

Prospective Teachers' Cognitive Constructs Related to Ideal Lecturer Qualifications: A Case Study Based on Repertory Grid Technique *

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Abstract: In this study, it was aimed to reveal prospective teachers' cognitive constructs related to the ideal lecturers' qualifications. The study was conducted based on case study design which is one of the qualitative research patterns. The study group was 21 prospective teachers. The study group was determined by using criterion sampling method. Data were collected via a repertory grid technique. The participants have produced 210 valid cognitive constructs related to ideal lecturers' qualifications. The most frequently mentioned cognitive constructs are namely, communication skills, professional competence, acknowledged expert, motivation skills, good humoured, treats fairly, respectful to different opinions, innovative/inventive, academically/scientifically accoutred, and classroom management skills. 210 cognitive constructs were collected in eight different cognition, groups considering functionality and the similarities. The main cognition groups were personal qualifications, academic efficacy, professional competency, communication skills, student centeredness, motivation, professional ethics, and democratic attitude. It can be suggested that the lecturers before anything else should have personal qualifications, communication skills and they should also be academically efficient.

Keywords: Prospective teacher, ideal lecturer, qualification, repertory grid

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Öğretmen Adaylarının İdeal Akademisyen Niteliklerine İlişkin Bilişsel Kurguları: Repertory Grid Tekniğine Dayalı Bir Durum Çalışması

Özet: Bu araştırma, öğretmen adaylarının ideal akademisyen niteliklerine ilişkin bilişsel kurgularını ortaya koymayı amaçlamaktadır. Araştırma, nitel araştırma yöntemlerinden biri olan durum çalışması deseninde yürütülmüştür. Çalışma grubunu 21 öğretmen adayı oluşturmaktadır. Çalışma grubu, ölçüt örnekleme yöntemiyle belirlenmiştir. Veriler, repertory grid tekniği ile toplanmıştır. Öğretmen adayları ideal akademisyen niteliklerine ilişkin 210 geçerli bilişsel kurgu üretmiştir. En fazla yinelenen bilişsel kurgular sırasıyla iletişim becerileri, mesleki yeterlik, alanında uzmanlık, motivasyon becerisi, güler yüzlü olma, adil davranma, farklı görüşlere saygı, yenilikçi/yaratıcı, akademik/bilimsel donanım ve sınıf yönetimi becerisi şeklindedir. 210 bilişsel kurgu, işlevleri ve benzerlikleri göz önünde bulundurularak sekiz kurgu grubu altında toplanmıştır. Bu ana kurgu grupları: kişisel yeterlikler, akademik yeterlik, mesleki yeterlik, iletişim becerisi, öğrenci merkezlilik, motivasyon, mesleki etik ve demokratik tutum şeklindedir. Her şeyden önce öğretim elemanlarının kişisel niteliklere, iletişim becerilerine sahip olmaları ve akademik olarak verimli olmaları gerektiği söylenebilir.

Anahtar Sözcükler: Aday öğretmen, ideal akademisyen, nitelik, repertory grid.

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INTRODUCTION

The qualifications of ideal lecturers are under particularly close scrutiny owing to raise the teaching and learning quality, and the faculty effectiveness. Academically qualified lecturers have a critical role for learning experiences and to ensure requirements successfully of the job qualifications for all students which they need. Therefore, the defining attempts the knowledge, skills and abilities of lecturers will ensure them reviewing their performance and support them to continue professional improvement.

There are two basic indicators to determine the development level of the societies. One of these is per capita income and the other is qualified human power. The central activity of higher education is to maximize the student's educational development. Therefore, it should be focused on the qualifications of academic staff in higher education (Tam, 2010). The growth of human power can be practised with the presence of the qualified lecturers who are well equipped, visionary, high knowledge, self-renewing, and open to the change and innovation (Higher Education Council [YÖK], 2011). The qualification term is defined as the ability, competence, effectiveness or perfection. It is also identified as the knowledge, skills and competencies which agreed upon within a certain period (Tuck, 2007). Qualification is also defined as the job requirements such as the knowledge, aptitudes and skills required to perform the specific tasks attached to a particular work position (ILO, 1998). A qualification confers official recognition of the value of learning outcomes in the labour market and in education and training. A qualification can be a legal entitlement to practice a trade (OECD, 2007). On the other hand, the quality term is used to express entirety of knowledge, skills and abilities in business life. Moreover, the quality is also seen as the entirety of characteristics which are necessary to fulfil a business task, successfully (Karadağ, 2011).

