



Ordering Logistics Management of Professional Standard Attribution of the Higher Education Specialist

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Abstract

There was determined the purpose of the study: on the basis of the conducted analysis of the current framework of the professional standards of a higher education specialist in Australia and the United Kingdom to substantiate the methodological principles for streamlining the attribution of the determination of the level of professional competence of a specialist in the field of higher education with the outline of the foundation descriptors in the context of the public management of the organization of remuneration. It was interpreted that basic principles and outlined distinctive-similar features in the presented standards; there was proposed the universalized construction of the mechanism of professional standard functioning with the use of a competency-based approach, that was generalized by the addition of the own term "personal professional effect" (PPE); there was constructed the mathematical formula which reveals the essence of the proposed term PPE and generalizes the tools to achieve this effect.

Keywords: Management; Higher education; State administration; Competence, Organization of remuneration; Professional standard.

1. Introduction

According to the analytical indicators of the evaluation of higher education institutions in different countries, there are fundamental differences in their treatment and measurement methods. In our opinion, the use of the evaluation method of the obtained general and professional competences, will complete the qualifications of specialists. Fundamental components of the assessment of a professional level of specialist competence, in the system of general assessment of knowledge, skills and abilities of potential applicants for the corresponding post will allow to individualize the remuneration for the work performed. Moreover, the very individualization of remuneration is justified precisely because it is aimed at the establishing of the social equality level of labor relations in society. The ratio of cash incomes of the most and the least secured groups of the population of Ukraine indicates a significant gap in the income of the most and the least secured 10% population groups (almost 6 times) (Shebanina, O., Klyuchnik, A., 2018). The subject of research and analysis is the framework of professional standards by the example of the higher education system of Australia and the United Kingdom. The purpose of this publication is to justify the methodological approach to streamlining the attribution of the level of professional competence of a specialist in higher education with the outline of foundation descriptors in the context of public administration by the organization of remuneration. The theory of human resources management based on the use of the approach to assessing the level of knowledge of professional competencies is formed by the following scientists: D. Dewey substantiated the concept of "learning through activity"; B. Skinner, who outlined the theory of operant and programmed learning; R. White and D. Ravens, as founders of motivational concepts. The most appropriate methods for assessing competencies are testing, questionnaires and solving problems according to scenarios (Laanpere M., Normak P., 2003). Efficiency is regarded as an important factor for both managers in different companies and organizations and customers who are interested in using the services related to these companies and organizations. (Alinezhad, A., 2016).

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In order to universalize the standard of professional competence of the higher education specialist among the world institutions of education in the conditions of globalization for the purpose of increasing the level of individualization of remuneration, we suggest the use of the method of empirical level of cognition (measurement, comparison, observation); the method of synthesis, which provides the ability to combine various elements, sides of an object into a single entity (system).

2. Research methods

“The past two decades have experienced an unprecedented rise in enterprise resource planning (ERP) systems implementation among asset-intensive organizations” (Njuaem, L., 2018). Through the use of effective methods of organization of remuneration, it is possible to ensure a significant increase in productivity and on this basis to increase the real wages. The research shows that employees also feel a sense of professional satisfaction, including the possibility of using skills and talent, and the freedom of action. However, there is a clear lack of satisfaction with the received remuneration for work (Czaplicka-Kozłowska, I., Stachowska, S., (2018). The relationship between learning outcomes with approaches to teaching, as well as learning and assessment is the key focus of the study of the European Commission's project "Configuring Educational Structures in Europe" (Unidesto, 2019). The professional competencies of a UK higher education specialist is outlined in a single document created by the State in association with the organizations: the Department of Economics, the Scottish Foundation for Education, the National Student Council, the Higher Education Academy, the union of the Great Britain universities and some public organizations, which forms the goals of the relevant standard (HEA, 2019). The scale of the outlined framework of the professional standard is summarized in three foundation vectors: the direction of the specialist's activity, the basic knowledge of the specialist, the professional values of the specialist which in their turn are dispersed to the characterizing descriptors. The UK national accreditation system recognizes the importance and value of the professional standards framework (UKPSF), accreditation requirements are formed in accordance with the descriptors provided by the national professional benchmarking of this standard. The main purpose of the Australian Higher Education Criteria and Standards Project is to ensure the dissemination of results, frameworks and documents that support its use. The structure itself provides benchmarking criteria and performance standards that can be adapted by different agencies according to their own criteria and training standards. The construction of the standard is based on the following principles: the quality of teaching and learning must be based on factual data; the teaching staff can use a matrix for career planning, while the preparation for certification and in preparation for applying for promotion; the criteria are best presented in a portfolio that documents professional achievements (Uniteachingcriteria, 2019). Characteristics of the main features of the professional competence standard of a teacher in Australia clearly indicates the motivating orientation of these provisions to material incentives for employees. The determinants of involvement are also indicated by: work environment, leadership, teamwork and cooperation, training and career development, remuneration, organization policy and quality of life at work (Anitha, J., 2014). We note the differentiation and some limited data views, therefore we consider it is necessary to generalize and streamline the attribution of the professional competence level of a specialist in higher education with the outlining of the foundation descriptors within the framework of globalization space as the basis for assessing professional personal efficiency and determining the individual cost of labor.

