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## THE COGNITIVE CONSTRUCTS OF NATIVE LANGUAGE EDUCATORS ABOUT IDEAL EXAM PRACTICES

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### ABSTRACT

It is necessary to determine the cognition of individuals to understand and interpret their behavior. It is claimed that a certain number of structures can be reached by evaluating the events that emerged as a result of people's experiences with the repertory grid technique. These structures can be good or positive, as well as bad or negative, in a bipolar way. While the phenomena (humans, views, objects, events) are called "matter", the concepts associated with the events are called "constructs". Constructs could be nouns or adjectives, or a concept that includes two or three terms. Cognitive constructs that are reflected in the repertory grid form are employed to understand the conceptual framework of the individuals about a certain field, subject or object, and the way they assess events and their decision-making processes associated with the subject. The present study aimed to investigate the cognitive constructs of native language educators about the ideal exam practices. Since the study had both qualitative and quantitative dimensions, it was conducted with the exploratory sequential design, a mixed research method. The study was conducted with 24 native language teachers at different educational levels (preschool, primary school, junior high school, high school) during the 2021-2022 academic year. In the study, the repertory grid technique was employed since the study aimed to determine the cognitive constructs of native language educators about the ideal exam practitioners. Cognitive constructs included in the forms completed by the native language educators were transferred to the computer environment and analyzed with thematic analysis. The study findings revealed eight main constructs including ethical principles, employment of various measurement and evaluation methods and techniques, employment of valid tools, reliable tools, competent development and application, communication and counseling skills, consideration of the measurement and evaluation as a feedback, and measurement planning, and a total of 240 cognitive constructs.

**Keywords:** Native language instruction, measurement and evaluation, exam practitioner, cognitive construct.

## INTRODUCTION

Education systems consist of complimentary elements. These constantly interacting elements include dimensions such as goal, content, educational status and measurement and evaluation. The most significant aim of the curricula that include the above-mentioned complex structure is to train students based on current requirements (Varış, 1998; Özdemir, 2009). To reach the educational goals, it is important to develop the cognitive skills of the students and to determine the factors that affect cognitive development. Developing knowledge/communication skills has an important place in today's education system and is only possible with an effective education (Tunagür, Kardaş & Kardaş; 2021). Individual has many unique characteristics, the most important of which is to think, comprehend and evaluate (Sarıkaya, 2018). Thus, the student level in targeted behavior and the achievement of the educational goals should be determined, which is possible through measurement and evaluation methods. The most important role of measurement and evaluation in education entails the control of the functionality of educational and instructional applications. The effectiveness and efficiency of education could be improved by the analysis of the measurement and evaluation data (Menteş, 2012). According to Linn (2009), measurement and evaluation plays a key role in grading, curriculum development, educational and vocational counseling, and the effectiveness of the school programs.

Measurement was defined as the presentation of an object or quality with numbers or other symbols based on observation results (Göçer, 2014; Turgut, 1977), while evaluation was described as the process of decision-making and judgment based on measurement (Özçelik, 2011; Gürbüz, 2016). As mentioned above, measurement and evaluation applications have several functions in educational activities. Karaca (2008: 2-3) listed the benefits of measurement in education as follows:

- Determination of the level of achievement
- To determine whether the employed methods and material were adequate for the goals
- To provide continuous feedback for the students about the process
- To develop solutions for the students with low achievement levels.

Evaluation, another element in the education process, is significant in the development of teacher opinion about the class and individual students, facilitation of the instructional activities, assistance of the teacher for the academic development of the students, reporting the student status to the parents, and determination of the instructional activities based on self-evaluation of the teacher based on the above-mentioned issues (Gümüş, 1976: 55-56). Thus, it could be suggested that the concepts of measurement and evaluation are two complementary elements in education.

The basic functions of measurement and evaluation would clearly demonstrate their significance in all educational stages and elements (teacher, student, parents). Thus, similar to all disciplines, measurement and evaluation play a key role in native language education.

There are certain issues pertaining to the concept of measurement and evaluation. Validity and reliability are among these issues. The views of the educators about the students are mostly directly affected by the exam grades. Thus, the responsible party for both the validity and reliability of measurement and evaluation, namely the "exam practitioner" is extremely important. Ensuring the reliability and validity of the exams entails adoption of the measures that would increase the reliability and validity of the exams.

The concept of assessment and evaluation was introduced by the American Federation of Teachers National Council of Measurement and Evaluation [AFT-NCME] (1990) to facilitate educational decisions about the students and was described as the process of collection and interpretation of data to provide feedback, help the students to discover their strengths and weaknesses, evaluate academic achievements, and develop a policy to inform the students. The process entails certain standards that educators (exam practitioners) should follow for effective and efficient measurement and evaluation. The exam practitioner (teacher) knowledge and skills were as follows (AFT-NCME, 1995):

- ✓ Teachers should be competent in the selection of the adequate measurement and evaluation method to make educational decisions.
- ✓ Teachers should be competent in developing adequate measurement and evaluation methods.
- ✓ Teachers should be competent in grading, interpretation, analysis, and counseling.
- ✓ Teachers should be competent in measurement and evaluation tools, program, and school development in decision-making.
- ✓ Teachers should be competent in developing valid measurement and evaluation methods.
- ✓ Teachers should be competent in communication skills when presenting the results to the students, school administration, and the parents.
- ✓ Teachers should be competent in reorganization of possible illegal, unethical, or inadequate measurement and evaluation methods.

