

Criteria And Indicators For Diagnosing The Level Of Professional Culture Of Future Teachers

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Abstract. The article substantiates a diagnostic framework for assessing the professional culture of future teachers. Five interrelated criteria axiological-motivational, cognitive-professional, activity-technological, communicative-ethical, and reflexive-developmental are specified through observable indicators and evidence sources. The framework is designed for criterion-referenced assessment in teacher education and supports developmental feedback rather than one-time ranking.

Keywords: Professional culture, future teacher, diagnostics, criterion, indicator, assessment, pedagogical ethics, reflection.

The quality of teacher preparation increasingly depends not only on the amount of disciplinary and methodological knowledge acquired by students, but also on how that knowledge is transformed into professional values, responsible decisions, ethical interaction, pedagogical action, and continuous self-development. Contemporary international documents emphasize teaching as a profession that requires strong knowledge and skills, professional autonomy, collaboration, responsibility and sustained learning [1; 2]. From this perspective, professional culture should be treated as an integrative characteristic of a future teacher rather than as a narrow synonym for competence or compliance with isolated rules. A methodological problem follows from this interpretation: an integrative construct can be educationally useful only when it is diagnosed through transparent criteria and observable indicators. If assessment is limited to a knowledge test, the value-based, communicative and reflexive dimensions remain invisible. If it relies only on a general impression, reliability and comparability are weakened. Therefore, the diagnostic apparatus must connect the conceptual structure of professional culture with evidence that can be observed in learning tasks, pedagogical cases, projects, simulated or real teaching situations, communication episodes and reflective products.

The theoretical synthesis was based on three complementary lines of scholarship. First, Shulman's concept of teacher knowledge demonstrates that professional teaching requires the transformation of subject knowledge into forms that are pedagogically meaningful and applicable to concrete learners and contexts [3]. Second, Schön's reflective-practice perspective highlights professional action under conditions of uncertainty and the importance of reflection on action for the improvement of practice [4]. Third, contemporary frameworks of teacher professionalism and teacher education stress professional learning, collaboration, autonomy, ethical responsibility and the connection between university preparation and practice [1; 2; 5]. For assessment design, the article also draws on criterion-referenced logic. Danielson's framework is relevant not as a template to be copied, but as an example of translating complex professional practice into domains, components and performance descriptors that can guide observation and feedback [6]. The Council of Europe competence framework is methodologically useful because it differentiates values, attitudes, skills, and knowledge/critical understanding, and links them to descriptors of observable performance [7]. Taken together, these sources justify a multidimensional diagnostic model in which no single instrument can adequately represent professional culture.

The methodological procedure consisted of: (1) conceptual analysis of the professional culture construct; (2) structural decomposition into functionally distinct components; (3) operationalization of each component as a diagnostic criterion; (4) formulation of indicators that describe observable manifestations; (5) selection of evidence sources suitable for higher education; and (6) construction of developmental level descriptors. Three requirements guided operationalization: indicators had to be semantically linked to the criterion, observable in student activity, and assessable through more than one source of evidence. This approach reduces the risk of equating a latent personal quality with a single questionnaire score.

The resulting framework contains five criteria. The first criterion is axiological-motivational. It diagnoses whether professional values such as respect for the learner, responsibility, fairness, cooperation, commitment to development and the social meaning of teaching have become regulators of the student's professional choices. Its indicators include the ability to justify a pedagogical decision through professional values; stability of interest in teaching and professional growth; acceptance of responsibility for educational consequences; value-sensitive interpretation of pedagogical dilemmas; and willingness to improve one's practice. The central diagnostic question is not merely "Does the student know the value?", but "Does the value influence the student's reasoning and choice?" The second criterion is cognitive-professional. It reflects the system, depth and applicability of pedagogical knowledge. Indicators include understanding of basic pedagogical concepts and regularities; ability to connect theory with a specific educational situation; reasoned interpretation of learner characteristics and contextual factors; knowledge of professional and ethical norms; and the capacity to compare alternative pedagogical solutions. This criterion is best assessed through analytical tasks, case interpretation, oral explanation, concept mapping and evidence-based written responses rather than through reproduction tests alone.

