

Validation of the Professional Competency Model of the Faculty Members According to the Ethical Components

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Abstract

Introduction: In today's evolving world, employees of organizations must have professional and ethical skills and competencies to perform their jobs and professions. Therefore, the present study was conducted with the aim of developing a model of professional competence of faculty members according to the ethical components in the Islamic Azad University.

Material and Methods: The combined research approach (qualitative and quantitative) was exploratory and confirmatory. In the qualitative part, the foundation data approach was used. Society, professional qualification experts, professors of Islamic Azad University, evaluation experts in higher education and policy makers in the field of higher education were selected by snowball sampling of 16 people. The interview tool was semi-structured. For data analysis, the open and pivotal and selective coding process was used. In a small part of the community, there were teachers, teaching assistants, specialized personnel and specialists in the field of professional competence of Islamic Azad University, from which 385 samples were randomly selected. The questionnaire was made by a researcher. For data analysis, the second type of exploratory and confirmatory factor analysis method and Pearson correlation coefficient matrix and structural equation model were used using SPSS 22 software and AMOS 24 software.

Results: The results showed that in general, the professional competence of the faculty members can be classified into three areas: knowledge (general, individual, internal and external), ability (cognitive, sensory and motor) and skill (basic, management and social).

Conclusions: The present study identified three main categories of competence that were related to the work of Azad University teachers. Therefore, the information provided in this study can be used to assess the qualifications of newly hired teachers in different stages of their teaching and activities and to develop a curriculum accordingly.

Keywords: Professional Competence, Ethical Components, Faculty Members

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INTRODUCTION

In public terms, competence means "sufficient means for the necessities and facilities of life", which refers to sufficient resources that facilitate a decent livelihood. From a linguistic point of view, competence also refers to the knowledge of the use of language. In addition, competence addresses the characteristics that enable an individual to respond, including legal ability, power, morality, fitness, and ability, as well as readiness for change [1]. Competence is therefore used to convey a variety of different (multi-meaning) meanings, such as moral, social, professional, or professional competencies [2]. Synonyms are mainly used to describe the characteristics and components of competency. As some researchers [3] have pointed out, this concept recognizes the complexities of the task. It defines the ability of an intelligent person to provide solutions in complex

situations. Teachers' competence is defined as their proven ability to use their knowledge and skills. The term also describes their responsibility and independence; when faced with uncertainty, they make decisions, act quickly, and accept risks. Becoming a professional is also a process by which performing a profession or job requires special skills [4]. Researchers [5] have noted that terms of competence, competency, and competencies are often used interchangeably, which can be confusing. Competence refers to the aspects of the job that an employee can do.

Competence is defined as the behaviors that an employee must demonstrate in order to perform the job effectively. Competencies refer to the following behavioral traits such as moral and social characteristics [6].

Competence is a specific field and functionally related to a specific field that can be acquired through learning. In some books [7] it is emphasized that mastery of competence can have different levels, which expresses the need to distinguish between simply meeting the standards and achieving excellence. Competence, while playing a vital role in effective performance, also includes the potential to address future problems and needs. In particular, the formation of a professional competence in a future specialist during practical training in connection with the expert with educational systems, which includes the following: integration of personal, professional, financial, technical and educational resources; Innovative training of specialists in a specific environment; Adaptation of scientific projects to the characteristics of practical and innovative learning processes. In this case, the analysis of future careers is of practical importance. Learns professional activities, uses his observations and perceptions to show the vital importance of the objects under study and to understand the principles of his actions and their application in new situations. In addition, it creates the necessary social environment that stimulates self-improvement, personality development and realization [8]. Each country identifies specific competencies based on its priorities and interactions with the professional field [9]. Higher education institutions cannot be exempt from this. They must prepare students to face the professional and personal challenges that are increasingly imposed by a complex society. To improve higher education based on competency development, it is necessary to revise the curriculum to change the teaching and learning methods in the classroom [10]. Higher education is a place for the development of human capital as an important and fundamental issue. This means that the selection, development and evaluation of teachers and professors are the keys to increase their effectiveness and, in turn, lead to improved teaching and learning of students, and this also requires that all aspects of teachers and educators revolve around different teaching scales [11]. Teachers are one of the most important elements of the educational system that with their special characteristics can meet the needs of learners and foster their creativity and innovation [12]. The five characteristics of ideal professors from the researchers' point of view are: having a high level of subject knowledge, ethics, dignity, communication skills, attractive personality and ability to present a subject [13]. On the other hand, some researchers [14] have divided the professional competencies of teachers into three categories: professional knowledge, professional practice and professional commitment. Researcher [15] has divided