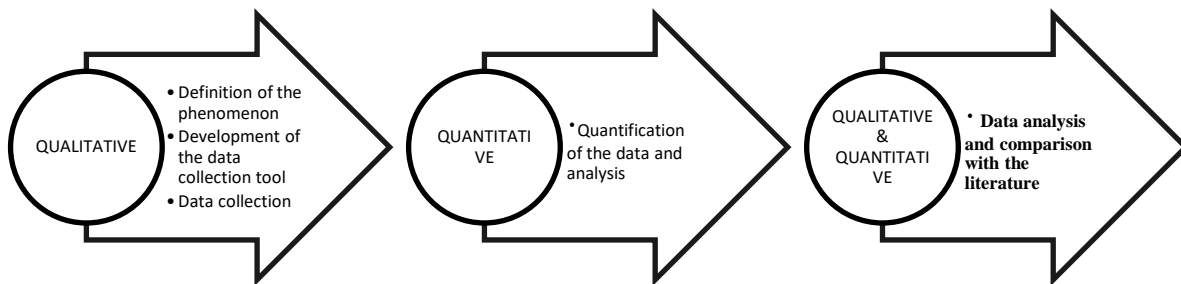
Thus, the measurement and evaluation is a sensitive and organized process that should be planned and requires the practitioners to meet certain criteria. It is important for practitioners to have these competencies to develop and sustain effective and efficient measurement and evaluation approaches. The present study aimed to determine the cognitive constructs of native language teachers about the ideal exam practitioner; and thus, a repertory grid was applied to native language educators (pre-school to high school). The following research problem was determined:

- What are the cognitive constructs of native language educators about the ideal exam practitioner?

**METHOD**

**The Research Design**

Since the study had both qualitative and quantitative dimensions, it was conducted with the exploratory sequential design, a mixed research method. Mixed method research employs both qualitative and quantitative methods in data collection and analysis for a better and in-depth understanding of the research problem (Creswell & Plano Clark, 2014; Hesse-Biber, 2010). There are several mixed research methods such as explanatory sequential, exploratory sequential, sequential transformative, simultaneous triangulation, simultaneous nested, and simultaneous transformative designs (Creswell, 2003). The exploratory design is considered an important research method for the quantitative reporting of the similarities and correlations between the qualitative phenomena expressed by the participants (McMillan & Schumacher, 2006). The exploratory sequential design was employed in the study since these features of the exploratory design were consistent with the study.



**Figure 1.** The Research Procedure

As seen in Figure 1, the first three steps represented the qualitative dimension of the study, while the fourth step represented the quantitative dimension. In the last step, all collected qualitative and quantitative data were analyzed and compared with the literature.

**The Study Group**

The study was conducted with 24 native language teachers employed in preschools, primary schools, junior high schools, and high schools in the 2021-2022 academic year. The study group was assigned with the criterion sampling method, a purposive sampling method, based on the principle of maximum diversity. The study criterion was employment as a native language teacher. For maximum diversity, the sample included native language teacher employed at different educational levels. Participant demographics are presented in Table 1.

**Table 1.** Participant Demographics

Educational Level	Female	Male	Total
Preschool	3	3	6
Primary school	3	3	6
Junior high school	3	3	6
High School	3	3	6
Total	12	12	24

As seen in Table 1, six participants from each main education level, where native language is instructed, were included in the study to represent all levels where native language is instructed.

### ***Data Collection Instrument***

It is necessary to determine the cognition of individuals to understand and interpret their behavior. Repertory grid, which is a data analysis technique derived from Kelly's (1955) Personal Construct Theory, is among the most popular indirect data collection techniques employed to understand the views of individuals on any topic, event, or object (Yaman, 2008). Kelly (1955) claimed that a certain number of constructs could be determined with the analysis of the events that are observed as a result of individual experiences with the repertory grid technique. These constructs could be bipolar, in other words good or positive, or bad or negative. While the phenomena (humans, views, objects, events) are called "matter", the concepts associated with the events are called "constructs". Constructs could be nouns or adjectives, or a concept that includes two or three terms. Cognitive constructs that are reflected in the repertory grid form are employed to understand the conceptual framework of the individuals about a certain field, subject or object, and the way they assess events and their decision-making processes associated with the subject.

Since the study aimed to determine the cognitive constructs of the native language educators about the ideal exam practitioner, the repertory grid technique was employed. Cognitive constructs of native language educators about the ideal exam practitioner were determined with the grading charts developed with the repertory grid technique and the correlations between the determined constructs were identified. Interview and writing methods were used to collect the data for the development of cognitive construct repertory charts. The triple repertory grid form was presented to each interviewee and completed by all participants. The interviews prioritized the determination of the native language educators' experiences to better understand the process.

### ***Procedure and Data Analysis***

The study included the definition of the phenomenon, the development of the data collection tool, data collection and analysis stages (Sevim, Akan, & Yıldırım, 2020; Sezer, 2016; Yıldırım & Şimşek, 2013).