The qualifications of ideal lecturers are defined as the characteristics can be measured according to a standard (Schonwetter, 1993). In this view, the preparation of prospective teachers in a college or a teacher education program, all too often lack adequate rigor, breadth and depth, resulting in high levels of underqualified lecturers and low student performance (Ingersoll, 2007). Therefore, the professional knowledge, skills, and dispositions of lecturers should be grounded in what their undergraduates will need to know and be able to do in order to contribute meaningfully to life in a democratic society (AAPT, 2009). The professional competencies of a lecturer can be characterized as the ability to give lectures influenced by the abilities, knowledge, experience and skills, but also the willingness and the capacity to use academic potential functionally in adult teaching and to bear responsibility of decisions in the education. There is however no single formula for giving effective lectures, and there is no single 'right way' to give lectures that ensure high quality learning experiences for students (Voss & Gruber, 2006). First of all, the lecturers should be full of the love and they like their professions and students. The fundamental of this love should base on respects to their

individual characteristics, professions and students (Gençtürk, Akbaş, & Kaymakçı, 2012). Besides, lecturers should be prepared to go through a process of student and peer evaluation and more importantly, they should set and develop standards for themselves and be determined to maintain these standards (Assan, 2014). Nowadays the higher education is seen as the business-like enterprise, where the students as a consumer seeks a business-like relationship with the lecturer that delivers knowledge, skills, attitudes and competencies they need (Newton, 2002).

Due to its critical importance in higher education institutions, the lecturers' teaching quality is seen an important issue for educators, policymakers, practitioners and researchers (Roth & Swail, 2000). Harvey (2001) and Green (2014) suggest that the quality in higher education is affected by the extent of employability-development opportunity made available to students within an institution. Two paradigms are preferred related to the researches on teaching qualifications. The first, which has been characterized as the process-product research accounts for the majority of the studies. In these studies, the effective teaching is sought by correlating with particular processes, or teacher behaviours related to particular products usually defined as the student achievements are explored by researchers using standardized tests (e.g. Darling-Hammond, 1992, 2000; Kennedy, 1991; Liakopoulou, 2011; Wright, Horn, & Sanders, 1997). The second paradigm includes the diverse groups of qualitative or interpretive studies that provide detailed descriptive accounts by considering participants' cognitive constructs related to the effective teaching (e.g. Cochran-Smith & Lytle, 1993; Telford & Masson, 2005; Voss & Gruber, 2006). In general, in such kind of studies the teaching qualifications is discussed in the context of emotional and social quality. Due to being insufficient alone of the rational thought and logical processes, the studies focusing on the ideal teachers' qualifications (e.g. Assan, 2014; Çiltaş & Akıllı, 2011; Darling-Hammond, 2010; Devlin, 2010; Douna, Kyridis, Zagkos, Ziontaki, & Pandis, 2015; Ibrayev, 2014; Karadağ, 2011; Milanowski, 2004; Rivkin, Hanushek, & Kain, 2005; Tangkere, Langitan, Maukar, & Roring, 2018; Tunca, Alkın-Şahin, Oğuz, & Güner, 2015; Tüfekçi-Akcan, Malkoç, & Kızıltan, 2018) are gained more importance.

