

# Further Vocational Training Educational Processes Monitoring

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## key words

educational process, evaluation tool (test), quality parameters, validity, reliability, statistical substantiation of test quality

We have considered one of the conditions for ensuring the quality of training for students of educational programs of further vocational training – monitoring of educational processes. We have identified the parameters of monitoring the educational process that affect the effectiveness of this activity, including the consistency of the assessment tools (tests) used and the validity of their application in specific conditions. We have analyzed the problems associated with the development and implementation of test materials in the educational process of further vocational training. There are difficulties caused by obtaining incorrect (unreliable) information about the level of formation of the student's competencies as a result of monitoring the FVT program development. The necessity of studying the consistency of evaluation tools used in monitoring the educational process and guaranteeing the receipt of correct information about the object of study was substantiated. We have determined the parameters that characterize the quality of the assessment tool, in particular, the validity, reliability in terms of stability and consistency of the test material. The relevance of developing a procedure for assessing the quality of test materials used in monitoring was substantiated. We argued the feasibility of using statistical methods to confirm the quality of the assessment tool. The proposed procedure for statistical substantiation of the quality of the test material used in monitoring the processes of educational activities provides the leaders of the further professional program with objective and reliable information about the level of students' training.

## References

1. Simkin A., Mozhaeva T., Proskurin A. The quality management system of additional professional education in higher educational institution on the basis of a standard quality system, *MATEC Web of Conferences: The conf. proceedings ISPCIME-2019*, 06010 P.
2. Avanesov V.S. Problema pedagogicheskikh izmereniy kachestva obrazovaniya [The problem of pedagogical measurements of the education quality], *Pedagogicheskie izmereniya*, 2015, no. 3, pp. 3–14.
3. Balta N., Eryilmaz A. Development of modern physics achievement test: validity and reliability study, *The European Educational Researcher*, 2020, no. 3(1), pp. 29–38.
4. Domnitskiy V.G., Kupaylov O.P., Yarmysh V.A. Otsenka kachestva prakticheskoy podgotovki obuchayushchegosya s ispol'zovaniem ekspertnoy sistemy [Assessment of the quality of practical training of a student using an expert system], *Innovatsionnye tekhnologii v obrazovatel'nom protsesse: Sb. materialov Vserossiyskoy zaochnoy nauch.-prakt. konf.*, Krasnodar, KVVAUL, 2019, pp. 79–84.
5. Effenberger T., Pelanek R. Validity and reliability of student models for problem-solving activities, *11-th International learning analytics and knowledge conference*, 2021, pp. 1–11.
6. Higgins L., Caze T., Maerlender A. Validity and reliability of baseline testing in a standardized environment, *Archives of Clinical Neuropsychology*, 2018, vol. 33, pp. 437–443.
7. Karlina A.A., Savinova V.V. Organizatsiya monitoringa kachestva obrazovaniya [Organization of education quality monitoring], *Vestnik mezhdunarodnogo instituta rynka*, 2019, no. 1, pp. 43–49.
8. Kruglov V.I., Gorlenko O.A., Borbats' N.M., Mozhaeva T.P., Proskurin A.S., Yashchenko V.V. Statisticheskie metody v otsenivanii kachestva obrazovaniya [Statistical methods in assessing the quality of education], St. Petersburg, *LETI*, 2018, 112 P.