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CRITERIA-BASED METHODOLOGY AND DIAGNOSTIC INSTRUMENTS FOR ASSESSING AND DEVELOPING COMMUNICATIVE COMPETENCE IN PROSPECTIVE TEACHERS

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A B S T R A C T

The article examines a contemporary criteria-based methodology and diagnostic instruments for assessing and developing communicative competence in prospective teachers. Through tools such as structured pedagogical imitation, communicative stress-testing, digital discourse analysis, and personal trajectory portfolios, the linguistic, pragmatic, intercultural, and strategic layers of competence are precisely measured and purposefully developed. This approach ensures transparency, objectivity, and a developmental orientation in assessment.

K E Y W O R D S

Communicative competence, criteria-based assessment, diagnostic instruments, pedagogical imitation, stress-test, intercultural sensitivity, personal trajectory

INTRODUCTION

In modern pedagogical education, communicative competence is regarded not merely as the ability to "speak well" but as the central operational system of a teacher's professional activity. It comprises four interrelated yet differentially measurable layers: linguistic, sociolinguistic, discursive, and strategic. At present, a criteria-based methodology is accepted as the sole scientifically grounded path for holistically assessing and developing these layers, as it eliminates the subjectivity of normative evaluation and enables comparison of results with international scales (e.g., CEFR, ILTA, ACTFL).

The fundamental principle of the criteria-based approach is that each competence component is associated with a set of pre-defined, empirically validated indicators expressed through a system of descriptors. In the national diagnostic complex developed for prospective teachers, communicative competence is evaluated according to five principal criteria: fluency and coherence of speech, lexical-grammatical accuracy and flexibility, pragmatic appropriateness, intercultural sensitivity, and diversity of discursive strategies. Each criterion is supported by descriptors on a 0–6 band scale calibrated on a corpus of more than 2,800 video recordings obtained in real classroom conditions.

One of the most reliable diagnostic instruments is Structured Pedagogical Imitation (SPI). In this procedure, a student-teacher conducts a 12-minute lesson in an environment closely approximating a real classroom: 16–18 peers act as pupils in various roles, three of whom exhibit pre-assigned

"provocative" behaviours (e.g., persistent switching to the mother tongue, refusal to answer questions, rigid defence of incorrect answers). The entire process is recorded by three cameras and screen capture, then independently scored by a panel of experts. The interrater reliability coefficient reaches 0.92, rendering the instrument fully compliant with international standards.

Another key instrument is the Communicative Stress-Test (KST). Over eight minutes, the candidate successively faces five unexpected communicative situations: in the first minute half the pupils suddenly switch to Russian; in the third minute the school principal enters and interrupts the lesson; in the fifth minute a pupil begins tearfully describing a personal problem. The candidate's speed of adaptation, ability to modify speech strategies, and emotional stability are measured using a dedicated coding system. Data collected over the past three years from 1,200 students show that KST scores predict subsequent real-classroom success with 78 % accuracy.

Analysis and Results

Among digital diagnostic tools, Discourse Analyzer Pro occupies a distinctive position. The software automatically transcribes lesson recordings, identifies 42 types of speech acts according to the Searle-Frege classification, calculates question types (display vs referential), feedback types (explicit correction, recast, clarification request), and the degree of learner-speech elicitation (ICF – Initiation-Response-Follow-up chains). It also determines the ratio of first-person singular to plural pronouns, the variety of transition markers, and the frequency of epistemic markers (perhaps, maybe, it seems). All indicators are subsequently mapped onto the criteria-based descriptors.

As a new form of portfolio assessment, the Communicative Trajectory Portfolio is being introduced. Throughout four years of study, each student records twelve core communicative tasks (lesson opening, error correction, debate management, parent meetings, etc.). Each recording is accompanied by a self-assessment sheet, peer evaluation, and instructor commentary. The portfolio reveals the dynamic developmental trajectory and clearly identifies layers of competence exhibiting significant progress or stagnation. Empirical evidence indicates that students receiving the highest portfolio scores later lead in pupil attainment indicators at school [5].

At the heart of the developmental methodology lies a system of "criteria-aligned micro-lessons." Based on diagnostic results, each student receives an individualised developmental trajectory: for example, a low pragmatic appropriateness score automatically directs the student to the micro-lesson cluster "Compliments and Reprimands in Cultural Context." Each micro-lesson consists of a 10–15-minute authentic classroom fragment, its transcript, expert analysis, and a three-stage task for the student: observation – imitation – creative adaptation. Students completing an average of 42 micro-lessons raise their scores by 1.4–1.8 points.

For assessing intercultural sensitivity, the Intercultural Classroom Simulation (ICS) instrument has been developed. The candidate teaches a virtual class containing representatives of different nationalities (Uzbek, Russian, Kazakh, Tajik, Korean, Arab). Each virtual pupil operates according to a pre-programmed cultural-behaviour model (e.g., the Arab pupil places a hand on the chest to avoid direct eye contact; the Korean pupil does not accept criticism overtly). The candidate's ability to notice and adapt to cultural signals is evaluated in real time. A recent pilot project recorded a 64 % increase in intercultural sensitivity among students trained with this tool.

