

## Validation of the Professional Qualifications Model for Multi-Grade Teachers

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### Abstract

**Introduction:** Teachers' professional qualifications are essential to ensure the quality of education and create effective learning environments. The aim of the study was to validate the professional qualifications model of multi-grade classroom teachers.

**Methodology:** The research method was descriptive survey type. The statistical population was education experts in the country, 20 people were selected by convenience sampling method. The data collection tool was a researcher-made questionnaire with 50 questions. This questionnaire was the result of the qualitative part of the research, in which a model of teachers' professional competence was developed. The questionnaire was provided to the experts in two stages, and after receiving their opinions, CVR and CVI were calculated and the validity of the model was confirmed.

**Findings:** Considering both CVR indices equal to or greater than 0.49 and CVI greater than 0.79, the model has the necessary and sufficient validity and it can be said that the components obtained in the qualitative section are the components of the professional competence model of teachers in multi-grade classes. The main components of the model included: ethical competence, communication competence, mastery of subject-specific educational knowledge, subject-specific knowledge competence, educational competence, competence in self-professional development, behavioral competence, biophysical competence, political competence, personality competence, emotional and attitudinal competence, religious-belief competence, general knowledge competence, cultural and social competence, educational management and leadership competence..

**Conclusion:** Given that the model is sufficiently comprehensive and its validity has been confirmed by experts in the field of education, its components are appropriate to the current needs of the teaching profession in multi-grade classrooms

**Key Words:** Professional qualifications, multi-grade teachers, accreditation.

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### ***Introduction***

Multi-grade classes have been established in rural communities and sparsely populated areas due to gradual or declining population. These classes exist in scattered areas of various countries such as China, Australia, Turkey, Sweden and Finland. Multi-grade classes are mainly established out of necessity and in rural and remote areas. The reasons for establishing multi-grade classes include: overall enrollment rate, enrollment rate per grade, number of available teachers and efficient use of resources (Saqlin, 2015).

Multi-grade teaching refers to a type of teaching in primary education in which students from multiple grades are taught in one class by one teacher, or it can be defined as situations in which students of different ages and abilities are all taught in the same class. In a specific definition of Multi-grade classes, this teaching refers to a mandatory pattern in teaching people with different educational levels in one class, which is mainly caused by limitations (Beahammer and Hascher, 2015). According to statistics from 1401, about 700 thousand students and more than 50 thousand teachers are working in multi-grade classes (Pour Qayyumi, 2022). The geographical and climatic situation of Iran, the rural and deprived areas, and the decrease in the student population in the primary school make it necessary to develop and pay attention to multi-grade classes.

Professional competence is defined as a set of interrelated knowledge, characteristics, attitudes and skills that have a significant impact on an individual's job. It is correlated with individual performance at work, which can be assessed by accepted standards and improved and developed through training. The certification of teachers to enter the profession is perhaps one of the most important decisions and can have a significant impact on improving teaching and learning in educational systems. Professional teachers are the key to success in the learning process in school; because only they can create an active situation for students in learning activities. It is believed that professional teachers can help students learn, find, manage, integrate their learning and solve problems related to knowledge; attitudes and values or life skills (Mortazavi, 2021).

Research has been conducted in the field of multi-grade classes, including Rafiei's research (۲۰۲۱), Designing a Competency Model for Multi-Grade School Teachers, Qojaly (۲۰۱۹), Identifying and Ranking Educational and Non-Educational Problems in Chaldran County Multi-Grade Classes. Abroad, the research of Massimanga (۲۰۱۹), Managing the Use of Course Resources in Multi-Grade Classes, (Engine, ۲۰۱۸) The Perspectives of Multi-Grade Class Teachers on Teaching Methods in These Classes, Case Study: Netherlands-Turkey, was also mentioned. The result of a review of the research conducted indicates that most of the research has examined the challenges, advantages, and disadvantages of multi-grade classes. Research that specifically addresses the competencies required of multi-grade class teachers and provides a structured and systematic model for the professional competency of multi-grade teachers was not available to the researcher. Therefore, this research deals with

the design and validation of a professional competency model for multi-grade teachers.

### *Methodology*

This research was conducted using a descriptive survey method. The statistical population of the quantitative part was education specialists in Iran, and 20 people were selected using the available sampling method.

In order to validate the components extracted in the qualitative stage of the research, a list of these components was prepared in the form of a 50-question questionnaire. The questionnaire was provided to the specialists in two stages. In the first stage, the following phrases were placed in front of each item: The item is necessary, the item is useful but not necessary, and the item is not necessary. By collecting the opinions of the specialists, the CVR value was calculated using the following formula.

$$CVR = \frac{n_e - N/2}{N/2}$$

In this formula, N is the total number of experts and Ne is the number of experts who selected the essential option. The CVR value depends on the number of experts participating in this section. Considering the number of experts in this study, which was 20, the CVR value should be 0.5 or more.