Definition of the phenomenon: In this step, a conceptual framework was developed to analyze the ideal exam practitioner qualifications that were determined with the repertory grid technique. Thus, a literature review was conducted to determine the study topic with a focus on measurement and evaluation and the exam practitioner.

Development of the data collection tool: A triple repertory grid was developed to allow the native language educators to state cognitive constructs about the ideal examiner (Bell, 2005; Jankowicz, 2005; Sezer, 2016). The triple repertory grid is presented in Table 2.

**Table 2.** The Triple Repertory Grid

Exam Practitioner							
Ideal				Unideal			
Ideal Qualifications	Ahmet	Banu	Kutlu	Yusuf	Zekâi	Betül	Unideal qualifications
	◊		◊		◊		
	◊				◊	◊	

- Imagine that two out of the three exam practitioners in the ideal and unideal groups exhibit the same qualification but the third exhibit a different qualification.
- You can use nouns, adjectives, or two-three-word expressions for exam practitioner qualifications.
- The figure, which indicates that the qualifications of the two exam practitioners are similar, is the similarity pole (ideal).
- The figure, which indicates that the qualifications of the two exam practitioners are different from the third, is the opposition pole (unideal).

Data collection: The study aimed to determine the views of native language educators on the ideal exam practitioner with the repertory grid technique. The following procedure was adopted to collect the study data (Palmisano, 2007; Sanders, 1982):

- The author communicated with native language educators, who were employed in different educational levels and included in the study group.
- First, native language educators were informed about the triple repertory grid form, and a pilot scheme was conducted by the authors on a different topic.
  1. They were asked to imagine three educators who exhibit and do not exhibit ideal exam practitioner qualifications.
  2. Then, they were asked to write these names in the spaces in the triple repertoire grid form, using aliases.
  3. The native language educators were asked to write the ideal qualifications exhibited by the exam practitioners in the spaces specified in the form to determine their associated cognitive constructs.
  4. Native language educators were asked to reorder the cognitive constructs of other educators about ideal exam practices, in the order of significance in the section specified in the form.
  5. The two-dimensional cognitive constructs specified by the native language educators were scored between 1 and 6 to determine the ideal and non-ideal exam practitioners previously identified by each participant.
- Every day, 20-30 minutes long interviews were conducted with four native language educators, and the interviews were completed in 6 days.

A section of the repertory grid form completed by a native language teacher is presented in Table 3.

**Table 3.** A Repertory Grid Form Completed by A Native Language Teacher

Exam Practitioner							
Ideal				Unideal			
Ideal Qualifications	Ahmet	Banu	Kutlu	Yusuf	Zekâi	Betül	Unideal Qualifications
<b>Sincere</b>	6 ◊	5	6 ◊	1	2 ◊	1	Insincere
<b>Sensible</b>	5 ◊	6	6	2	1 ◊	1 ◊	Insensible
<b>Compassionate</b>	6	6	5 ◊	1	1	2 ◊	Uncompassionate

### ***Quantification and Analysis of the Study Data***

Cognitive constructs in the forms completed by the native language educators were quantified in the computer environment and analyzed with thematic analysis. In thematic analysis, the data was coded to determine the themes and patterns in the data. The thematic analysis was conducted in four stages. In the first stage, 240 cognitive constructs specified by the native language teachers were coded. In the second stage, coded cognitive constructs were analyzed and similar constructs were combined to determine the main constructs. The main constructs were determined based on the literature review. In the third stage, the cognitive constructs associated with the ideal exam practitioner were categorized to include all constructs and to ensure the representation of the ideal exam practitioner qualifications in the themes (Gibbs, 2007). In the fourth stage, the scores assigned by the native language teachers were determined, and the cognitive construct with the highest score was multiplied by 10 and the last cognitive construct was multiplied by 1 to obtain the relative significance scores.

The data analysis findings were interpreted in seven stages (Karadağ, 2011; Sevim, Akan, & Yıldırım, 2020; Sezer, 2016). The collected data were categorized in cognitive construct groups and frequencies were determined in the first stage. In the second stage, the repetitions were determined. In the third stage, similar cognitive construct groups were combined. In the fourth stage, the variables were classified based on the aim of the study. In the fifth stage, the correlations between the variables were determined. In the sixth stage, links were established between the variables. The findings were associated with the theoretical construct of the study and the findings were discussed in the seventh stage. Due to the nature of the phenomenon, similarities, identical constructs and contextual similarities may be observed in the cognitive constructs (Karadağ, Sultan Kılıç, Arslantaş, Esen, et al., 2018). Ethical permission of the study was obtained from Ağrı İbrahim Çeçen University Ethics Committee numbered 38.

### ***The Study Consistency, Confirmability, Credibility and Transferability***

Both the correlations between the cognitive constructs developed by the native language educators and the correlations between these and previously developed theoretical structure were analyzed to ensure consistency, and it was determined that the data reflected a meaningful and consistent whole. After the participants completed the forms, interviews were conducted with the participants about the constructs specified in the form to ensure that the views reflected on the form were consistent with their views and to clarify ambiguous constructs. After all study findings were determined, they were submitted for the review of three randomly selected native language teachers in the study group, and they stated that the cognitive constructs reflected the truth (Miles & Huberman, 1994; Yıldırım & Şimşek, 2013).