In previous studies, it was benefitted from the constructivist theories such as radical constructivism and social constructivism (e.g. Butt, 2007; Fransella, 2006; Raskin, 2006; Warren, 2004), as well as to different philosophical theories, mainly phenomenology (e.g. Apalgren, 2001, 2003; Butt, 1997, 2003, 2004; Warren, 1998) trying to explain how the people think. Therefore, the current study was conducted based on 'Personal Construction Theory' which developed by Kelly in 1955. The Personal Construction Theory is a personal constructivist theory which aims to explain the individual's beliefs and world view by his/her 'personal constructs' in cognitive dimensions formed by two opposite poles (Dalton & Gavin, 1992). The repertory of an individual's constructs and the relationship between these constructs provides a basis for predicting individual's beliefs and judgments (Greyling & Lingard, 2015; Paszkowska-Rogacz & Kabzińska, 2012). Over the years,

'Kelly's Personal Construction Theory' was thoroughly revised and developed, and it has also been successfully applied to many fields of research and practice (Pervin & John, 2002).

The basic starting point of the Personal Construction Theory is cognitive structure. Cognitive structure is characterized as a mental state that it is achieved in consequence of several cognitive process (Cücelođlu, 1991, p. 201). The cognitive process in a sense is deeply rooted in the individual's interactions with the milieu. The cognition creation process is a conscious process of individual's mind, including different aspects such as awareness, perception, reasoning, and judgment (Wilson, 2002). Cognitive structure system embraces the total network of a person's constructs, and it includes tacit as well as verbal constructs (Bussis, Chittenden, Amarel, & Klausner, 1985). Therefore, it has been accepted that the personal constructs are individually created and structured. Lecturers' professional attitudes and behaviours can be evaluated as the most important factors that shape prospective teachers' cognitive structures related to the ideal lecturers' qualifications. In this context, this study focuses on revealing the cognitive constructs of the prospective teachers stored in their mind related to the 'ideal lecturer qualifications'. For this purpose, the answer was sought following question what are the prospective teachers' cognitive constructs related to the ideal lecturers' qualifications?

METHOD

This study was conducted in a case study design, which is a qualitative research method. Qualitative research designs are used to obtain comprehensive knowledge about a topic (Denzin & Lincoln, 2005; Marshall & Rossman, 2006; Patton, 2014; Singh, 2007). The case study allows an investigation to retain the holistic and meaningful characteristics of real-life events, and this method enables researchers to closely examine data within a specific context (Fidel, 1984; Yin, 2003; Zainal, 2007).

Study Group

The study group consisted of 21 prospective teachers. The participants were determined by using the homogenous sampling method. Homogenous sampling involves selecting similar cases to further investigate a particular phenomenon or subgroup of interest. Describing a particular subgroup in depth, allows to reduce variation, simplifies analysis and facilitates group interviewing (Paliknas et al., 2015; Teddie & Yu, 2007). The participants were 12 female (57.1%) and 9 male (42.9%). They were attending pre-school teacher training programme. The average age was 21.3.

Research Instrument and Procedures

The study was conducted in four stages: (i) definition of the problem, (ii) preparation of the data collection instrument, (iii) data collection, and (iv) data analysis and interpretation (Mayring, 2011).

(i) *Definition of the problem:* In the first stage, the problem was defined. Then, a conceptual framework was created to be able to classify and compare the ideal lecturers' qualifications examined in current study.

(ii) *Preparation of the data collection instrument:* In this phase data collection tool was prepared. Data was obtained by using "triad repertory grid" technique (Adams-Webber, 1996; Bell, 2005; Jankowicz, 2004).

The repertory grid form used in study is given in Figure 1.

Lecturers							
Cognitive Constructs	Ideal			Non-ideal			Non-ideal qualifications
	Halime	Füsün	Nuran	Şeyma	Tacetin	Afife	
<i>Ideal qualifications</i>	△		△	△			
		△			△	△	

1. Imagine that the two lecturers in each trio display same qualification in a similar manner but third is different.
2. Write your answer as two words, two parts of sentence or two identifications which separated by dashes (-).
3. The figure has been named as similar pole (ideal) that two lecturers' qualifications are similar.
4. The figure has been named as averseness pole (non-ideal) that two lecturers' qualifications are different from the third lecturer.

