



DEVELOPING UNIVERSITY STUDENTS' COMMUNICATIVE CULTURE IN INTERNET ENVIRONMENTS THROUGH PROFESSIONAL- COMMUNICATIVE TASKS: A METHODOLOGICAL SYSTEM AND ASSESSMENT MODEL

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Abstract. *Communicative activity in an internet environment does not, by itself, indicate that a student has developed communicative culture. Pedagogical outcomes depend on integrating a professional situation, a communicative problem, an addressee, collaboration, feedback, and reflection into a coherent task cycle. This article aims to develop a system of professional-communicative tasks and an assessment model for fostering university students' communicative culture in internet environments. The study draws on methodological design, thematic synthesis of contemporary national and international literature, operationalization of communicative culture into observable indicators, and principles of scenario-based assessment of authentic communicative performance. Communicative culture is represented by five components: motivational-value, cognitive, communicative, activity-behavioral, and reflective. The article makes no quantitative claims regarding the empirical effectiveness of the intervention; rather, the proposed system is presented as a reproducible methodological framework for subsequent quasi-experimental testing.*

Keywords: *communicative culture, internet environment, professional-communicative task, digital communication, reflection, feedback, transfer, performance-based assessment.*

1. INTRODUCTION

Digital learning environments have transformed the forms of communicative activity in higher education. Students conduct electronic correspondence, justify their positions in forums and videoconferences, create shared digital products, discuss collaborative decisions, and provide feedback to other participants. Research on online collaborative learning

indicates that social, cognitive, and teaching presence are associated with learning outcomes, which requires digital interaction to be viewed not merely as technical connectivity but as a socio-communicative process [6].

However, equating online activity with communicative culture would be a methodological error. Communicative culture is manifested not in the frequency



of students' messages or their mere participation on a platform, but in a responsible attitude toward communication, awareness of the addressee and communicative purpose, evidence-based argumentation, constructive responses to opposing positions, collaborative behavior, and reflective analysis of one's own communicative activity. Shirmatov [10] examined students' communication culture in relation to social networks, while Abdigapbarova, Zhienbayeva, and Baikulova [1] proposed a model for monitoring network communication culture and digital etiquette in a university online community on the basis of communicative, cognitive, and value-motivational components.

The problem therefore arises at the levels of mechanism and measurement. Existing studies have addressed various aspects of digital communication, professional-communicative competence, communicative skills, and online collaboration [5, 2, 9]. Nevertheless, there remains a need to activate the value-related, cognitive, dialogic, behavioral, and reflective dimensions of communicative culture within a single system of tasks approximating authentic professional activity, to assess this process through actual communicative products and observable behavior, and to examine whether the developed strategy transfers to a new situation.

Research on technology-mediated task-based language teaching provides an important conceptual basis for

understanding this problem. Smith and González-Lloret [11] emphasize the need to align technological tools with specific tasks and learning contexts, to consider how technology changes task characteristics, and to monitor process data rather than focusing solely on final outcomes. Bhandari et al. [3] systematically reviewed 17 studies on technology-mediated task-based language teaching. They reported that many studies relied heavily on student questionnaires and self-reported experiences and highlighted the need for longer-term research on task design, implementation, and assessment. This finding strengthens the rationale for assessing communicative culture not only through self-assessment but also through evidence of actual communicative performance.

In this study, a professional-communicative task is defined as a pedagogical task that requires a student, in an authentic or professionally approximated situation, to identify a communicative problem, select an addressee and strategy, engage in digital interaction with other participants, justify a position, create a communicative product or collaborative decision, and revise communicative behavior on the basis of feedback and reflection. Contemporary research on scenario-based assessment suggests that professionally authentic conditions enable students to demonstrate digital communicative actions that may be required in workplace contexts [8].

The developmental effect of a task should not end with its completion.



