reliability coefficient (Cronbach's alpha = 0.756) suggests that the instrument has a good level of internal consistency. Therefore, the Indonesian CLEQ can be perceived as a viable and appropriate instrument to assess the value of clinical learning experiences of midwifery students, and thus, support the efforts aimed at improving the clinical education and enhancing the level of competencies attained.

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