Figure 1. The triad repertory grid form

(iii) *Data collection:* In repertory grid technique, the data is obtained based on different stages (Adams-Webber, 1996; Fransella, Bell, & Bannister, 2004). Firstly, it was asked from the prospective teachers they should think about three lecturers displaying ideal characteristics and then the three lecturers displaying non-ideal characteristics. Secondly, it was asked from the participants that they should place three ideal lecturers in sections of grid form using code names. In the same way, it was asked from participants that they should place three non-ideal teachers using code names. In the third stage, it was asked from each participant that they should specify ideal qualifications according to the importance level and so ten two-dimensional cognitive constructs were obtained. In the fourth stage, the cognitive constructs were scored by each participant among 1-6 points on the repertory grid form. Each interview has lasted about 20 minutes.

As an example a grid form completed by a candidate teacher given in Figure 2.

Lecturers							
Cognitive Constructs	Ideal			Non-ideal			
	Halime	Füsün	Nuran	Seyma	Tacettin	Afife	
<i>Ideal qualifications</i>							<i>Non-ideal qualifications</i>
Good-humoured	4 Δ	6	4 Δ	2 Δ	1	1	Domineeringness
Acknowledged expert	5	6 Δ	5	3	2 Δ	2 Δ	Disrespectful to diversity
Respectful for diversity	4	6	4	3	2	2	Comparing with peer

Figure 2. The repertory grid form completed by a candidate teacher

(iv) *Data analysis and interpretation:* Data was analysed by using the descriptive analysis method. This method includes four stages namely, characterising constructs, identifying core constructs, assessing relationships, and analysing data (Jankowicz, 2004). In the first stage, a total of 210 cognitive constructs were characterised related to ideal lecturer qualifications. In the second stage, the cognitive constructs were classified into groups considering similar qualifications. In the third stage, ideal cognitive constructs were grouped, in a way that any construct left out. In the fourth stage, the scores were added and the first produced cognitive construct score was multiplied by '10', the last cognitive construct score was multiplied by '1' and thereby the relative importance scores were obtained.

Interpretation of findings was carried out in seven stages namely, (i) counting step: this stage includes the separation of data to cognitive constructs groups and determining frequencies (ii) sampling step: this stage includes the notation of the examples or issues occurred as a result of repetitions (iii) classification of similarities: this stage includes separation to groups of cognitive constructs with similar characteristics (iv) categorisation: this stage is includes grouping of variables in accordance with the purpose of the study (v) association of variables: this stage includes the identification of relationships between variables (vi) establishment of cause-effect relationships: this stage includes the establishment a connection between variables, and (vii) association of data with the research's theory: this stage includes the explanation the reasons of specific data occurrence and general suggestions.

Validity and Reliability

To ensure the internal validity of the research following studies have been conducted: (i) data was interpreted considering the situation which they are associated (ii) the internal consistency of cognitive constructs groups was ensured considering internal homogeneity and external heterogeneity measures. Besides, the cognitive construct groups were determined based on the theoretical structure, and the data analysis of all findings were presented without comment to ensure internal reliability

(Creswell, 2015, pp. 250-254). Additionally, it was applied to the expert opinion in order to verify whether the opinions represent sub-themes given under four different main themes. The lists containing the opinions and sub-themes were given to a faculty member in educational sciences. It was asked from the expert that he should compare the opinions with the sub-themes in the lists, and then the matches were compared. It was applied the formula 'Reliability= Consensus/ (Consensus + Dissidence) × 100' to determine the reliability of the coding (Miles & Huberman, 1994, p. 64). The agreement between the two coders was calculated as '204 / (204+6) × 100 = 97'. In addition, the research model, study group, data collection tool and data analysis processes were given in detail to ensure the external validity of the study. Besides, the procedure was specified, in detail for each sections to ensure the external reliability of the study: the procedures including data collection, data analysis, consolidation and presentation of results, and the topic and the method.