Criteria-based feedback, reflection, and subsequent correction enable students to reconsider their communicative decisions. Jongsma et al. [4] compared online peer feedback with face-to-face peer feedback in higher education. Their meta-analysis, comprising 12 comparisons across 10 studies, identified a small positive effect in

favor of online peer feedback ($g = 0.33$), although the findings of individual studies were heterogeneous. Accordingly, feedback in the present study is not treated as an independently “effective method,” but as a functional component of the cycle shown below.

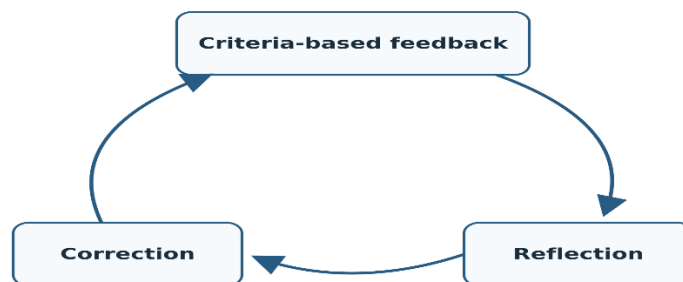


Figure 1. Task → feedback → reflection → correction cycle

Thus, the research gap is identified not at the level of the topic itself but at the level of integration: a methodological system remains insufficiently systematized in which professional-communicative tasks approximating authentic professional activity in internet environments function as measurable pedagogical units for developing multidimensional communicative culture; authentic communicative performance is assessed using criteria based on observable behavioral indicators; feedback and reflective correction are integrated into a single cycle; and the transfer of learned strategies to new professional situations is explicitly examined. The purpose of this article is therefore to develop such a methodological system and assessment model and to substantiate a reproducible protocol for subsequent experimental testing.

2.

RESEARCH

METHODOLOGY

This study was designed as methodological design research. Its purpose is not to demonstrate intervention effectiveness in the absence of empirical data, but to construct a system of professional-communicative tasks, a diagnostic construct, and a measurement protocol that can subsequently be tested in a quasi-experimental study. The methodological process comprised four stages: (1) thematic synthesis of national, CIS, and international research on communicative culture and digital communication; (2) decomposition of communicative culture into observable components and indicators; (3) development of a task system based on situations approximating authentic professional activity; and (4) specification of equivalent-difficulty scenario-based diagnostic tasks for T_0 and T_1 , a criteria-



based scoring rubric, procedures for examining the content validity of the assessment instruments, and procedures for monitoring intervention fidelity.

Communicative culture was operationalized through five components. The motivational-value component encompasses responsibility, respect, willingness to collaborate, and digital ethics; the cognitive component covers awareness of communicative purpose, addressee, professional norms, and situation-appropriate strategy; the communicative component includes clarity, argumentation, questioning and clarification, active listening, and

constructive response; the activity-behavioral component comprises collaborative decision-making, conflict management, criteria-based feedback, and coordination of activity; and the reflective component includes identifying communicative errors, analyzing feedback, correcting strategy, and transferring it to a new situation. These five components were operationalized through an analytical synthesis of communicative, cognitive, value-motivational, professional-communicative, and digital-collaboration dimensions described in previous studies [10, 1, 2, 9].

Table 1. Components, indicators, and evidence sources of communicative culture

Component	Key indicators	Evidence source
Motivational-value	responsibility; respect; willingness to collaborate; digital ethics	electronic correspondence, chat, group activity
Cognitive	communicative purpose; consideration of the addressee; professional norms; strategy selection	scenario analysis, communicative plan
Communicative	clarity; argumentation; questioning and clarification; active listening and constructive response	email, forum, negotiation, videoconference
Activity-behavioral	collaborative decision-making; conflict management; feedback; coordination of activity	decision protocol, chat, group-project records
Reflective	error identification; feedback analysis; correction; transfer	initial and revised products, reflective writing, T ₂ task

A common methodological core was maintained in the design of every professional-communicative task:

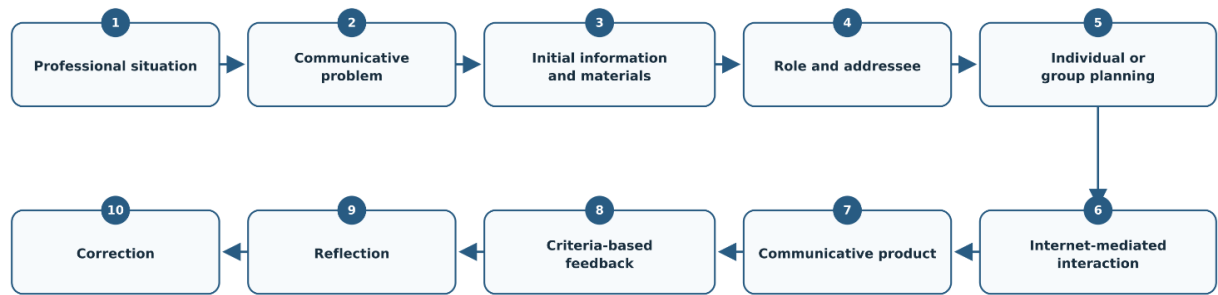


Figure 2. Methodological core of a professional-communicative task

This core distinguishes the tasks from a conventional set of exercises and makes them simultaneously developmental and diagnostic instruments.

For diagnostic purposes, four observable indicators were specified for each component, resulting in an author-developed 20-indicator criteria-based scoring rubric. This rubric is not presented as a fully validated scale; rather, it is an initial measurement construct that must undergo expert review and pilot testing. Each indicator is scored from 0 to 4 using explicit descriptors of observable behavior rather than broad judgments such as “low,” “medium,” or “high.” For example, for the argumentation indicator, 0 indicates the absence of evidence; 1, a purely personal opinion; 2, relevant but weak support; 3, a conclusion logically connected to clear evidence; and 4, justification based on multiple relevant pieces of evidence while taking a counterargument into account. Each component has a maximum score of 16, and the complete rubric yields a theoretical maximum of 80 points. Cut-off points for categories such as “low,” “medium,” and “high” are not predetermined in the absence of pilot data.

To reduce practice effects in repeated measurement, T_0 and T_1 were designed as

scenario-based diagnostic tasks of equivalent difficulty but different content. T_0 concerns a delay in an internal project deadline, whereas T_1 concerns a technical error in data received from a partner organization; the two forms are matched in terms of time pressure, professional addressee, conflicting interests, written product, group discussion, feedback, and reflection. T_2 is designed as a transfer task involving a strong complaint from an external client, a choice between public and private communication channels, and a new source of uncertainty. Its purpose is not to reproduce a trained response but to observe whether the student can adapt a strategy to a new addressee, communication channel, and risk of reputational harm.

A quasi-experimental design with an active control group is proposed for subsequent testing: $T_0 \rightarrow$ 12-week intervention $\rightarrow T_1 \rightarrow$ delayed or new-context T_2 . In the active control group, learning content, internet tools, and total instructional time are to be matched, while the professional situation $\rightarrow$ criteria-based peer feedback $\rightarrow$ reflection $\rightarrow$ correction



→ transfer cycle is not systematically implemented. This design reduces the risk of attributing an observed effect merely to greater internet use by the experimental group.

Before the assessment instruments are used in the main study, their content validity and practical usability are to be examined in a pilot study. Experts will rate the fit of each indicator to its intended component, its observability, the distinguishability of the 0–4 score levels, and the professional authenticity of each scenario-based task using a four-point scale. Item-level content validity will be assessed using I-CVI, overall average content validity using S-CVI/Ave [12], and, where appropriate, the essentiality of an indicator using the CVR coefficient [13]. Two independent raters will be trained using preselected benchmark samples to establish a shared interpretation of the criteria. Agreement on 0–4 scores will be evaluated using an ICC specification appropriate to the study design [14]; Cohen's kappa will be used for nominal or binary indicators, and weighted kappa for ordinal categories [15]. Intervention fidelity will be monitored with a checklist documenting the professional situation, communicative problem, role and addressee, digital interaction, product, feedback, reflection, and correction stages. Numerical validity

and reliability indices will be reported only after actual expert-review and pilot data have been obtained.