the professional competencies of a teacher into four parts: 1- Comprehensive development of students and pupils (competency-oriented) 2- Developing knowledge of working with others 3- Knowing oneself and others (this competence is not formally reviewed) 4- Influence on minds and hearts. The professional qualifications of professors in the UK are also classified into three related sections:

1- Professional experiences and values (this competency includes the moral attitude and commitment that every teacher is expected to have)

2- Knowledge and understanding (This competence requires an experienced teacher who is aware of the subject of his teaching; a teacher who has a clear understanding of how learners and students' academic progress)

3. The teaching of this competency is related to the skills of planning, monitoring and evaluation, teaching and classroom management, and the values and knowledge associated with paragraphs 1 and 2 are tied together [16]. Having the general competencies of professors is of fundamental importance in terms of creating more efficient and improving educational processes. Knowing how much these professors have is also important in creating a competency index. Accordingly, establishing a system to increase the competency of faculty candidates in higher education is crucial. Therefore, and according to what has been said, and considering that a reflection on previous studies shows that different classifications of competencies required by teachers have been implemented, and various studies have pointed to various competencies, and the gap of comprehensive research in this field for professors in higher education It is fully felt and on the other hand, considering the concerns and interests of Azad University officials about the need for professional qualifications of professors and the improvement of these competencies and planning to improve the competencies, one of the main concerns of the researcher is to be able to compile a model of competencies required by faculty members. Slow validation. Therefore, the main question and the main issue of the research is based on what are the main and sub-elements of the professional competence of the professors of the Islamic Azad University and to what extent are these elements valid in the faculty members of the Islamic Azad University?

MATERIAL AND METHODS

The combined research approach (qualitative and quantitative) was exploratory and confirmatory. Some experts consider combined research methods as the third wave of methodology and some as the third methodological movement and believe that the

emergence of this movement was formed in response to the limitations of quantitative and qualitative methods. In the qualitative part, the grounded theory was used. Grounded theory is an inductive research method that allows researchers in various fields to formulate their own theory through comparative analysis of observations instead of relying on existing theories; In other words, in grounded theory, research starts from a field of study and is given the opportunity to show what is relevant and relevant to the subject, and therefore is considered a kind of exploratory research. Society, professional qualification experts, professors of Islamic Azad University, evaluation experts in higher education and policy makers in the field of higher education were selected by snowball sampling method until the theoretical saturation of 16 people. The interview tool was semi-structured. Open, axial and selective coding process was used to analyze the information. To ensure the validity of the first stage of the research and to ensure the accuracy of the findings from the perspective of the researcher, participants or readers of the research report, the following steps were performed:

Adaptation by members: Some participants reviewed the final report of the first phase, the analysis process, or the categories obtained, and expressed their views on them.

Peer review: Supervisors and advisors of a higher education specialist and two PhD students in higher education reviewed the findings and commented on them.

Participatory research: Participants were simultaneously assisted in analyzing and interpreting the data.

Researcher rethinking: An attempt was made to control the researcher bias and prejudice

To calculate the reliability of the retest, several interviews were selected from the interviews as a sample and each of them was coded twice by the same researcher in a short and specific time interval.

Due to the fact that this reliability in the present study was more than 60%, the reliability of the coding interviews in this study is confirmed.

In a small part of the teaching community, there were teaching assistants, specialized personnel and specialists in the field of professional competence of the Islamic Azad University (meaning specialists, professors, researchers and officials who had writings on professional competence). From the target population, 385 samples were randomly selected. A 90-item questionnaire was developed to collect the required data for evaluating the qualitative model of the research. In compiling this questionnaire, in order to maintain the living spirit of the research, an attempt was made to use the points, interpretations and terms derived from the quotations of the participants in the research, and all questions were formulated based on open codes extracted from interviews. Its items were also adjusted from very low (1) to very high (5) based on the 5-point Likert scale. In this questionnaire for data collection, there were 90 questions, which after the final implementation of 81 questions of the questionnaire and segregation of questions based on components and Cronbach's alpha of each of the factors obtained for the initial implementation of 41 questionnaires are presented in [Table 1](#).