Cognitive constructs developed by the participants were analyzed as is and without any comments to ensure the credibility of the study. After the cognitive constructs were correlated and classified, the classification was

confirmed by two faculty members, one of which was an educational sciences specialist, and the other was a Turkish language education specialist (Miles & Huberman, 1994).

Scientific methods, sampling techniques, data collection tools and data analysis methods were adopted and detailed in the study to ensure the confirmability. The form was designed to cover all main issues. The conceptual framework was developed comprehensively to facilitate the discussion of the findings (LeCompte & Goetz, 1982).

The roles of the authors in the data collection and analysis were stated clearly to ensure transferability. The demographics of the participants in the study group were described and the reasons for their assignment were explained. Furthermore, detailed information was provided about the interviews, the data collection instrument, and the correlation and presentation of the study data (LeCompte & Goetz, 1982).

**FINDINGS**

The repertory grid data were analyzed, and it was determined that 240 cognitive constructs were developed by the teachers about the qualifications of the ideal exam practitioner. The frequencies of the cognitive constructs revealed that the most frequently mentioned cognitive constructs were (1) objective [ $\eta=8$ , 3.3 %], (2) disciplined [ $\eta=7$ , 2.9%], (3) explanatory [ $\eta= 5$ , 2.1%], (4) paying attention to objections [ $\eta=5$ , 2.1%], (5) neutral [ $\eta=5$ , 2.1%], (6) providing feedback [ $\eta=4$ , 1.7%], (7) planned [ $\eta=4$ , 1.7%], (8) paying attention to content validity [ $\eta=3$ , 1.3%], (9) does not allow cheating [ $\eta=3$ , % 1,3], (10) straightforward [ $\eta=3$ , 1,3], (11) careful [ $\eta=3$ , 1,3], (12) cautious [ $\eta=3$ , 1,3%], (13) providing feedback [ $\eta=3$ , 1,3%]. The classification revealed 8 main construct groups that included 240 cognitive constructs. These groups are presented in Table 4.

**Table 4.** Cognitive Constructs and Groups

<b>Ethical principles (f: 6)</b>								
<b>Caring about the job</b>	[22/10]	310	Principled	[6/9]	225	Ethical	[7/6]	138
<b>Professional</b>	[19/10]	250	With ethical principles	[3/9]	189	Does not consider the exam as a punishment	[1/5]	85
<b>Employment of different measurement and evaluation techniques (f: 12)</b>								
<b>Interprets information</b>	[15/7]	189	Employs diverse question types	[23/7]	168	Employs different types of questions (multiple choice, open ended)	[12/3]	66
<b>Employs scales</b>	[20/8]	184	Technological measurement and evaluation	[24/6]	132	Open to improvement	[6/2]	42
<b>Exam questions and knowledge level are inconsistent</b>	[14/8]	176	Different types of exams	[15/6]	102	Good selection of the measurement tool	[9/2]	40
<b>Includes questions for all levels</b>	[13/8]	168	Employs modern measurement and evaluation techniques	[17/4]	72	Develops different types of questions	[2/1]	23
<b>Employment of valid tools (f: 22)</b>								



<b>Content validity</b>	[10/10]	230	Face validity of the exam	[10/7]	175	Develops adequate questions for behavior	[2/4]	76
<b>Content validity</b>	[12/9]	225	Analysis of validity	[20/7]	154	Questions measure behavior	[2/3]	60
<b>Content validity</b>	[20/10]	220	Questions consistent with the instructed topics	[23/6]	150	Determined the number of questions	[5/2]	40
<b>Consistent with the course content</b>	[18/9]	216	Detailer	[5/7]	147	Establishes good boundaries	[19/2]	40
<b>Questions on the topics that the students were responsible from</b>	[11/10]	210	Measures all language skills	[14/6]	132	Visionary	[22/2]	38
<b>Well-defined question content</b>	[2/10]	200	Adequate number of questions for the allotted exam time	[8/5]	115	Emphasizes the details	[16/1]	24
<b>Content validity</b>	[1/8]	192	Predictable	[5/5]	95			
<b>Inclusive</b>	[15/9]	180	Measures only the instructed topics	[1/4]	84			
<b>Employment of reliable tools (f: 78)</b>								
<b>Clear questions</b>	[8/9]	261	Explanatory	[16/7]	168	Punctual	[17/6]	114
<b>Adoption of scientific principles</b>	[3/10]	250	Consistent	[6/8]	168	Adopts measures against cheating	[16/4]	108
<b>Fair to all</b>	[19/9]	243	Adopts measures against random achievements	[10/9]	162	Objective	[2/6]	108
<b>Exam safety</b>	[12/10]	240	Adequate consumption of time	[11/7]	161	Does not allow cheating	[4/5]	105
<b>Neutral</b>	[4/10]	240	Just	[6/7]	161	Explanatory	[11/5]	105
<b>Objective</b>	[23/10]	230	Discriminative questions	[15/8]	160	Prefers questions that would reveal multiple skills	[23/5]	100
<b>Reliability</b>	[7/10]	220	Objective	[11/8]	160	Transparent	[7/4]	96
<b>Objective</b>	[13/10]	220	Implements measurement criteria	[21/9]	153	Changes exam questions every year	[10/5]	95
<b>Objective evaluation</b>	[12/8]	216	Times the exam well	[12/6]	150	Explains measurement and evaluation criteria in advance	[23/4]	92
<b>Objective</b>	[22/8]	216	Objective grading	[10/6]	150	Cautious	[4/4]	84
<b>Impartial</b>	[15/10]	210	Good time management	[9/7]	147	Impartial evaluation	[24/4]	84
<b>Unbiased</b>	[21/10]	210	Consistent	[13/7]	147	Decisive	[16/3]	81