3. METHODOLOGICAL DESIGN OUTCOMES

The methodological design produced three interrelated scientific-methodological outputs: (1) a system of seven types of professional-communicative tasks; (2) a preliminary model for assessing authentic communicative performance based on five components and 20 indicators; and (3) a T_0 – T_1 – T_2 measurement and transfer protocol. These methodological outputs are not interpreted as evidence of empirical effectiveness; they are research instruments developed for subsequent experimental testing.

The system includes professional electronic correspondence, online professional negotiation, a problematic professional situation, conflict-oriented digital communication, expert online discussion, criteria-based peer assessment and feedback, and a digital group project. All tasks share the same pedagogical core but activate the components of communicative culture to different degrees. Abbreviations used in the table are: M — motivational-value; K — cognitive; C — communicative; A — activity-behavioral; R — reflective.

Table 2. System of professional-communicative tasks and assessment dimensions



Task	Primary communicative product	Primary components	Main assessment focus
Professional email	150–200-word professional email	K, C, F	addressee appropriateness, clarity, responsibility, solution
Online professional negotiation	agreed decision and brief protocol	C, F	argumentation, listening, reaching compromise
Problem-based professional situation	position statement and final recommendation	K, C	analysis, evidence, dialogue, correction
Conflict-oriented digital communication	de-escalating response and agreement	M, F	ethics, distinguishing fact from interpretation, conflict management
Expert online discussion	evidence map and expert conclusion	K, C	evidence, questioning, synthesis of different views
Criteria-based peer assessment and feedback	evidence-based recommendation and revised product	C, R	clarity, evidence base, actionable recommendation
Digital group project	project proposal, decision record, and presentation	M, K, C, F, R	coordination, collaboration, reflection

The second outcome is a model for assessing communicative culture through authentic performance. Each of the 20 indicators is linked to specific communicative evidence: for example, M4 (digital ethics) can be observed in chat or electronic correspondence; C2 (argumentation) in a forum or negotiation; A2 (conflict management) in a conflict-based scenario; R3 (correction) by comparing initial and revised products; and R4 (transfer) in a new T₂ situation. Student self-assessment does not replace the primary outcome measure; it is treated as a supplementary data source alongside expert ratings of authentic communicative performance, digital interaction traces, and reflective writing.



The third outcome is a temporally standardized measurement structure. T_0 and T_1 assess the same five components of communicative culture but use different scenario content, whereas T_2 introduces a new context, addressee, and source of uncertainty rather than simply repeating the previous task. This structure helps distinguish an intervention effect from the alternative explanation that students merely remembered a specific task.

Table 3. T_0 – T_1 – T_2 diagnostic and pedagogical intervention protocol

Research stage	What is implemented?	What data are collected?
T_0 — baseline assessment	Students complete a scenario-based task approximating authentic professional activity. They prepare professional correspondence, discuss the problem in a group, and briefly analyze their own communicative performance.	Baseline scores based on the 20-indicator rubric; written responses; group-discussion outcomes; reflective writing.
12-week pedagogical intervention	The experimental group completes seven types of professional-communicative tasks. Each task includes discussion of a professional problem, creation of a communicative product, criteria-based peer feedback, self-analysis, and revision.	Initial and revised work products; electronic correspondence; forum and chat interaction; negotiation outcomes; group decisions; reflective writing.
T_1 — post-intervention assessment	A new professional scenario of equivalent difficulty to T_0 is administered. Students' post-intervention communicative performance is reassessed.	Post-intervention scores on the same 20 indicators and outcomes of authentic communicative performance, comparable with T_0 .