Table 1. Questions, components and reliability of the components of the questionnaire

Main factors / Side factors	No. questions	Cronbach's alpha
Knowledge		0.719
General	3	
Individual	4	
Internal	3	
External	3	
Ability		0.961
Cognitive	18	
Motor	9	
Sensory	12	
Skills		0.875
Basic	9	
Social	5	
Managerial	15	
Total	81	0.936

In order to check the content validity of the measure, after preparing a questionnaire based on the open codes mentioned by key informants, the opinions of 15 professors, experts and specialists on the subject of professional competence of the professors of the Islamic

Azad University were used and their opinions were applied.

In order to ensure the reliability of the questionnaire and the internal consistency of the questions, Cronbach's alpha coefficient was calculated for the pilot sample.

Table 2. Findings from the interview for the professional competence of the faculty members

Main Factors / Sub-Factors / Layers	Subcategories
Knowledge	
Knowledge	
General	Possessing media and information and communication technology literacy, psychological knowledge, knowledge of personal growth and development, social knowledge, knowledge of communication with people, having up-to-date information and knowledge, familiarity with moral values and philosophy governing society, mastery of foreign languages, familiarity with mission , goals, moral values, mission and challenges of the organization, familiarity with emotional and cognitive domains, familiarity with art and aesthetics, familiarity with writing and literature, familiarity with administrative rules and regulations, familiarity with the university system, familiarity with indigenous culture and moral and cultural values of community and university
Professional	Management knowledge, human resource management knowledge, time management knowledge, internship knowledge, course planning and design, familiarity with theories of teaching and learning information, familiarity with educational psychology, familiarity with curriculum management knowledge, patterns, techniques and teaching methods, relevance of the field academic with the field of study, familiarity with the knowledge of educational supervision and evaluation, familiarity with curriculum and educational planning, familiarity with teaching techniques and methods, research methods related to science and research ethics, discipline and software, familiarity with entrepreneurial activities, commercialization of academic activities
Ability	
Cognitive	
General	Motivational ability, influence ability, companionship ability, indefatigability, biological simplicity, participatory decision making, nurturer, emotional ability, emotional stability, cognitive ability, self-awareness, diagnostic ability, analytical thinking, use of all capacities, transformative, self-belief, idealism, application ability Media, ability to analyze, respond to the needs of society, strong communication skills, having a sense of companionship and empathy with others, motivating and trusting students, making appropriate and timely decisions, building trust and confidence in students, the ability to work well with others Professors and other staff
Professional	Mental ability, problem solving ability, creative thinking, mental dynamics, emotional ability, self-management ability, influence ability, flexibility, deductive reasoning, memory, innovation, perception speed, verbal communication ability, rationality, inductive reasoning, using positive activities and others, team building ability, classroom management ability, teaching ability
Motor	
General	Hand-arm flexibility, control accuracy, finger mastery, hand skills, body coordination, degree of control, body coordination, mental and personality health, physical ability, manual skills in doing things, high motor ability, writing ability
Professional	Ability to master the fingers, hand-arm attachment, precision in controlling motor self-awareness and mastering body movements, ability to react quickly to environmental movements
Sensory	
General	Auditory sensitivity of visual power and attention to the surrounding movements, empiricism for understanding things, control and self-management, adaptation to the environment, proper and appropriate thinking ability, attention to detail, ability to communicate with sensory power properly, ability to recognize
Professional	Ability to resolve conflict and emotional intelligence and organizational intelligence, ability to analyze and interpret problems, problem solving power, communication techniques, positive, extroverted, continuous learning, creative thinking, innovation and initiative, emotion control
Skills	
Basic	
General	Active learning, active listening, comprehension of reading, speaking and writing, skills in applying learning strategies
Professional	Eloquence, accessibility, ability to manage oneself, creativity and innovation, analytical, motivating, ability to influence, risk-taking, discipline, power of thought, critical thinking, critical, ability to produce science, collective and responsible thinking, theorist
Managerial	
General	Resource management, financial resource management skills, material resource management skills and human resource management skills, time management skills, conflict management skills
Professional	Ability to motivate, risk-taking, ability to influence, communication ability, responsibility, ability to accompany, punctuation, deep perception, ability to manage the class, organizing and planning skills
Social	
General	Continuous and active learning skills, active and effective listening skills, learning strategies skills, critical thinking skills, verbal skills, writing skills, human and administrative resource management skills, correct social comprehension skills, classroom educational management skills
Professional	Persuasion and persuasion skills, negotiation skills, negotiation and bargaining skills, perceptual skills, technical skills related to the field, influence and use of up-to-date technology, classroom conflict management, classroom management, having appropriate research background, information technology skills and communication in the classroom, utilizing participatory styles in the classroom, skills in change and motivation techniques, empowerment and growth and development of people, criticism