3. Research results and discussion

At the first stage of solving of the mentioned scientific problem, we interpret the basic principles of the professional standard of a higher education specialist proposed by the institutions of Australia and Great Britain (see Table. 1, 2).

In our opinion, it is necessary to substantiate a clear correlation between professional growth of a specialist as a result of rising and improvement of competencies, confirmed by the above arguments, and the possibility of obtaining the appropriate normatively guaranteed remuneration. It is this fact that forms the term of a competency-based approach, which we propose to treat as a "personal professional effect" (PPE) of specialist. In order to unify the attribution component of the data arrays of professional standards data from different countries, we will create a database of symbols, presented in Table 3.

Table 1. Information array of professional standards in the field of higher education in Australia

| № | Descriptors of professional standard | Minimum limits of standard | |
|---|---|---|--|
| | | Indicators of requirements | Indicators of confirmation |
| Qualification level: Lecturer (A), Lecturer (B), Senior Lecturer (C), Associate Professor (D), Professor (E) | | | |
| 1 | Design and planning of educational activities | - Planning of educational events - Expert evaluation of educational materials | - Report of the group coordinator - Student surveys and feedback - Student feedback from focus groups - Feedback from pedagogical environments - Expert assessment of course materials, programs - Awards for teaching materials - Examples of student works / abstracts - Systematic monitoring of students' learning outcomes - Collegiate review of the innovations introduction - Recognition from university, national and international colleagues - Excerpts from course materials demonstrating the inclusion of research in teaching activities - Information about grants and awards (successful and unsuccessful) - Detailed information about conferences and presentations - Copies of publications - Links and letters from colleagues - Participation of students in conferences, presentation of reports and / or publications - Number of students who have received degrees - Number of students in academic / research positions after graduation - Receiving prizes or awards by students - Reviews of educational materials - Recommendation letters and letters of thanks - For student surveys: average or above average grade for two consecutive years on all criteria (for Lecturer level (B), for three years for Senior Lecturer level (C), for 4 years for Associate Professor (D) and Professor (E)) |
| 2 | Teaching quality | - Focus on the student - Demonstration of understanding of aspects of effective teaching methods | |
| 3 | Assessment and provision of appropriate timely feedback | - Student support in the development and demonstration of learning outcomes - Providing timely feedback for students | |
| 4 | Creating an effective learning environment | - Creating an effective learning environment (in class, online) | |
| 5 | Integration of science, research and professional activities with pedagogical one | - Collegiate review of educational materials and curricula that demonstrate the interaction of teaching and research activities - Professional development related to teaching and learning (conferences / forums) - Inclusion of research within the framework of curricula and participation of students in scientific research | |
| 6 | Assessment of activity and continuous improvement of qualification | - Participation in training related to professional development - Personal assessment, which leads to changes in pedagogical practice | |
| 7 | Professional and personal growth | Professional qualities: - Realizes and consciously develops professional qualities Personal qualities: - Aware and consciously develops personal qualities | |

Table 2. Information array of professional standards in the field of higher education in the Great Britain

| № | Descriptors of professional standard | Minimum limits of standard | |
|---|---|---|---|
| | | Indicators of requirements | Indicators of confirmation |
| Qualification level: Fellow, Associate Fellow, Senior Fellow, Principal Fellow | | | |
| 1 | Planning and planning of training events and training programs | Appropriate professional practice, subject-pedagogical, scientific, innovative research or scholarship | Individuals who are able to provide evidence of a demonstration of understanding of specific aspects of effective learning, support methods as a key contribution to quality student learning |
| 2 | Differential learning methods | Relevant knowledge and understanding in all aspects of basic knowledge - Continuous training in teaching, training, and assessment | |
| 3 | Assessment and feedback from students | Successful coordination, support, supervision of the learning process | |
| 4 | Effective development learning environment and approaches to students mentoring | - Management and mentoring (individuals or groups) - Creating of the effective organizational policies and strategies for supporting and encouraging (for example, mentoring, coaching) in providing high-quality training | |
| 5 | Professional growth and development | - Use of scientifically-based approaches and research results in practice - Continuing education, professional development | |