<b>Just</b>	[17/10]	210	Does not allow cheating	[11/6]	144	Unprejudiced	[6/4]	80
<b>Predetermined evaluation criteria</b>	[17/9]	207	Explanatory	[4/6]	144	Does not allow cheating	[8/4]	76
<b>Fair</b>	[23/9]	198	Highly reliable exams	[1/7]	140	Comprehensible	[9/3]	66
<b>Allows adequate time</b>	[2/9]	198	Does not allow cheating	[14/10]	140	Does not allow cheating	[13/4]	64
<b>Honesty</b>	[7/9]	198	Accurate measurement	[18/7]	140	Meticulously reads the papers	[15/3]	60
<b>Neutral</b>	[5/9]	198	Objective	[3/7]	140	Allotted time depends on the type of exam	[15/2]	50
<b>Quality tool</b>	[4/8]	192	Objective	[6/6]	138	Objective	[8/2]	46
<b>Reliable</b>	[13/9]	189	Explanatory	[15/5]	135	No surprises	[4/2]	42
<b>Neutral</b>	[9/9]	189	Reliability analysis	[20/6]	132	Objective grading	[2/2]	42
<b>Objective</b>	[14/9]	189	Explanatory	[22/4]	132	Accurate exam time	[18/2]	38
<b>Comprehensible</b>	[5/8]	184	Careful	[13/6]	126	Cannot stand cheating	[24/1]	22
<b>Measures against cheating</b>	[10/8]	184	Reliable	[19/6]	126	Includes students in measurement and evaluation sometimes	[17/1]	13
<b>Objective</b>	[18/8]	184	Adequate number of questioned for the allotted time	[16/5]	125			
<b>Evaluates based on the answer key</b>	[11/9]	180	Attentive	[18/6]	120			
<b>Wary</b>	[24/7]	168	Against cheating	[3/5]	115			
<b>Development and implementation competency (f: 38)</b>								
<b>Includes directions</b>	[1/10]	310	Prepares for the exam	[8/6]	132	Checks class conditions	[11/3]	72
<b>Cautious</b>	[22/9]	261	Pedant	[9/6]	126	Transparent exams and evaluation	[23/3]	72
<b>Arrives on time for the exam</b>	[8/10]	220	Pedant	[21/6]	126	Equal number of easy, normal and difficult questions	[1/3]	69
<b>Preparation</b>	[20/9]	180	Pays attention to grammar and syntax	[12/4]	116	Establishes rules	[5/3]	66
<b>Purposive</b>	[9/8]	176	Well-established rules	[18/5]	115	Cautious	[18/3]	63
<b>Clear (comprehensive) exam directions</b>	[14/7]	175	Analysis of the application	[20/5]	115	Tolerant for criticism	[14/3]	57
<b>Well-established rules</b>	[8/7]	168	Ideal number of easy, normal and difficult questions	[2/5]	110	Practical	[7/2]	48

<b>Equipped for measurement and evaluation</b>	[17/8]	168	Observer	[19/5]	110	Ready for extraordinary situations	[16/2]	46
<b>Clear questions</b>	[2/7]	161	Expert	[5/4]	100	Dominates the class during exams	[23/1]	32
<b>Prioritizes the exams</b>	[21/8]	160	Knowledgeable	[9/4]	96	Purposive	[5/1]	22
<b>Informs the class about the exam content</b>	[12/7]	154	Cautious	[11/4]	96	Attentive	[7/1]	22
<b>Good observer</b>	[22/6]	150	Knows about the sample	[9/5]	95	Observer	[9/1]	21
<b>Includes explanations</b>	[12/5]	145	In contact with the students during the exam (does not allow others to supervise the exam)	[14/4]	84			
<b>Communication and counseling skills (f: 21)</b>								
<b>Respectful</b>	[7/8]	208	Coaching	[7/5]	105	Sensible	[8/1]	23
<b>Merry</b>	[16/10]	200	Productive	[6/5]	100	Calm	[19/1]	23
<b>Recognizes supervisors and students</b>	[16/9]	198	Problem-solver	[19/4]	92	Pays attention to criticism	[21/1]	20
<b>Motivator</b>	[24/8]	168	Tolerant	[7/3]	72	Cares for the students	[3/1]	18
<b>Positive</b>	[19/7]	161	Devoted	[3/4]	68	Open to criticism	[12/2]	16
<b>Communicative</b>	[17/7]	154	Psychologically relaxes the students before the exam	[21/3]	60			
<b>Good listener</b>	[22/5]	120	Values the students	[3/2]	38			
<b>High tolerance</b>	[24/5]	105	Motivates failed students	[1/1]	26			
<b>Considering measurement and evaluation as a feedback system (f: 45)</b>								
<b>Focuses on instruction</b>	[18/10]	210	Pays attention to objections	[18/4]	76	Values objections	[24/2]	40
<b>Responds to student questions</b>	[8/8]	184	Takes objections into account	[4/3]	72	Grades the exams on time	[21/2]	38
<b>Accountability</b>	[7/7]	168	Develops answer keys	[10/4]	72	Grades the exams on time	[11/2]	34
<b>Timely feedback</b>	[19/8]	168	Provides feedback	[24/3]	66	Investigates objections	[20/1]	30
<b>Employs the exams as an instructive element</b>	[23/8]	168	Grades the exams as soon as possible	[8/3]	63	Provides feedback	[15/1]	23
<b>Grades the exams and announces the grades on time</b>	[2/8]	160	Prioritizes feedback	[6/3]	60	Instructs with the exam	[4/1]	21
<b>Evaluates on time</b>	[4/7]	147	Provides feedback on student weaknesses	[10/3]	60	Announces the grades on time	[13/1]	21