The obtained alpha value indicated the reliability of the questionnaire and the internal consistency of its items. As in all components and sub-components, Cronbach's alpha coefficient is more than 0.65, which indicates the high reliability of the components under study.

For data analysis, the second type of exploratory and confirmatory factor analysis method and Pearson correlation coefficient matrix and structural equation model were used using SPSS 22 software and AMOS 24 software.

RESULTS

Qualitative section results

As mentioned, the foundation data method was used in the qualitative section. After the implementation of the interviews, in order to encrypt the data, the text of the interviews was studied several times and the first level encryption process was performed by identifying and highlighting the words, sentences, paragraphs and themes of the analysis unit. Finally, the most important part of this method, which shows the researcher's abilities, is to create the main and sub-categories. In Table 2, the results of the interviews were classified as the main components of the research.

Quantitative section results

To what extent is the accreditation model of the professional competency model of Islamic Azad University professors valid?

As mentioned, based on the findings of the qualitative research stage and the paradigm model obtained, a hypothetical model was developed that based on the narrative expression of the components obtained during the axial and selective coding paradigm, the relationships between them can be presented in the final model.

Structural equation analysis and AMOS software were used to answer the second main research question: "Is the accreditation model of the professional competency model of Islamic Azad University professors valid?" Based on the paradigm model derived from qualitative data analysis and factors resulting from second-order factor analysis, a hypothetical model was designed and direct and indirect relationships between variables were identified. According to the conceptual model obtained from the qualitative stage of the research, each of the model constructs are listed as variables in the hypothetical model of the research. Table 3 shows the correlation coefficients between these general factors.

Table 3. Correlation coefficients between exogenous and endogenous factors

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	1													
2	.359**	1												
3	.365**	.333**	1											
4	.333**	.352**	.324**	1										
5	.706**	.716**	.728**	.700**	1									
6	.339**	.395**	.289**	.317**	.468**	1								
7	.235**	.408**	.293**	.262**	.421**	.645**	1							
8	.339**	.365**	.382**	.280**	.481**	.605**	.592**	1						
9	.343**	.453**	.368**	.328**	.524**	.853**	.896**	.831**	1					
10	.262**	.285**	.268**	.228**	.366**	.544**	.421**	.473**	.547**	1				
11	.061	.001	.015	.088	.055	.246**	.207**	.231**	.261**	.675**	1			
12	.189**	.095	.126*	.095	.175**	.363**	.309**	.308**	.375**	.754**	.764**	1		
13	.187**	.137**	.148**	.150**	.217**	.422**	.343**	.370**	.433**	.891**	.900**	.926**	1	
14	.471**	.490**	.466**	.442**	.655**	.733**	.690**	.698**	.816**	.844**	.635**	.734**	.813**	1

Note: 1. General knowledge 2. Individual knowledge, 3. Internal knowledge, 4. External knowledge 5. Competence of knowledge 6. Cognitive ability: 7. Motor ability 8. Sensory ability 9. Abilities 10. Basic Skills 11. Management Skills 12. Social Skills 13. Skills competencies 14. Professional competencies *P<0.01, **P<0.05

Table 4. Fits of structural research equation model

Index	Criteria	Fit adequacy rate
χ^2/df	Ratio between 2, 3 and less	1.928
RMSEA	RMSEA≤0.08	0.51
NFI	NFI≥0.90	0.94
CFI	CFI≥0.90	0.94
GFI	GFI≥0.90	0.93

As some researchers [17] have explained, during the modeling process, the researcher determines the variables within the model based on theory or research,

but there is a possibility of incorrectly integrating or deleting the variables in the model. "If the fit criteria of the original model were not strong enough, then the next

step is to modify the model, followed by the evaluation of the modified model," they said. According to the initial model and the findings obtained in the qualitative stage about the relationships between variables, the model was modified several times by eliminating weak relationships. The following model due to its compliance with the findings of qualitative analysis; Initial model and hypothetical model; Satisfaction of the model fit indices and the significance of its statistical estimates were considered to provide the data.