In the second stage of CVI, the validity of the model was examined. In this way, each item was preceded by the words irrelevant, needs major revision, relevant but needs revision, and completely relevant. The number of experts who chose options 3 and 4 was divided by the total number of experts. If the resulting value was less than 0.7, the item was rejected, if it was between 0.7 and 0.79, revision should be performed, and if it was greater than 0.79, it was acceptable

### *Research Findings*

In order to answer the second research question, whether the designed model of professional competence of teachers in multi-grade classes has the necessary validity from the experts' point of view?

The experts' point of view was used and two indices CVR and CVI were used. As the results of Table 3-4 show, according to both indices (CVR equal to or greater than 0.5 and CVI greater than 0.7), the model has the necessary and sufficient validity and it can be said that the components obtained in the qualitative section are the components of the model of professional competence of teachers in multi-grade classes.

Table 1 Validation of the components of the professional competency model for multi-level classroom teachers

Row	Components of the Teacher Competency Model	Items	CVR	CVI
1	Qualification Moral	Ethics is one of the required qualifications for teachers of multi-grade classes	1	1
2	Communication competence	Fan It is a statement of the qualifications required of teachers of multi-grade classes	1	1
3		Communicating with the community surrounding the school is one of the competencies required by teachers of multi-grade classes	0/9	0/9
4		Communicating with parents is one of the required competencies for multi-grade classroom teachers	0/9	0/9
5		Establishing proper communication with students is one of the required competencies for multi-grade classroom teachers	1	1
6		Communicating with colleagues is one of the competencies required for teachers of multi-grade classes	0/8	0/8
7	Subject-specific educational qualification	Mastery On Education Collaboration is one of the competencies required for teachers of multi-grade classes	0/8	0/9
8		Skill Research is one of the qualifications required for teachers of multi-grade classes	0/6	0/8
9		Ability to organize Content Special Multi-grade: This is one of the qualifications required for teachers of multi-grade classes	0/7	0/8

۱۷		Knowledge Program Multi-grade classroom management is one of the qualifications required for multi-grade classroom teachers	.۱۸	.۱۹۵
۱۸		Knowledge Evaluation In Class Multi-grade: This is one of the qualifications required for teachers of multi-grade classes	۱	۱
۱۹	Subject matter expertise	Knowledge Technology is one of the competencies required for teachers in multi-grade classrooms	.۱۸	.۱۹۵
۲۰		Knowledge Teaching in the classroom ?How many Basic is one of the qualifications required for teachers of multi-grade classes	۱	۱
۲۱		Mastering modern teaching methods in multi-grade classrooms is one of the qualifications required for multi-grade classroom teachers	۱	۱
۲۲		Mastery of Educational content is one of the qualifications required of teachers in multi-grade classes	۱	۱
۲۳		Organizing Class Lessons are one of the qualifications required for teachers of multi-grade classes	۱	۱
۲۴		Management Process Teaching and Learning is one of the competencies required by teachers of multi-grade classes	۱	۱
۲۵		Management Class Multi-grade lessons are one of the qualifications required for teachers of multi-grade classes	۱	۱
۲۶		Understanding the features and differences Knowledge Students are one of the qualifications	.۱۸	.۱۹۵

		required for multi-grade classroom teachers		
۲۰		Mastery On Rules A job is one of the qualifications required for multi-grade classroom teachers	۷/۰	.۱۸۵
۲۱	Educational qualification	Qualification Psychological It is one of the qualifications required for multi-grade classroom teachers	.۱۸	.۱۹۵
۲۲		Knowledge Education and Education is one of the qualifications required for teachers of multi-grade classes	۱	۱
۲۳		Skill Education is one of the qualifications required for teachers of multi-grade classes	۱	۱
۲۴	Competence in your professional development	Being a lifelong learner is one of the qualifications required of multi-grade teachers	.۱۸	۰/۹
۲۵		is one of Developing career skills the competencies required for multi-grade classroom teachers	.۱۸	۰/۹
۲۶	Behavioral competence	Career and organizational commitment are among the qualifications required of multi-grade classroom teachers	۱	۱
۲۷		Belonging Organization is one of the competencies required for multi-grade classroom teachers	۰/۶	.۱۸
۲۸		Behavioral health is one of the competencies required for multi-grade classroom teachers	۱	۱
۲۹	Bio-competence Physical	Mental and physical health are among the qualifications required for multi-grade classroom teachers	۱	۱

۳۰		Environmental protection is one of the qualifications required for multi-grade teachers	۷/۰	.۱۸
۳۱	Qualification Political	Political literacy is one of the qualifications required for teachers of multi-grade classes	۰/۶	.۱۸
۳۲	Qualification Personality	Being creative is one of the qualifications required for multi-grade classroom teachers	۷/۰	.۱۸
۳۳		Flexibility is one of the qualifications required for teachers of multi-grade classes	۰/۶	.۱۸
۳۴		Appropriate appearance is one of the qualifications required for teachers of multi-grade classes	۱	۱
۳۵		Humility and gentleness are among the qualifications required of teachers in multi-grade classes	۱	۱
۳۶		Tolerance is one of the qualifications required for teachers of multi-grade classes	۱	۱
۳۷		Self-awareness is one of the competencies required for teachers of multi-grade classes	۰/۶	.۱۸۵
۳۸		A positive attitude and optimism are among the qualifications required of multi-grade classroom teachers	۷/۰	.۱۸۵
۳۹	Emotional competence	Having emotional stability is one of the qualifications required for teachers of multi-grade classes	.۱۸	.۱۹۵
۴۰	Qualification Devotional- Doctrinal	Belief competence is one of the qualifications required for teachers of multi-grade classes	۱	۱