The third criterion is activity-technological. It concerns the ability to transform knowledge and values into purposeful pedagogical action. Indicators include problem identification, goal setting, selection and justification of teaching methods, planning of interaction, adaptation of decisions to situational constraints, implementation of pedagogical tasks, and evaluation of consequences. The key characteristic is not technical performance in isolation, but the consistency of the chain "situation analysis – pedagogical decision – implementation – evidence of result."

The fourth criterion is communicative-ethical. It reflects professional interaction with learners, peers and other educational actors. Indicators include respectful and clear communication; active listening; dialogic argumentation; observance of pedagogical tact and confidentiality; constructive response to disagreement; avoidance of humiliating or discriminatory communication; and responsibility in collaborative work. Because ethical communication is contextual, it should be diagnosed through observation, role-play, case discussion, peer interaction and analysis of authentic or simulated communication episodes.

The fifth criterion is reflexive-developmental. It determines whether the future teacher can analyse personal professional action and use evidence to improve it. Indicators include identification of strengths and limitations; explanation of causes of success or difficulty; comparison of intended and actual outcomes; acceptance and use of feedback; formulation of concrete improvement steps; revision of a previous decision when new evidence appears; and planning of further professional learning. Reflection is therefore interpreted as a mechanism of self-regulation, not as a descriptive diary entry.

Table 1. Diagnostic criteria, indicators and recommended evidence sources

Criterion	Core indicators	Recommended evidence	Diagnostic focus
Axiological-motivational	Value-based justification; professional responsibility; stable learning motive; commitment to humane and fair action.	Value dilemmas, reflective essay, interview, case-based choice.	Why and on what value basis the student acts.
Cognitive-professional	Systemic pedagogical knowledge; contextual interpretation; theory-practice connection; knowledge of norms.	Case analysis, concept map, written reasoning, oral defence.	How professionally the student understands the situation.
Activity-technological	Goal setting; method selection; planning; adaptive implementation; evidence-based evaluation of action.	Microteaching, project, practical task, lesson fragment, portfolio.	How effectively knowledge is converted into action.
Communicative-ethical	Respectful dialogue; active listening; tact; collaboration; constructive conflict management; confidentiality.	Observation rubric, role-play, peer feedback, communication case.	How ethically and productively the student interacts.

Reflexive-developmental	Self-analysis; use of feedback; causal explanation; correction; professional growth planning.	Reflective journal, self-assessment, portfolio commentary, post-task debrief.	How the student learns from professional experience.
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To interpret results, three developmental levels are proposed: low, medium and high. At the low level, performance is mainly reproductive or situational: the student recognizes norms and concepts but inconsistently applies them, depends heavily on external instruction, and provides weak justification for decisions. At the medium level, the student applies knowledge and values in familiar professional situations, can justify most decisions, communicates constructively and uses feedback, although transfer to complex or unfamiliar contexts remains unstable. At the high level, professional values, knowledge, action, ethical communication and reflection function in an integrated manner; the student independently analyses complex situations, justifies alternatives, adapts action, evaluates consequences and converts feedback into a concrete development strategy.

The proposed levels should not be interpreted as labels of the student's personality. They describe the quality of demonstrated evidence in a defined set of educational tasks. For this reason, diagnostic conclusions should be based on repeated observations and a portfolio of evidence rather than one measurement. A practical scoring rubric may use a three-point scale for each indicator, but numerical aggregation should remain secondary to criterion-based interpretation. A high total score should not compensate for a serious deficit in professional ethics or responsibility; profile analysis is therefore preferable to a single composite score.

The diagnostic model has several methodological advantages. First, it preserves the integrative nature of professional culture while making assessment operational. The five criteria correspond to different functions: values regulate direction, knowledge provides intellectual orientation, activity translates intentions into practice, communication organizes professional relations, and reflection enables correction and development. Their interaction reflects the reality of pedagogical work more accurately than a checklist of unrelated qualities.

Second, the model supports triangulation. A questionnaire may reveal self-perception, but not necessarily actual professional behaviour. Conversely, a single practical task may be influenced by situational factors. Combining case analysis, observation, portfolio products, peer or expert feedback, interviews and reflective texts makes it possible to compare declared positions with demonstrated action. Such triangulation is consistent with the broader international tendency to treat teacher professionalism as multidimensional and evidence-based [1; 2].