Root mean square error of approximation (RMSEA), normed fit index (NFI), comparative fit index (CFI) and goodness of fit index (GFI) and the level of significance of the estimates indicate that the model has a good fit with the data (Table 4).

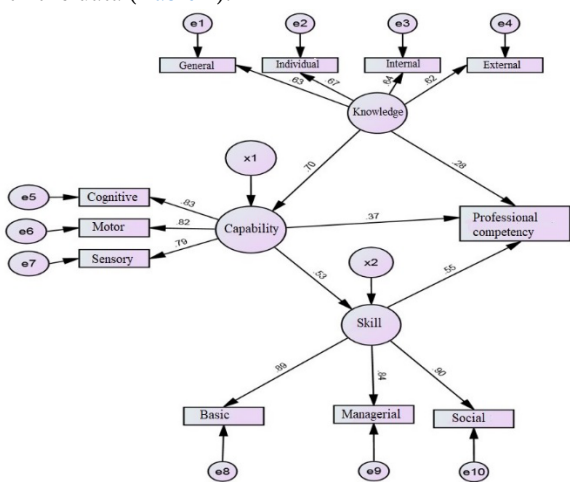


Figure 1. Standardized coefficients of the modified model

The results of the table above indicate that all indicators are reported at a very good level and the model fits well with the data and indicates that there is a linear relationship between the variables. Predictive variables also explained 60% of the variance of dependent variables.

DISCUSSION

Findings showed that the professional competence of university professors is formed in three main dimensions including knowledge, ability and skill, and each of the main components is composed of main and sub-components. The main components of knowledge (general knowledge of internal and external) and ability (cognitive, motor and sensory) skills (basic skills of resource management and social skills) are also sub-components (general and specialized). Consistent with the present study, the results of the present study [18] showed that the dimensions and components of the competency model of education managers to use in the assessment center are: knowledge competence (general

management knowledge, up-to-date knowledge in educational management, knowledge in education And teaching, environmental knowledge, knowledge of related executive laws and knowledge of information technology), professional (good ethics, commitment to values, honesty and flexibility, perseverance and kindness, customer orientation and conflict management), personality traits (model being, responsibility, commitment, participation, learning, perfectionism, self-promotion, self-management and confidence (executive (information management, risk management, resource management, timely feedback, operational planning and decision skills) , development of people and empowerment, teamwork and team building, influence and influence, talent management, succession and inspiration) communication (listening skills, ethics and good behavior, ability to communicate with employees, understand the views of others, ability to communicate clearly, the ability to communicate with school principals and the ability to interact with parents students (creativity, innovation, logical thinking and insight). Researchers [19] consider teaching competencies as a set of personal characteristics, knowledge, skills and attitudes in order to achieve effective performance and also state that in different areas of teaching, attention should be paid to educational skills. Some researchers [20] have shown that teachers' competencies indicate the capacity to cope with certain tasks or challenges. A study [21] shows that classroom discourse implementation involves learners' independence and effective learning. To create an open and supportive space, instructors are required to take on the role of facilitator. Supportive role has significant meaning; therefore, it should be taught in educators. Also, in line with the results of the present study, some researches [22] showed that the competency model of educational managers has 4 dimensions, 29 components and 131 indicators: A) Value dimension with 5 components: God-centeredness, right orientation, justice and oppression, equanimity and hereafter and orbital province and 25 indicators. B) An attitude with 5 components: attitude towards existence, attitude towards human beings, attitude towards this world and the hereafter, attitude towards management and attitude towards supervision and 25 indicators. C) The secretary dimension with 10 components: sincerity, moderation, hope, trust, piety, remembrance of God, thanksgiving, fulfillment of the covenant, description of Sadr and fidelity and 34 indicators. D) Knowledge dimension with 9 components: planning ability, organizing ability, motivation ability, leadership ability, empowerment

ability, evaluation ability, ability to create the desired organizational culture, decision making ability and monitoring ability and control and 47 indicators.