Research stage	What is implemented?	What data are collected?
T ₂ — transfer assessment in a new situation	Students receive an unfamiliar professional scenario with a changed addressee, communicative conditions, and problem. They must adapt the communicative strategy learned during the intervention to the new situation.	Indicators of independent strategy selection, justification of decisions, error correction, and transfer of communicative experience to new conditions.
Assessment quality control	Two raters independently assess the same materials. The assessment instruments are pilot-tested, and implementation of the pedagogical intervention is monitored using a dedicated fidelity checklist.	Inter-rater agreement; reliability evidence for the assessment instruments; and data on intervention fidelity.

The final sequence of the proposed mechanism can be summarized as follows:

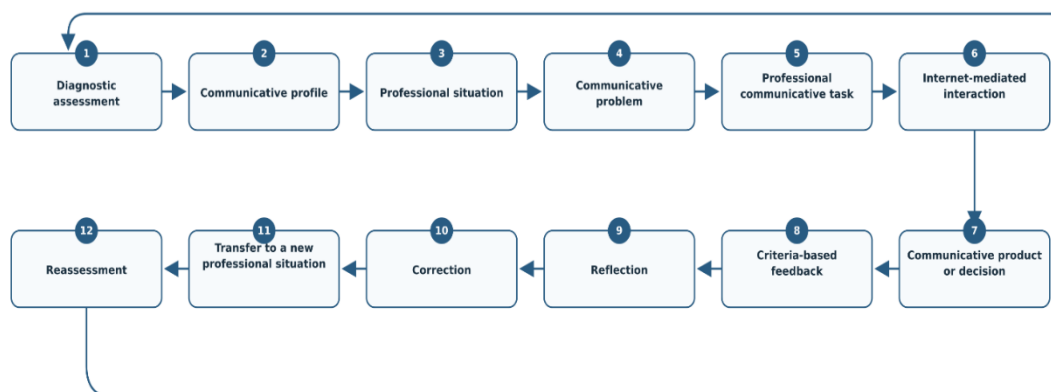


Figure 3. Cyclical mechanism for developing communicative culture through professional-communicative tasks

In this model, internet technology does not function as an independent pedagogical innovation; rather, it serves as the environment through which communicative functions are enacted.



4. DISCUSSION

The principal scientific contribution of the proposed system does not lie in the use of the internet itself, but in reorganizing the professional-communicative task as the central pedagogical unit for developing and assessing communicative culture. Shirmatov [10] demonstrated an existing line of research on developing communication culture through social networks, while Karabayeva [5] and Baimakhan et al. [2] examined relationships between digital tools and professional-communicative competence. Therefore, the novelty of this article is not claimed on the basis of being the “first” study of communicative culture on the internet. Rather, its contribution is limited to integrating professional situations, authentic communicative performance, five-component diagnostics, criteria-based feedback, reflective correction, and transfer within a single system.

The system extends the “technology–task–context alignment” principle from research on technology-mediated task-based language teaching to a broader pedagogical construct. Smith and González-Lloret [11] argue that technological affordances should be aligned with specific tasks. Accordingly, videoconferencing is selected in this model not because it is a “modern tool,” but because it enables observation of real-time responses and active listening during negotiation. A forum supports more elaborate argumentation and substantive responses to alternative positions, while a

cloud-based document enables observation of collaborative products and decision histories. Thus, the platform itself is not the method; its methodological value depends on the communicative activity organized through it.

An additional strength of the model is its emphasis on direct assessment of authentic communicative performance. The systematic review by Bhandari et al. [3] indicates substantial reliance on questionnaires and student self-reports in technology-mediated task-based studies. The proposed model does not reject self-assessment, but triangulates it with electronic correspondence, forum posts, negotiations, decision protocols, peer feedback, initial and revised task products, and observable behavior in transfer situations. This distinction helps separate the conclusion that “the student rates their own performance highly” from the conclusion that “the student demonstrates strong communicative performance in an authentic situation.”