Grades the exams on time	[22/7]	133	Pays attention to objections	[3/3]	57	Publishes answer key or provides the answers in the next class	[14/1]	21
Provides feedback	[16/6]	108	Provides feedback	[13/3]	57	Open to criticism	[6/1]	19
Provides feedback	[21/5]	105	Grades the exams on time	[10/2]	56	Provides the answers after the exam	[10/1]	19
Provides feedback	[1/6]	102	Allows the students to go through their exams	[14/2]	52	Grades the exams as soon as possible	[18/1]	19
Analyzes the results	[13/5]	100	Evaluates on time	[1/2]	50	Pays attention to objections	[11/1]	18
Pays attention to objections	[21/4]	92	Provides feedback	[23/2]	46	Provides the answers after the exam	[12/1]	12
Provides feedback	[20/4]	84	Analyzes the objections	[13/2]	40			
Publishes the grades on time	[20/3]	78	Pays attention to objections	[17/2]	40			
Pays attention to objections	[22/3]	78	Provides feedback	[20/2]	40			
<b>Planned measurements (f: 18)</b>								
Disciplined	[24/10]	230	Disciplined	[16/8]	200	Meticulous	[17/5]	110
Planned	[6/10]	220	Obeys the directives	[24/9]	198	Obeys the rules	[3/6]	108
Planned	[9/10]	220	Analyzes the process	[1/9]	153	Process-oriented	[15/4]	84
Planned	[4/9]	216	Disciplined	[5/6]	150	Limited by the role	[19/3]	60
Planned	[5/10]	210	Disciplined	[21/7]	140	Mostly analyzes the process	[17/3]	45
Disciplined	[3/8]	208	Disciplined	[14/5]	110	Disciplined	[22/1]	29

As seen in Table 4, there were 8 main construct groups. The 3 dominant cognitive constructs in each group based on the the frequencies of the cognitive constructs were as follows:

**Ethical principles:** A total of 6 cognitive constructs were included in this group. Based on relative significance, the first three cognitive constructs were (1) caring about the job [22/10] 310, (2) professionalism [19/10] 250, and (3) principled [6/9] 225, respectively.

**Employment of different measurement and evaluation techniques:** A total of 12 cognitive constructs were included in this group. Based on relative significance, the first three cognitive constructs were (1) information interpreter [15/7] 189, (2) employment of scales [20/8] 184, (3) consistent exam questions with knowledge level [14/8] 176, respectively.

**Employment of valid tools:** A total of 22 cognitive constructs were included in this group. Based on relative significance, the first three cognitive constructs were (1) content validity [10/10] 230, (2) paying attention to content validity [12/9] 225, and (3) content validity [20/10] 220, respectively.

**Employment of reliable tools:** A total of 78 cognitive constructs were included in this group. Based on relative significance, the first three cognitive constructs were (1) clear questions [8/9] 261, (2) adoption of scientific principles [3/10] 250, and (3) equal treatment [19/9] 243, respectively.

