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Monitoring the Interaction Culture of English Literature Students in the Digital Educational Environment of the University

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Abstract

The problem under investigation is relevant because it requires objective, empirical data with a scientific foundation to assess the degree of efficacy of the model developed through experimentation. The issues surrounding monitoring are extensively researched, and the number of scientific publications is rising. The examination of scientific literature, however, has revealed a deficiency in both theoretical and empirical support for the concerns raised by the monitoring of future instructors' interactions with English literature students in the university's digital environment. The article's goal is to use specialized instruments to examine and evaluate the findings from the pedagogical experiment's ascertaining stage in accordance with levels and criteria that are grounded in science. Questionnaires, testing, statistical and mathematical processing of the results, and their analysis were the main approaches used in the study of this issue. The study's findings included the identification of the pedagogical phenomenon's initial level and the collection of data for a comparative analysis of the diagnosis's ultimate outcomes. Teachers and researchers interested in experimental pedagogy may find the article's materials helpful.

Keywords: English Literature; Education; Digital Educational Environment.

1. Introduction

An increasing number of studies and publications in this field of pedagogy is a sign of global scientific interest in the issue of tracking and assessing university education. When examining issues pertaining to pedagogical monitoring, scientists must offer a thorough theoretical explanation for their selection of techniques, instruments, and criteria for gauging the phenomenon they are studying. They must also ascertain the students' levels of competency in a particular educational or personal attribute. State support consolidates the relevance of these studies within the framework of federal state third-generation educational standards. A new scientific trend that views monitoring as a system tool that uses computer technology to carry out the functions of data collection, diagnosis, information, and reflection is emerging in the context of today's digitalized educational environment. Scientists monitor pedagogical practices by taking into account different facets of teaching.

2. Literature Review

According to Borba et al. (2015), distance education has become more popular in recent years and is promoted as a way to address the issue of teaching that is concentrated in big urban centers as well as a means of democratizing educational opportunities. However, distance learning and online learning are not the same. Three generations of Brazilians have experienced distance learning. The first was characterized by correspondence education and focused on technical training in the early 1900s. The second generation, which flourished in the 1970s and 1980s, was strong in providing students with printed materials to supplement the lessons they learned via satellite TV. Offering higher education courses is one way that the third generation, which started in the mid-1990s and is still going strong today, is distinguished (Zabel & Almeida, 2015).

This nation was one of the first in the world to offer continuous online courses in mathematics education for teachers, having done so since 2000. By extending the research's geographical boundaries beyond Brazil, we are able to locate works that address a variety of facets of online mathematics teacher education, particularly those related to interaction and digital technologies—two of our main research themes. For instance, Goos and Geiger (2012) discuss the theoretical concerns that guide the use and creation of virtual learning environments in the preparation of math teachers. These writers take into account the usefulness of social theories of learning and apply them to the conceptualization of technology-mediated communication.

Additionally, Kynigos and Kalogeria (2012) analyze interaction. The writers of the first piece make their case from a professional development perspective. They research the tools required by online teacher educators and how those tools evolve in response to the unique needs and competencies of the educators, among other factors. In the second piece, they examine the interactions between recently graduated teacher educators and their creations and designs within the framework of in-service training sessions they conducted for peers. In a collaborative problem-solving exercise, Clay et al. (2012) interpret the notion of collaboration as pertaining to interaction and how it supports teachers in developing mathematical knowledge for teaching (MKT) algebra. Given that physical distance necessitates the search for technological tools of communication, it follows that interaction is a crucial component of both digital technology use and online teacher education (Borba1 & Souza Chiari, 2018).

3. Methodology

In order to gather unbiased data for the experimental study, pedagogical research techniques like testing, questionnaires, and statistical and mathematical processing of the findings and their analysis were employed. There are currently recognized theoretical and practical prerequisites that support the growing importance of research in tracking the academic and personal accomplishments of college students. Scientists shed light on a variety of topics, including the general problems with how students' achievements are formed, the difficulties with managing the quality of bachelor's and master's degree programs through a variety of techniques, technological issues with monitoring in the field of education, and conditions for enhancing monitoring effectiveness.

