ORGANIZATIONAL AND METHODOLOGICAL FOUNDATIONS FOR THE EXPERIMENTAL VERIFICATION OF A MODEL FOR DEVELOPING INFORMATION COMPETENCE AMONG HIGHER EDUCATION STUDENTS IN DISTANCE LEARNING

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Why information competence matters

Distance learning asks students to work with information more independently.

The challenge is not simply accessing digital tools — it is knowing how to use information critically, responsibly and effectively.

SEARCH	**Find relevant information**
EVALUATE	**Judge the credibility of sources**
ANALYSE	**Interpret and organise information**
USE ETHICALLY	**Respect integrity and information security**

Purpose of the study

To substantiate the organizational and methodological foundations for experimentally verifying a model that develops information competence among higher education students in distance learning.

01

MODEL

Examine the structure and logic of the proposed model.

02

IMPLEMENTATION

Describe the pedagogical conditions and learning technology.

03

ASSESSMENT

Compare competence development in experimental and control groups.

Methodological foundations

SYSTEMIC

Connect goals, content, methods and outcomes.

COMPETENCY-BASED

Focus on integrated learning outcomes.

ACTIVITY-ORIENTED

Develop competence through purposeful practice.

STUDENT-CENTRED

Support individual needs and learning trajectories.

THE STRUCTURAL–FUNCTIONAL MODEL

TARGET

Goals and objectives

CONTENT–ORGANIZATIONAL

Components, methods and tools

RESULT-ORIENTED

Criteria and competence levels

Four components of information competence

01 **TECHNOLOGICAL**

Use digital tools and online environments effectively.

02 **COGNITIVE**

Search, evaluate, analyse and organise information.

03 **COMMUNICATIVE**

Collaborate and communicate in digital settings.

04 **ETHICAL**

Act with academic integrity and protect information.

The model treats information competence as an integrated outcome — not just a set of technical skills.

Organization of the experimental verification

A comparative process examined changes under different educational conditions.

01 INITIAL DIAGNOSTICS

Establish the starting level

02 FORMATIVE INTERVENTION

Implement the proposed model

03 FINAL ASSESSMENT

Evaluate changes

CONTROL GROUPS

Continued existing educational practices

EXPERIMENTAL GROUPS

Studied with the proposed model and technology

Three pedagogical conditions

01	**UPDATED COURSE CONTENT**	Integrate information competence into disciplines and use modern Internet resources systematically.
02	**SPECIALISED COURSES**	Provide focused learning on information competence and digital technologies.
03	**SYSTEMATIC PEDAGOGICAL SUPPORT**	Combine diagnostic, consultative, motivational, coordinating, technological and reflective support.

MOODLE / A key digital environment for implementing the conditions and organizing distance learning

How was information competence assessed?

MOTIVATIONAL–PERSONAL

- Attitudes and interest
- Responsibility when using information
- Readiness for continuous self-improvement

PROFESSIONAL

- Purposeful search and source evaluation
- Information organisation and product creation
- Digital communication, integrity and security

REFLECTIVE

- Self-assessment of competence
- Recognition of strengths and gaps
- Planning further development

Together, the criteria capture attitudes, practical performance and reflective development.

Three stages of the pedagogical technology

1

MOTIVATIONAL–ORIENTATIONAL

Build motivation and clarify the role of information competence. Conduct initial diagnostics and establish individual learning trajectories.

2

OPERATIONAL–ACTIVITY

Move from simple to complex tasks: information search, source selection, critical analysis, projects and digital collaboration.

3

REFLECTIVE–CORRECTIVE

Use portfolios, peer assessment and self-diagnosis to consolidate learning and plan further development.

Motivation → Practice → Reflection

Main findings of the experimental implementation

Positive dynamics were reported

Students in the experimental groups demonstrated substantially higher levels of information competence across the defined criteria than students in the control groups.

As reported in the dissertation research

Important note

The supplied paper does not report sample sizes, percentages or numerical effect sizes. No figures have been inferred or invented here.

Interpretation: effectiveness is associated with the integrated system of model, conditions and pedagogical technology.

Conclusions and further research

01	**DIGITAL TOOLS ARE NOT ENOUGH**	Content, learning activities and pedagogical support need to work as one system.
02	**ASSESSMENT SHOULD BE MULTIDIMENSIONAL**	Motivational-personal, professional and reflective criteria reveal different aspects of competence.
03	**THE MODEL OFFERS A PRACTICAL FRAMEWORK**	Diagnosis, targeted implementation and final assessment create a coherent experimental process.

NEXT STEPS / Expand the empirical base • adapt across disciplines • personalise digital monitoring

Thank you for your attention.