۴۱		Religious competence is one of the qualifications required for teachers of multi-grade classes	.۱۸	.۰/۹
۴۲	General jurisdiction	Possession of knowledge and information General is one of the qualifications required for teachers of multi-grade classes	۷/۰	.۱۸۵
۴۳	Cultural and social competence	Having a multicultural perspective is one of the qualifications required for teachers of multi-grade classes	.۱۸	.۰/۹
۴۴		Social competence is one of the competencies required by teachers of multi-grade classes	.۰/۹	.۱۹۵
۴۵		Cultural competence is one of the competencies required for teachers of multi-grade classes	۷/۰	.۰/۹
۴۶		Attention To Affairs School culture is one of the qualifications required for teachers of multi-grade classes	.۰/۹	.۱۹۵
۴۷		Being literate Economics is one of the qualifications required for teachers of multi-grade classes	.۰/۶	.۱۸
۴۸	Educational management and leadership competence	Management ability Time is one of the qualifications required by teachers of multi-grade classes	۱	۱
۴۹		Participation and management of participation are among the competencies required of teachers in multi-grade classes	.۰/۶	.۱۸
۵۰		Skill Management and leadership are among the qualifications required of multi-grade classroom teachers	.۱۸	.۰/۹



### *Discussion and conclusion*

Given the role of multi-grade schools in the growth and development of sparsely populated areas, the knowledge, ability, competence, and skills of multi-grade school teachers are always of great importance. Teaching in a multi-grade classroom, in a remote environment, with minimal facilities, and with minimal financial feedback, is a combination of interest, art, and expertise. A multi-grade teacher simultaneously assumes the responsibility of a teacher, supervisor, manager, health educator, developmental educator, counselor, and even a servant.

This model has been designed in accordance with the current needs of multi-grade teachers, prominent local and global standards. Overall, the findings related to qualifications showed that among the qualifications of a teacher is the mastery of the necessary and sufficient specialized knowledge to lead and establish change in the field of education. A teacher can lead and establish change well if he himself has good specialized knowledge. In fact, specialized knowledge in the field, that is, a teacher must, in addition to mastering subject knowledge, master content education knowledge (awareness of the learner's situation and knowledge related to teaching methods).

In addition, the teacher must also master the educational components, in other words, he must know the learning theories, learning spaces and situations well in order to be able to create learning opportunities. A teacher who, in accordance with the conditions of the class and students, embodies education and educational effects in combination with teaching and learning of lessons in students. Therefore, according to what was mentioned, a correct understanding of subject concepts, research tools, awareness of the structure of the specialized field and its use in creating learning opportunities aimed at the up-to-date transfer of concepts in accordance with the cognitive level of the learner are considered to be the qualifications of the teacher. Also, the teacher's ability to use diverse, attractive and efficient methods of testing and assessing the learner corresponding to ensuring learning and academic progress and providing appropriate and targeted feedback to the learner, parents and school, understanding the learner and educational knowledge and learning psychology, a correct understanding of the curriculum and learning design and creating an appropriate learning environment and using technology are key issues in this area that have not been neglected in this model.

In addition to the above, an effective teacher must have local culture and knowledge so that, taking into account different ethnicities and cultures, he can understand the cultural characteristics of children and pay due attention to all students. He can also be a suitable role model to introduce students to the different cultures of the country and teach them respect for each other. According to the research findings, general and individual emotional attitude and personality abilities are qualifications that every teacher must have. Children of a society have the right to enjoy appropriate and competent

education. Therefore, the teacher who provides this training must be an individual who is morally competent, has a morally sound character, and is shaped by ethical dimensions, values, and principles.

If a teacher does not have these qualifications, he cannot establish an appropriate relationship with students. Therefore, these qualifications such as commitment to religious, moral and revolutionary values in the field of educating students, providing opportunities for students to achieve a healthy life, participation, cooperation, interaction and establishing effective relationships with colleagues and employees, and having a multicultural perspective are of great importance and have been included in this model. Also, having economic, political and environmental literacy are other components of the model that strengthen the teacher's ability to educate students in multiple areas.

Since the findings of this study in the field of identifying professional qualifications of teachers in multi-grade elementary school classes have been validated and are comprehensive, it is recommended that higher education institutions, including universities of education and teacher training, use the qualifications and model presented in this study in the education and training of student teachers, and that student teacher recruitment be based on the specified indicators.

Teachers and student teachers are encouraged to study the aforementioned competency model and use it in their teaching and learning activities to increase their effectiveness.

It is recommended that the proposed model be used for assessment and evaluation in order to accurately and systematically assess teachers' performance based on their professional competence and level of competency.

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