4. Results

The Department of Pedagogy and Psychology at the University of Management "TISBI" served as the foundation for the experimental study. Participants in the educational experiment receive instruction in psychology and pedagogy, with a major in "Psychology and Social Pedagogy." Bachelors will be hired as "Social Tutors" after graduating. The phases of the educational trial were as follows: 1. Creating and refining the curriculum for the elective course "Digital resource creation in a humanitarian university." 2. Choosing the students who will participate in the experiment into the experimental and control groups. 3. Deciding which diagnostic methods to use for carrying out the preliminary, intermediate, and final observation of the educational phenomenon under study. 4. Keeping an eye on the future educators' interactional culture within the DEE during the experiment's ascertaining phase. 5. Creating and refining the questionnaire Self-evaluation of the degree of interaction culture in the online learning environment with the goal of determining the level of the phenomenon being studied at the ascertaining stage, as well as the survey completed by students at this point in the experiment. 6. Examination and adjustment of the experiment's results during the ascertaining phase. 7. Using the DEE's Model of Development of Future Teachers' Interaction Culture in the Actual Educational Process. 8. Tracking the degree of interactional culture among aspiring teachers in the DEE at the experiment's conclusion. 9. A last survey for experiment participants to self-evaluate. 10. Processing, analyzing, and summarizing the results of an educational experiment mathematically.

For the experiment, two groups of second-year students were chosen. The experimental group consisted of 24 students, while the control group consisted of 22 students. Students' curriculum was expanded to include an optional course on creating digital educational resources in a humanitarian university in October 2020. The discipline's structure comprised the following: Volume—1 credit, or 36 academic hours total—Students' contact work with the teacher—12 academic hours; Lecture-style classes—4 academic hours; Practical classes—8 academic hours; and Student Self-Study Work—24 academic hours. A credit served as the intermediate control mechanism.

There were twenty-four students enrolled in the elective. For the educational experiment, they established an experimental group. Twenty-two students who did not attend the elective made up the control group. This discipline,

which relates to the variable part, was added to the main professional educational program "Psychological and Pedagogical Education," training profile "Psychology and Social Pedagogy." The aim of becoming proficient in the field the goal of developing digital educational resources in a humanitarian university was to foster future teachers' culture of interaction within the institution's digital learning environment.

The discipline's goals were to: Form and hone interpersonal skills for group collaboration; development of information and communication technology skills for the creation of foundational and supplementary educational programs; development of abilities to track and assess how students' educational outcomes are being formed, as well as to recognize and address learning challenges. Even after they have been defined in the abstract, define acronyms and abbreviations whenever they are used for the first time in the text. If they are not avoidable, do not use abbreviations in the title or heads.

First, the diagnostic techniques were established, followed by the identification and theoretical justification of measurement criteria, in order to assess the degree of interaction culture among English literature students at the university's DEE. The highest possible score for each assessed aspect of the interaction culture of English literature students is also shown in Table 1. It was possible for us to conduct both quantitative and qualitative analysis by using this monitoring complex.

Table 1. *Diagnostic Methods*

№	A measured component of interaction culture of English literature students	Diagnostic method of component level assessment	Maximum score
1	Motivational focus on professional and pedagogical competence in digital educational technologies	Methodology for assessing the degree of satisfaction with the profession of a teacher by N. V. Kuzmina and A. A. Rean	50
2	Focus on development and creative self-realization in the professional sphere	Modified methodology by N. A. Litvintseva "Identification of teachers' ability to creativity and self-development"	50

A modified version of N. V. Kuzmina and A. A. Rean's methodology was used to gauge teachers' level of job satisfaction in order to diagnose their motivational orientation to professional and pedagogical competence in digital educational technologies.

We computed the significance coefficient (SC) for each of the eleven proposed factors. The following formula was used to get the significance coefficient:

$$SC = \frac{(n+) - (n-)}{N}$$

Where (n+) is the number of subjects who noted this factor in column A, and (n-) is the number of subjects who noted this factor in column B. N is the sample size (number of subjects). The range of the significance coefficient is -1 to + 1. In order to prevent methodological errors in the interpretation of the results, the ratios (n +) and (n -) were taken into consideration in addition to the final SC indicator. Both the first and second aspects served as the foundation for the interpretation. In other words, the factor's low coefficient of significance (near zero) did not yet imply its total insignificance. The collected data revealed a low overall degree of job satisfaction (SC - significance coefficient = - 0.10) and varying degrees of significance for the factors pertaining to the profession's attractiveness. Working with people (SC = + 0.89), having a job that reflects the student's character (SC = + 0.67), and needing constant creativity (SC = + 0.49) were the most favorable factors. The respondents were negatively impacted by the following factors: low pay (SC = - 1.00), frequent social interaction (SC = -1.00), long workdays (SC = -0.93), and the inability to gain respect and recognition from others (SC = - 0.56). The next logical standard for evaluating the degree of the interactional culture among aspiring teachers in DEE is now to concentrate on professional development and creative self-realization. The altered approach employed by N. A. Litvintseva Processing the findings of a study involving a group of students makes it relevant and practical to identify the creativity and self-development skills of teachers. The following outcomes were attained as a result of data processing: Ten students received 34–50 points. They actively recognize the need for personal growth; 25 students scored between 17 and 33 points. These students lack a well-established self-development system, and their orientation is highly conditional—11 of them scored between 1 and 16 points. It has reached the point of no further development.

As a result, just 10 of the 46 aspiring social educators work toward their own growth; the rest are able to "create themselves," get better, understand, look for, and find. Due to obstacles and circumstances, a sizable portion of students enrolled in the 11th grade, who will become future teachers, struggle to establish a system of self-development. The data gathered during the diagnosis phase of the experiment, in both the control and experimental groups, is displayed in Table 2.

Table 2. *Diagnosis Data*

№	Group	1-16 points (number of students / %)	17-33 points (number of students / %)	34-50 points (number of students / %)
1	Control group	4 / 18.2	12 / 54.5	6 / 27.3
2	Experimental group	7 / 29.2	13 / 54.2	4 / 16.6

The nonparametric Mann-Whitney U-test, a statistical technique for evaluating the differences between two independent samples by the level of a quantitative indicator, was employed to verify the validity of the results. When comparing small samples, the U-criterion is appropriate. At the experiment's ascertaining stage, the Mann-Whitney U-criterion allowed researchers to evaluate the significance of variations in the levels of interaction and culture between English literature students in DEE and aspiring teachers in the control and experimental groups. Consequently, it has been demonstrated with a degree of 99% reliability that there are no significant differences between bachelors in the levels of interaction culture of English literature students in the DEE at the ascertaining stage of the pedagogical experiment.

5. Discussion

Scientists are interested in the substantive and structural aspects of university monitoring. The construction and operation of a system for monitoring the quality of educational activities for students pursuing higher education are examined by Bagautdinova et al. (2014), Eremeeva (2023), and Fakhrutdinova (2016); Miroshnikov & Mitroshenkova (2015) investigate the system for monitoring the quality of student education using a competence approach; Kormina & Naumova (2021) examine current trends in monitoring student satisfaction with the quality of education in the practice of foreign and Russian educational organizations. According to Kharlov (2021), one method for controlling the quality of education is to keep an eye on students' knowledge. Bakir & Mcneal (2010) are tackling the issue of setting up the student progress monitoring system. Simultaneously, the problems of keeping an eye on the interactional culture of aspiring teachers within the university's digital educational environment (DEE) have not been thoroughly examined or experimentally verified. For these reasons, an experimental study was required in order to gather empirical evidence and validate the previously supported hypothesis.

6. Conclusion

In order to determine the initial level of the studied pedagogical phenomenon and gather information for a comparative analysis of the diagnostic monitoring results, we relied on theoretical provisions during the experimental work process. These provisions state that motivational orientation diagnostics to professional and pedagogical competence and focus on development and creative self-realization during the ascertaining stage are significant. As part of the current educational system's competence-based approach, aspiring teachers must be cognizant of their own level of knowledge, skills, readiness, and interest in engaging in successful pedagogical activities in the university's digital learning environment. It is possible to realize that an activity has led to certain achievements that have professional and personal value for the teacher, which can become a motive for improvement. This can be achieved by first assessing one's own abilities before carrying out any learning process activity and then comparing the results with the analysis that follows after it is implemented. The analysis of the preliminary testing revealed that, during the ascertaining experiment, future teachers in the DEE in the control and experimental groups interacted at nearly the same level of culture. Simultaneously, while observing the foundational degree of interaction culture among English literature students in the DEE, it became evident that more diagnostic techniques, such as T. Leary's method of diagnosing interpersonal relations, needed to be employed in order to gather more objective data.

Acknowledgements

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