Table 3. Base of symbols of the attribution component of information arrays

| № | A component of the attribution of a professional standard | Symbolic designation |
|---|---|--------------------------|
| 1 | Descriptors of the professional standard of higher education specialist | D1.....Dn |
| 2 | Qualification level of higher education specialist | F1.....Fn |
| 3 | Rates of standards | N min...max |
| 4 | Confirmation Indicators | I (ev)1... I (ev) n |
| 5 | Indicators of requirements | I (req) 1..... I (req) n |
| 6 | Professional competencies | K1.....Kn |
| 7 | Personal professional effect | PPE |

We will demonstrate schematically construction of the functioning of the professional standards of higher education in each country separately in order to provide a clear idea of the differences and similarities between them.

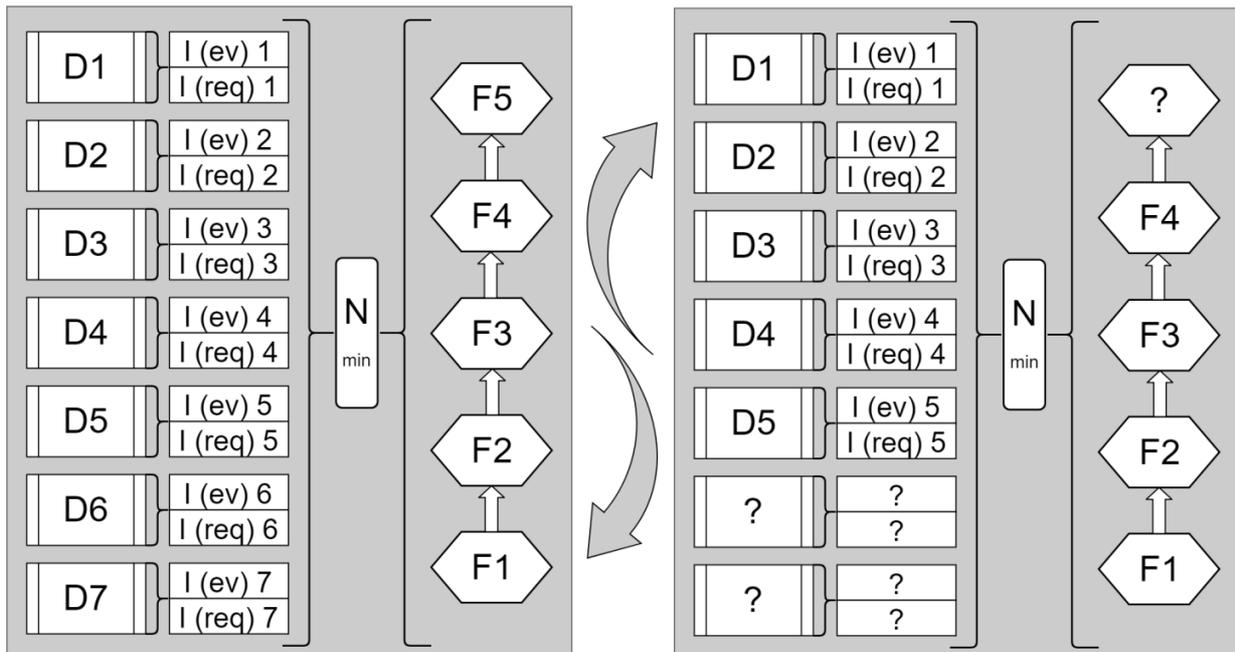


Figure 1. Attribution of the professional standards functioning in the Higher Education System of Australia and Great Britain

The analysis made it possible to outline the distinctive and similar features of higher education systems in these countries (Figure 1):

- Has a more differentiated spectrum of descriptors, respectively, it describes the main semantic text of the competences of a specialist Australian system in more details;
- Contains more detailed description of the proof component of the standard - the confirmatory indicators of the Australian system;
- the grading of the qualification levels of higher education professionals counts one level higher, thus allocating more time for the foundation and deepening of professional competence at the initial level of professional activity in the Australian system;
- The identical content essence of the competence of the specialist, generalized in the descriptor spectrum in both systems;
- There is no generalizing component of the standard attribution, the effectiveness and efficiency of the specialist, which determines the purpose of the growth of professional competence in both systems;
- There is no vivid and clear logical interconnectivity, which unites the attributes component that interact with the environment and interact with the target, into a single entity.