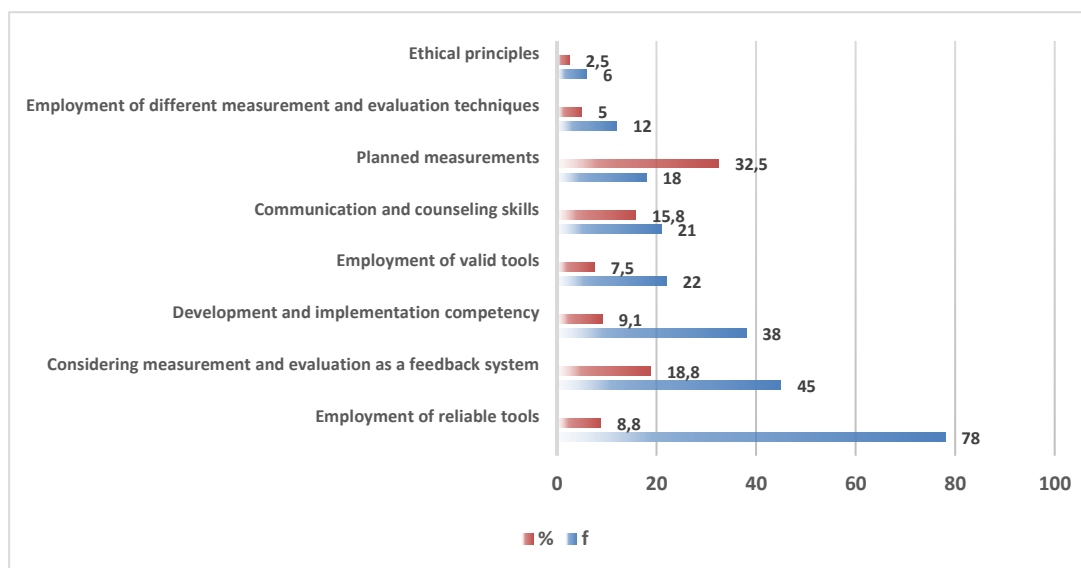
**Development and implementation competency:** A total of 38 cognitive constructs were included in this group. Based on relative significance, the first three cognitive constructs were (1) employs directions [1/10] 310, (2) cautious [12/9] 261, (3) arrives for the exam on time [8/10] 220, respectively.

**Communication and counseling skills:** A total of 21 cognitive constructs were included in this group. Based on relative significance, the first three cognitive constructs were (1) respectful [7/8] 208, (2) friendly [16/10] 200, and (3) cares for the supervisors and students [16/9] 198, respectively.

**Considering measurement and evaluation as a feedback system:** A total of 45 cognitive constructs were included in this group. Based on relative significance, the first three cognitive constructs were (1) instructive [18/10] 210, (2) provides feedback to student questions [8/8] 184, and (3) accountability [7/7] 168, respectively.

**Planned measurements:** A total of 18 cognitive constructs are included in this group. Based on relative significance, the first three cognitive constructs were (1) disciplined [24/10] 230, (2) planned [6/10] 220, and (3) planned [9/10] 220, respectively.

Cognitive constructs of the teachers about the ideal exam practitioner qualifications were categorized in eight groups. Since certain cognitive constructs were mentioned more than once, these cognitive constructs were considered as a single construct. The frequencies and percentages of participants that mentioned each fiction group are presented in Figure 2.



**Figure 2.** Participant Frequencies and Percentages in Cognitive Construct Groups

As seen Figure 2, the construct groups were ranked as follows: employment of reliable tools [ $\eta=78$ , 32.5%], considering the measurement and evaluation as a feedback system [ $\eta=45$ , 18.8%], development and implementation competency [ $\eta=38$ ], 15.8%, employment of valid tools [ $\eta=22$ , 9.2%], communication and counseling skills [ $\eta=21$ , 8.8%], planned measurements [ $\eta=18$ , 7.5%], employment of different measurement and evaluation techniques [ $\eta=12$ , 5%], and ethical principles [ $\eta=6$ , 2.5%].

The relative significance ranking of the cognitive constructs were determined based on the cognitive construct ranking. The results of the multiplication of the total score of each cognitive construct by the ranking coefficient that decreased from 10 to 1 are presented in Table 5.

**Table 5.** Relative Significance of Cognitive Construct Groups

Teacher	Ethical principles	Employment of different measurement and evaluation techniques	Employment of valid tools	Employment of reliable tools	Development and implementation competency	Communication and counseling skills	Considering measurement and evaluation as a feedback system	Planned measurements
1	85	23	276	140	379	26	152	
2			336	340	271		160	
3	189			495		124	57	208
4				663			411	216
5			282	382	188			210
6	225	42		547		100	79	220
7	138			514	70	385	168	
8			115	383	520	23	247	
9		40		402	514			220
10			405	591			207	
11			210	846	72		52	
12		66	225	606	415	16	12	
13		168		746			318	
14			1	132	329	311	73	
15		76						
16		291	180	615			23	
17			24	482	46	398	108	200
18		72		544	168	154	40	
19			216	545	115		305	
20	250		40	369	110	276	168	
21		184	374	132	195		232	
22				363	286	80	235	
23	310		38	348	411	120	211	
24		168	150	422	104		214	198
25		132		274		273	336	428
<b>Total</b>	<b>1197</b>	<b>1362</b>	<b>3003</b>	<b>11078</b>	<b>4175</b>	<b>1975</b>	<b>3808</b>	<b>1900</b>
<b>Mean</b>	<b>199,5</b>	<b>123,8</b>	<b>200,2</b>	<b>461,5</b>	<b>245,5</b>	<b>164,5</b>	<b>173</b>	<b>237,5</b>

The data presented in Table 5 were analyzed with two approaches. First, the total relative significance score of each participant for the cognitive construct group was determined and presented on each line. Second, the total and mean participant relative significance scores were calculated for each cognitive construct group. The construct groups were ranked as follows: employment of reliable tools [ $\eta=18$ , 75%], development and

implementation competence [ $\eta=4$ , 16.6%], employment of valid tools [ $\eta=1$ , 4.1%], and planned measurements [ $\eta=1$ , 4.1%].