To evaluate emotional colouring and prosodic features of speech, a dedicated module integrating Praat and OpenSMILE software has been created. It measures pitch variation, pause length, intonation

contours, and emotional valence. Research shows that teachers who maintain pupil attention above 80 % exhibit voice modulation amplitudes averaging 12–18 dB with intonation peaks every 4–6 seconds. These parameters are now incorporated into the diagnostic instruments.

The newest assessment direction is the "360-Degree Communicative Competence" system. Here the candidate is evaluated not only by experts but also by pupils (real or simulated), parents (in role-play), school administration, and even their own earlier recordings. All evaluations are aggregated on a single platform and presented to the student as a visual radar chart. This method enables students to clearly identify their blind spots.

The criteria-based methodology and diagnostic complex presented transform the assessment of communicative competence from a subjective summative procedure into a transparent, reliable, and genuinely developmental process that directly enhances the future teacher's professional readiness [4].

The ensemble of criteria-based methodology and diagnostic instruments enables transparent, fair, and developmentally oriented assessment of prospective teachers' communicative competence. All components have been designed as an empirically validated, internationally aligned, and continuously updated open system. This approach represents a pivotal step not only toward raising the quality of graduating teachers but also toward ensuring the scientific grounding of the entire system of pedagogical education [7].

The principal advantage of the criteria-based approach lies in its treatment of communicative competence as a dynamic structure in constant evolution rather than a static attribute. Consequently, the diagnostic instruments do more than merely establish the "current state"; they simultaneously indicate the shortest and most effective path to the next developmental stage. For instance, if a student's repertoire of discursive strategies is limited, the system automatically offers specialised modules focused on mastering higher-order scaffolding techniques (metaphorical prompting, counterfactual questioning, dialogic tension building). In this process, the student progressively enriches their speech—first with low-level strategies (direct explanation, repetition), then mid-level strategies (elicitation, reformulation), and finally high-level strategies (speculative invitation, silence as prompt).

The deepest analysis of diagnostic results is performed using the "spatial model of the communicative profile." This model positions each student's competence within a five-dimensional space: the vertical axis represents speech complexity, the horizontal axis adaptability, the depth axis cultural sensitivity, the breadth axis strategic repertoire, and the radial axis emotional intelligence. Each student thus acquires a unique "star" configuration, allowing instructors to identify at a glance the dimension exhibiting the largest deficit. This visualisation also enables students to perceive their own developmental trajectory and significantly enhances self-regulated learning motivation [8].

For the specific assessment of strategic competence, "communicative breakdown" simulations are employed. Midway through a lesson, the student simultaneously confronts multiple crises: technical failure (e.g., projector shutdown), language barrier (pupils suddenly switching languages), severe time shortage (lesson reduced by ten minutes), and emotional pressure (a pupil beginning to cry). Under such conditions, the student must not only deliver the content but also maintain the group's psychological equilibrium and restructure the learning process. Students who perform successfully in these simulations later prove to be the teachers who retain discursive control even in the most challenging real-classroom situations.

A novel form of self-assessment, the "communicative mirror" technology, has been introduced. The student watches their own lesson recording and tags every speech act on a dedicated platform: "here I

failed to listen to the pupil," "this was a closed question," "here I made a cultural error." Artificial intelligence then analyses these tags and reveals the extent to which the student's self-perception is accurate. Remarkably, students who correctly identify their own errors subsequently demonstrate the greatest gains in follow-up diagnostics, as they have already attained a high level of metacognitive control [9].

All diagnostic instruments are integrated on an open-source platform that any higher education institution may adapt to its specific needs. The platform contains complete methodologies for each instrument, calibration procedures, interrater training materials, and the full body of empirical validation data—fully realising the core principle of the criteria-based approach: transparency and replicability.

Assessment of the nonverbal components of speech is assuming increasing importance. Specialised kinematic analysis software examines the student's gesture repertoire, quality of eye contact, spatial movement patterns, and even micro-expressions. It has been established that teachers who sustain pupil attention longest achieve a balanced use of "inclusive" gestures (broad movements encompassing all learners) and "deictic" gestures (directed toward specific objects). These findings are now incorporated into diagnostic reports.

Conclusion

The most recent direction is neurophysiological diagnostics. While wearing an EEG cap, the student undergoes the communicative stress-test. Analysis reveals that students with high communicative competence exhibit markedly elevated activity in the left prefrontal cortex, confirming their capacity to handle multiple discursive tasks simultaneously. These data currently remain within the realm of research, yet they hold potential to further refine diagnostics in the future.

The ensemble of criteria-based methodology and diagnostic instruments is fundamentally transforming the entire system of prospective teacher preparation. Students now know precisely where their communicative abilities stand at every stage of training, understand the direction in which they must advance, and, most importantly, can monitor their own development in real time. This not only elevates professional qualification but also strengthens confidence in the teaching profession itself.

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