In view of the above, it is necessary to create a universalized construction of a mechanism for the functioning of the professional standard using a competency-based approach, generalized by the addition of the term personal professional effect (PPE), with logical dismemberment and combinations of certain aspects of the subject of research (Figure 2).

We propose to present in the form of a mathematical formula (1) the essence of the proposed term (PPE) which generalizes the purpose and tools of its achievement as the ability to perform certain work and achieve the desired result with the optimal cost of effort and confirms the right to belong to a professional team of specialists.

$$\min \xrightarrow{PPE} \max = (\sum_{1...n} K(D_n(I(ev)_{1...n} + I(req)_{1...n})) \tag{1}$$

The formalization of the process of achieving a beneficial effect from professional activity is obviously sums the need for the fulfillment of the requirements and the possession of evidence of confirmation within the framework of professional competencies that standardize the work of a specialist in order to develop a qualification that forms the differentiation of individualized labor costs.

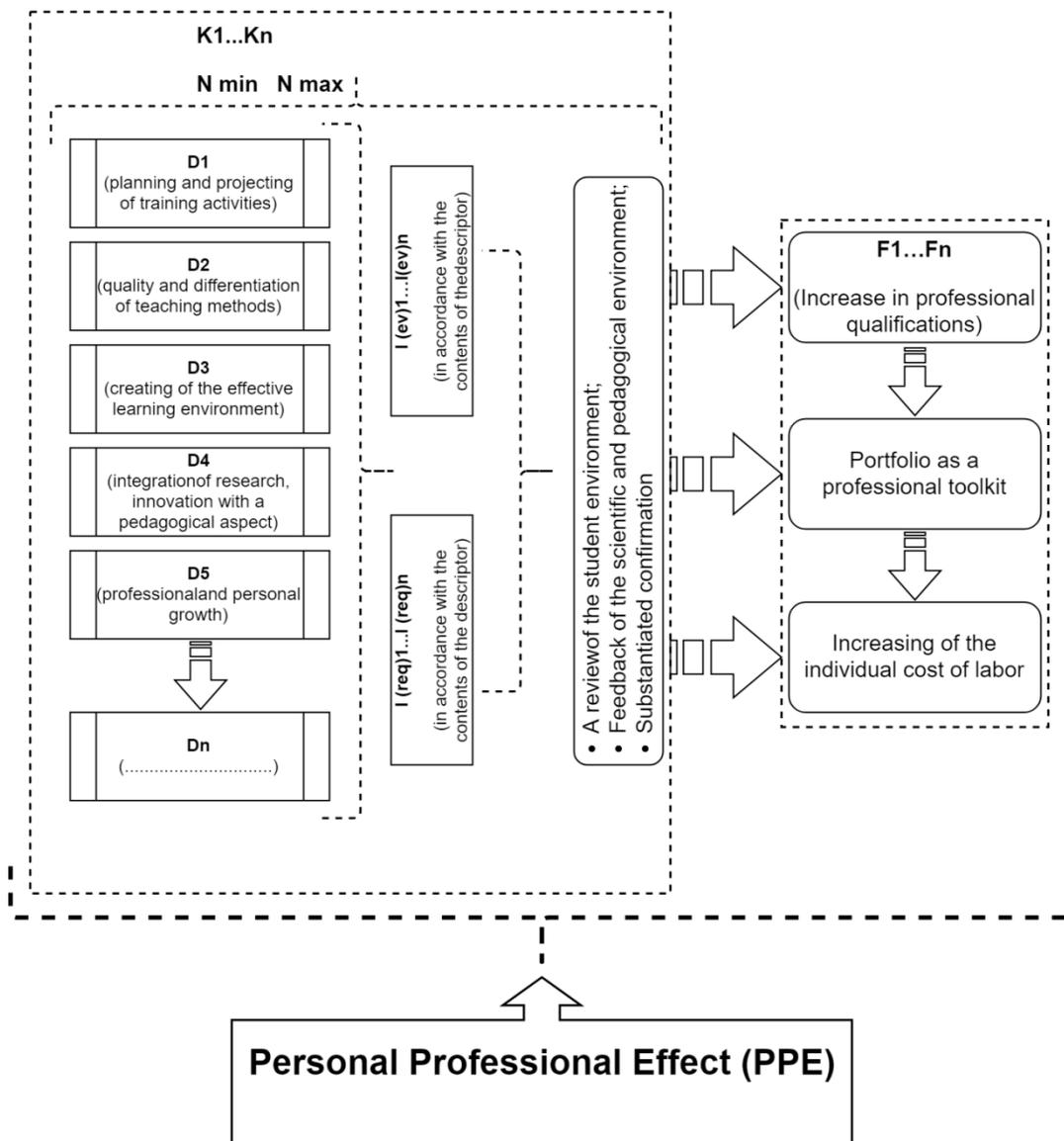


Figure 2. Mechanism of functioning of the professional standard of a specialist in the field of higher education

4. Conclusion

1. There was established that the definition of the level of professional competence involves the study and diagnosis of the ability to carry out professional activities, the quality of the performance of professional functions, the results of a specialist activity in the field of higher education.
2. There was interpreted the basics, outlined distinctive features in the submitted standards of higher education in Australia and the United Kingdom, and there was highlighted the lack of a generalizing attribution component of the standard, performance and effectiveness of a specialist that defines the goal of increasing of th professional competence in both of the studied higher education systems.
3. There was proposed the universalized construction of the mechanism of functioning of the professional standard with the use of a competency-based approach generalized by the addition of a personally defined term "personal professional effect" (PPE): the result of correlation between professional growth of a specialist as a result of enhancement and improvement of competencies, confirmed by the indicated arguments, and the possibility of obtaining the appropriate statutory guaranteed remuneration.