In Table 5, the total and mean cognitive construct scores of the native language teachers about the ideal exam practitioner are presented. These figures represent the relative significance of each cognitive construct group for the teachers. The ranking of the mean cognitive construct group scores was as follows: employment of reliable tools [ $\bar{x}= 461.5$ ], development and implementation competency [ $\bar{x}= 245.5$ ], planned measurements [ $\bar{x}= 237.5$ ], employment of valid tools [ $\bar{x}= 200.2$ ], ethical principles [ $\bar{x}= 199.5$ ], considering the measurement and evaluation as a feedback system [ $\bar{x}= 173$ ], communication and counseling skills [ $\bar{x}= 165.5$ ], and employment of different measurement and evaluation techniques [ $\bar{x}= 123.8$ ].

### **CONCLUSION and DISCUSSION**

In the present study that aimed to determine the cognitive constructs of native language teachers about the ideal exam practitioner, 240 cognitive constructs were determined. These cognitive constructs included ethical principles, employment of different measurement and evaluation techniques, employment of valid tools, employment of reliable tools, development and implementation competency, communication and counseling skills, considering measurement and evaluation as a feedback system, and planned measurements and were classified in eight main groups. Based on the frequencies of cognitive constructs, native language educators ranked the ideal exam practitioner qualifications as follows: employment of reliable tools, considering measurement and evaluation as a feedback system, development and implementation competency, employment of valid tools, communication and counseling skills, planned measurements, employment of different measurement and evaluation techniques, and having ethical principles.

Karadağ, Sultan Kılıç, Arslantaş et al. (2018) investigated the cognitive constructs produced by medical students about the ideal medical educator, and the study findings demonstrated that the highest ranked cognitive constructs in 5 main categories were classroom management skills, compassion, and measurement-evaluation skills. In the same study, it was observed that the main cognitive construct categories included pedagogical competence, individual maturity, communication skills, innovative spirit/stimulation and other qualifications based on frequency. In the present study, where the cognitive constructs about the ideal exam practitioner were determined, 8 main construct groups were determined, including caring about the job, ethical principles, open to improvement, vision, consistent, objective, fair, unprejudiced, careful, good observer, recognition of the sample, tolerant, merry, motivating, respectful, understanding, a good listener, paying attention to feedback, planned, and disciplined, and these cognitive constructs were consistent with those reported by Karadağ, Sultan Kılıç, Arslantaş et al. (2018).

The theme of the employment of reliable tools was mentioned by the highest number of participants and was the leading construct based on relative significance among cognitive construct groups. Cognitive constructs included in this theme described an exam practitioner who included clear questions in the exams, adopted scientific principles, and treated all equally. Özbaşı (2009) emphasized the significance of reliability and validity

in measurement and evaluation and underlined that adequate measurement and evaluation tools should be available for the teachers for reliable and valid determination of student achievements and performance. The theme of development and implementation competency included qualifications such as providing clear instructions about the exam, being cautious during the exams, and arriving on time for the exam. Karaca (2004) emphasized the significance of the development of valid and reliable measurement and evaluation tools which are adequate for the target behavior. Furthermore, the constructs in the theme of considering measurement and evaluation as a feedback system included instructiveness, providing feedback to student questions, and accountability constructs. Özçelik (1998) argued that the elimination of incorrect learning in the learning-instruction environment is within the scope of feedback and correction. The theme of communication skills included cognitive constructs such as respectfulness, merriness and caring for the students. Üstüner, Abdurrezzak, and Gülerbaşı (2021) reported in the study where they investigated ideal teacher attributes that teachers should have personal traits such as tolerance and merriness.

Employment of different measurement and evaluation techniques was another theme determined in the study. The theme included constructs such as asking questions that would interpret knowledge, employment of scales, and aiming at high-level skills rather than knowledge in the exams. The significance of the employment of alternative measurement and evaluation tools was emphasized by the Ministry of National Education, and the use of questions that do not have a single correct answer, include all alternative evaluation methods, and allow students to test different dimensions of their learning levels were promoted (Ministry of National Education [MEB], 2007). The theme of planned measurements included the constructs such as adoption of disciplined and planned measurements. Uygun and Saraç (2020) emphasized that teachers should not plan only learning and instruction activities in the class, but also the measurement and evaluation techniques. The category of ethical principles included constructs such as ethical principles, caring about the job, professionalism, and principled exam practitioners. In a study conducted by Sezer (2017), it was reported that academic ethical behavior was among the ideal qualifications of instructors.

## **RECOMMENDATIONS**

The following could be recommended based on the study findings:

- Future studies could be conducted on the academic and human traits that ideal exam practitioners should possess with different measurement tools or techniques to compare the study findings with other reports in the literature.
- The qualifications of the ideal exam practitioner based on the new education systems and technological expectations could be determined in future studies.

## **ETHICAL TEXT**

In current study; journal writing rules, publishing principles, research and publishing ethics rules and journal ethics rules are followed. The authors are responsible for all kinds of violations related to the study.



Ethical permission of the study was obtained from Ağrı İbrahim Çeçen University Ethics Committee numbered 38.

**Authors Contribution Rate:** The 1st author's contribution rate to the article is 60%. The second author's contribution rate to the article is 40%.

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