Third, the diagnostic system is developmental. Its purpose is not to rank future teachers, but to identify the next pedagogically meaningful step. For example, a student may demonstrate strong cognitive-professional knowledge but weak reflexive-developmental performance. In that case, the appropriate intervention is not more theoretical content, but structured debriefing, feedback analysis, and tasks requiring revision of previous decisions. Another student may communicate confidently yet show insufficient ethical justification; this profile requires value dilemmas, analysis of professional boundaries and criterion-based discussion of consequences.

At the same time, the framework requires empirical validation before it can be used as a standardized instrument. The wording of indicators should be tested for clarity; expert agreement should be established for content validity; rubrics should be piloted for inter-rater consistency; and the relationship between criteria, tasks and developmental levels should be examined using appropriate statistical procedures. Particular attention should be paid to avoiding construct contamination: general academic achievement, extroversion, or verbal fluency should not be mistaken for professional culture. Diagnostic instruments must therefore assess the intended construct rather than convenient proxies. The proposed approach is especially suitable for pedagogy courses because such courses can integrate theoretical analysis, professional dilemmas, collaborative discussion, project activity, microteaching and reflection within a single learning sequence. This creates a direct link between teaching content and diagnostic evidence. Assessment becomes part of professional development: the same task can simultaneously reveal a current level, generate feedback and create conditions for improvement.

A practical diagnostic cycle can be organized in four consecutive steps. At the first step, the assessor selects a representative set of professional situations that require the simultaneous use of knowledge, values and decision-making. These situations should vary in complexity and should include routine, ambiguous and ethically sensitive cases. At the second step, evidence is collected from at least two different modes of performance, for example a written case analysis and a microteaching episode, or a portfolio product and a structured reflective interview. At the third step, each criterion is interpreted through an analytic rubric containing explicit indicators and level descriptors. At the fourth step, the assessor prepares a criterion profile and formulates developmental feedback that identifies the student's current strengths, priority deficits and a concrete next task for improvement.

The diagnostic results are most useful when represented as a profile rather than only as a total score. A profile makes it possible to see, for example, that a student has a high cognitive-professional level, a medium activity-technological level and a low reflexive-developmental level. Such asymmetry has direct pedagogical meaning: it indicates that the student knows what to do but has difficulty learning from the consequences of action. The individual development plan can then include structured post-task debriefing, comparison of alternative decisions, analysis of feedback and repeated performance in a similar but not identical situation. In this way, diagnosis becomes an element of the educational technology itself: evidence is collected, interpreted, converted into feedback, and then used to design the next cycle of professional learning. The study substantiates a diagnostic framework for the professional culture of future teachers based on five criteria: axiological-motivational, cognitive-professional, activity-technological, communicative-ethical and reflexive-developmental. Each criterion is operationalized through observable indicators and linked to evidence sources appropriate for higher pedagogical education. The framework treats diagnostic levels as characteristics of demonstrated professional performance rather than fixed labels of a person.

References

1. UNESCO, International Task Force on Teachers for Education 2030. Global Report on Teachers: Addressing Teacher Shortages and Transforming the Profession. – Paris: UNESCO, 2024. – 185 p. – ISBN 978-92-3-100655-5.
2. OECD. TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners. – Paris: OECD Publishing, 2019. – 220 p. – DOI: 10.1787/1d0bc92a-en.
3. Shulman L.S. Those Who Understand: Knowledge Growth in Teaching // Educational Researcher. – 1986. – Vol. 15, No. 2. – P. 4–14. – DOI: 10.3102/0013189X015002004.
4. Schön D.A. The Reflective Practitioner: How Professionals Think in Action. – New York: Basic Books, 1983. – 374 p.
5. Darling-Hammond L. Teacher education around the world: What can we learn from international practice? // European Journal of Teacher Education. – 2017. – Vol. 40, No. 3. – P. 291–309. – DOI: 10.1080/02619768.2017.1315399.
6. Danielson C. The Framework for Teaching: Evaluation Instrument. – Princeton, NJ: The Danielson Group, 2013. – 109 p.
7. Council of Europe. Reference Framework of Competences for Democratic Culture. Volume 1: Context, Concepts and Model. – Strasbourg: Council of Europe, 2018. – ISBN 978-92-871-8573-0.
8. Kolb D.A. Experiential Learning: Experience as the Source of Learning and Development. – Englewood Cliffs, NJ: Prentice-Hall, 1984. – 256 p.