4. The economic substantiation of the essence of the personally proposed term (PPE) is presented in the form of a mathematical formula that arranges the attribution of the professional standard of a specialist in higher education with the outline of the foundation descriptors in the context of the public management of the organization of remuneration and accordingly summarizes the tools for achieving a useful result.

The results of the decision of this scientific task will contribute to ensuring a public consensus on the parity of professional development of specialists in the field of higher education, their integrated social implementation.

References

Alinezhad, A. (2016). Performance Evaluation in Green Supply Chain Using BSC, DEA and Data Mining. *International journal of supply and operations management*, Vol. 5(2), pp. 182-191.

Anitha, J. (2014). Determinants of Engagement and Their Impact on Employee Performance// *International Journal of Productivity and Performance Management*, Vol. 63(3), pp. 308–323.

Australian University Teaching Criteria and Standards Framework. Retrieved from <http://uniteachingcriteria.edu.au/>. [2019 01 04]

Czaplicka-Kozłowska, I. Z., and Stachowska, S. (2018). Factors Shaping Engagement of Employees on the Example of University Workers. *Management Theory and Studies for Rural Business and Infrastructure Development*, Vol. 40(4), pp. 455–466.

Gasanov, S., Kotlyarevsky, Ya., Melnikov, O., Kniaziev, S., Shtangret, A., Semenyuk, E.(2019). Methodological Approaches to Labor Norming in Scholarly Research and Development. *Science and innovation*, Vol. 15(1), pp. 5-24.

Laanpere, M., and Normak P. (2003). Training teachers to become educational software developers. *Journal of Digital Contents*, Vol. 1(1), pp. 146 – 150.

Njualem, L. (2018). Exploring the Effects of Enterprise Resource Planning Systems on Direct Procurement: An Upstream Asset-intensive Industry Perspective. *International journal of supply and operations management*, Vol. 5(4), pp. 396-402.

Shebanina, O., Klyuchnik, A., Burkovska, A., Caruso, D., and Burkovska, A. (2018). Providing Labor Income as a Supporting Factor of the Food Secusity. *Management Theory and Studies for Rural Business and Infrastructure Development*, 40(4), pp. 599–608.

Stuf A. (2012). Chto est kompetentsiya? Konstruktyvystskiy podkhod kak vekhod yz zameshatelstva//A. Stuf, R. L. Martens, Dzh. Dzh. Van Meryenboer. –<http://www.ht.ru/press/articles/print/art26.htm>. [2019 02 01]

The Higher Education Academy (HEA). Retrieved from <https://www.heacademy.ac.uk/about-us>. [2019 01 03]

Vasurenko, L., and Kuksa, I. (2018). Financial Provisions for Individualization of the Level of Loan Payment. *Financial and credit activity: problems of theory and practice*, Vol. 3(26), pp. 469-476.