The feedback and reflection mechanism also requires cautious interpretation. Although Jongsma et al. [4] identified a positive average effect for online peer feedback, this does not imply uniform effectiveness across all conditions. Therefore, the proposed system emphasizes not the mere presence of feedback but its alignment with predetermined criteria, its evidential basis, and its capacity to generate subsequent correction. If changes between a student’s initial and revised products are not



documented, reflection may remain a merely declarative element.

The transfer component is a key criterion that moves the model beyond simple task completion toward communicative development. Nickerson and Davidson [8] emphasize the potential of scenario-based assessment for developing professionally authentic digital communication. In T_2 , changes in the addressee, communication channel, and uncertainty are intended to determine whether students can adapt learned strategies to new conditions rather than reproduce a memorized response. However, conclusions about genuine transfer can be drawn only after actual T_2 data and appropriate reliability evidence have been obtained.

A practical advantage of the proposed model is its platform independence. Professional electronic correspondence may be conducted through an LMS or institutional email, evidence-based discussion through a forum, negotiation through videoconferencing, and collaborative projects through cloud-based documents. The key question for an instructor is therefore not “Which platform should we use?” but rather “Which communicative behavior should students be prompted to demonstrate through which professionally authentic task, what product should be collected, what criteria should guide feedback, and how should transfer to a new situation be assessed?”

The principal limitation of this article is that the reported outcomes are products

of methodological design and do not yet demonstrate the empirical effectiveness of the intervention. Consequently, claims such as “communicative culture increased,” “the model was effective,” or “the experimental group outperformed the control group” cannot be supported without actual T_0 – T_1 – T_2 data. The next stage should therefore involve a quasi-experimental study with an active control group, a prespecified primary outcome, assessment of inter-rater agreement, pilot testing of the equivalent difficulty of the T_0 and T_1 diagnostic tasks, intervention-fidelity monitoring, and a strategy for handling missing data. Only this empirical stage can test claims regarding the pedagogical effectiveness of the model.

5. CONCLUSION

Developing communicative culture in internet environments cannot be reduced to the use of technological tools. In the proposed framework, development is organized through professional-communicative tasks that follow a common cyclical logic: a professional situation and communicative problem generate authentic digital interaction; this interaction produces a communicative product; the product is revised through criteria-based feedback and reflection; and the acquired strategy is subsequently transferred to a new situation.

The methodological design produced three interrelated scientific-methodological outputs: (1) a system of seven types of professional-communicative tasks; (2) a preliminary model for assessing authentic



communicative performance based on five components and 20 indicators; and (3) a T_0 – T_1 – T_2 measurement and transfer protocol. These methodological outputs are not interpreted as evidence of empirical effectiveness; they are research instruments developed for subsequent experimental testing.

The methodological and scientific novelty of the article does not reside in the internet, an LMS, or social networking technology itself. At this methodological stage, the contribution lies in structurally defining the professional-communicative task as both a developmental and diagnostic pedagogical unit, developing a five-component assessment model for authentic communicative performance, and integrating the feedback → reflection → correction → transfer sequence into a single methodological mechanism. This

contribution is substantiated by the methodological products and their integration; no claim of empirical superiority is made before subsequent testing.

At the same time, firm conclusions regarding the educational effectiveness of the proposed system require actual quasi-experimental data. Subsequent research should report the group-by-time interaction for T_0 – T_1 , differentiated changes across the five components, the T_2 transfer outcome, effect sizes and 95% confidence intervals, content-validity indices for the assessment instruments (I-CVI, S-CVI/Ave, and, where appropriate, CVR), and inter-rater agreement. Only then can the methodological model be supported not only logically but also empirically.

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