It should be noted that the conceptual framework of this model is consistent with the findings of some studies [23-35].

Based on the thought patterns of the present study and the results obtained, the following suggestions are made about the professional competence of university professors:

In the present study, university professors, experts in the field of professional competence skills have also evaluated as desirable. Although this will be a strength for teachers, skills training requires continuous practice and skill development. Therefore, constant attention to skills is recommended.

The dimension examination of the abilities according to the experts has indicated a relatively favorable situation, and the result and attention to them is recommended more than before.

In the present study, competencies such as self-knowledge, creative thinking ability, critical thinking ability, imaginative ability and moral orientation, and positive and behavioral characteristics have been emphasized by experts, and it is necessary to emphasize these dimensions of competence as native.

In the present study, knowledge, ability and skill were recognized as the main focus of competence by education experts and university professors, and they have been given the most importance. Therefore, it is suggested that due to the importance of competencies from the point of view of experts, it should be emphasized in the process of recruitment, recruitment and improvement.

It is suggested that the model resulting from this research be provided to the executive board of faculty members of the Islamic Azad University of the country to be used when recruiting faculty members for this university.

In addition, it is suggested that an arrangement be made to introduce this model to all faculty members of the country's universities through a video conferencing program so that faculty members can adapt their competencies and competencies to it and plan to develop the required competencies.

It is also suggested that this model be introduced to the heads of departments across the country during a workshop so that it can be used when interviewing visiting professors and determining their qualifications.

The Vice Chancellor for Supervision, Evaluation and Quality Assurance of the University can also use this model in designing and implementing the professional

development programs of the faculty members and also in compiling the sample evaluation sheets of the faculty members.

This study had the following limitations:

This research was a qualitative-quantitative exploratory study, so the findings of the present study have shown only some dimensions.

Another comprehensive statistical limitation of the present study was the professors of the faculty of the Islamic Azad University of Tehran. Therefore, its generalization to other groups should be done with caution.

In this study, data collection was done in person and sometimes 5 meetings were held to collect data, but unfortunately sometimes people were not present or refused to respond.

Another limitation was the lack of access and cooperation of university officials to answer the questions in the present study.

Lack of cooperation of Azad University officials to provide accurate statistics on the number of full-time staff members of the faculty in the units of Tehran Azad University

CONCLUSION

The present study identified three main categories of competency related to the work of Azad University lecturers and developed a model for the professional competence of faculty members, which is shown in Figure 2.

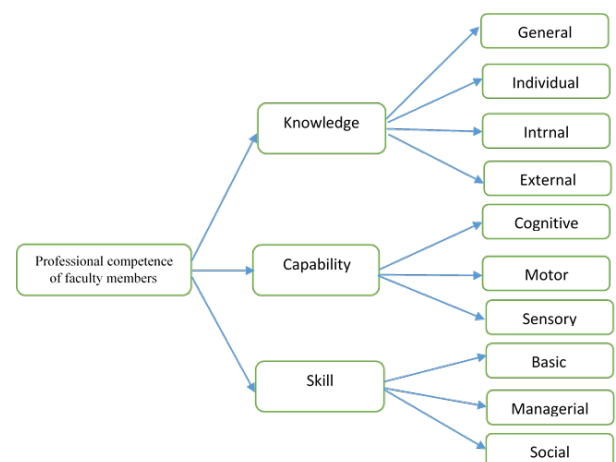


Figure 2. The final model of professional qualifications of professors of Islamic Azad University

In all three categories defined by the present model, moral components play a colorful role, and undoubtedly a competent professor, along with all his scientific characteristics, must have a sufficient amount of moral knowledge, ability to behave ethically and the level of

skills. The information provided in this study can be used to assess the qualifications of newly hired teachers in different stages of their teaching and activities and to develop a curriculum accordingly.

Ethical Consideration

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Conflict of Interest

The authors declare that there is no conflict of interests.

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