RESULTS

The results show that the candidate teachers have produced 210 valid cognitive constructs related to ideal lecturer qualifications. The most frequently mentioned cognitive constructs are namely, (1) communication skills [$\eta=11$, 5.2%], (2) professional competence [$\eta=9$, 4.3%], (3) acknowledged expert [$\eta=8$, 3.8%], (4) motivation skills [$\eta=7$, 3.3%], (5) good humoured [$\eta=7$, 3.3%], (6) treating fairly [$\eta=6$, 2.8%], (7) respectful different opinions [$\eta=5$, 2.4%], (8) innovative/inventive [$\eta=5$, 2.4%], (9) academically/scientifically accoutred [$\eta=4$, 1.9%], and (10) classroom management [$\eta=4$, 1.9%]. The cognitive constructs were analysed and then similar constructs were classified. As a result of classification, eight main construct groups were determined according to the 210 valid cognitive constructs.

Results of cognitive constructs are given in Table 1.

Table 1. Results of cognitive constructs (N=21)

PERSONAL QUALIFICATIONS (n=19, f=54)	
Versatility [3] 210	Calm [16] 105
Solution-focused [14] 210	Responsible [1] 92
Idealist [20] 210	Work planned [13] 92
Dynamism [4] 207	Modern [9] 84
Innovative [9] 198	Vision [3] 76
Helpful [21] 198	Vivacious [8] 76
Dynamism [8] 189	Innovative [21] 76
Trustworthy [10] 189	Idealist [4] 69
Openness to criticism [9] 168	Principled [20] 68
Consistent [10] 168	Inventive [9] 66
Work planned [12] 168	Responsible [2] 63
Humanist [20] 161	Consistent [3] 63

Tolerant [19] 154	Consistent [20] 63
Prudent [1] 147	Visionary [21] 54
Participative [4] 147	Visionary [1] 46
Objective [8] 144	Thoughtful [4] 46
Dynamism [1] 126	Have peace of mind [15] 44
Objective [10] 126	Tolerant [14] 42
Innovative [20] 126	Thoughtful [19] 38
Dynamism [6] 120	Inventive [10] 23
Positive [8] 120	Modest [18] 22
Tolerant [12] 120	Self-audit [1] 21
Wisecracking [15] 120	Idealist [2] 21
Openness to criticism [21] 119	Thoughtful [11] 21
Faithful [11] 110	Consistent [7] 18
Principled [21] 110	Trustworthy [8] 18
Neat [9] 105	Solution-focused [20] 18
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ACADEMIC EFFICACY (n=20, f=31)	
Acknowledged expert [2] 240	Acknowledged expert [17] 168
Acknowledged expert [5] 240	Scientifically accoutred [11] 147
Acknowledged expert [6] 230	Knowledge on own field [16] 132
Researcher [9] 220	Academic competence [18] 132
Acknowledged expert [1] 210	Researcher [2] 126
Acknowledged expert [4] 210	Self-proclaimed expert [14] 115
Researcher [11] 210	Researcher [20] 115
Self-improvement [13] 210	Scientifically accoutred [10] 105
Self-renewal [2] 207	Self-enhancing [10] 92
Self-renewal [6] 207	Proficiency in the field [21] 60
Acknowledged expert [7] 207	Self-renewal [11] 42
Learnedness [12] 200	Academically effectiveness [5] 40
Equipped in the field [19] 198	Academically effective [20] 40
Academically accoutred [8] 180	Academic prestige [17] 21
Scientific perspective [9] 176	Academically accoutred [21] 18
Acknowledged expert [3] 168	
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PROFESSIONAL COMPETENCY (n=16, f=28)	
Professional competence [16] 210	Classroom management skills [5] 84
Orientation ability [20] 207	Engaged learning [7] 84
Professional competence [15] 198	Teaching skill [15] 84
Using technology [2] 192	Professional competence [19] 63
Professional competence [1] 184	Concentration [12] 60
Professional competence [5] 184	Student centred teaching [6] 60
Application skill [16] 168	Classroom management skills [7] 51
Professional competence [14] 160	Effective method [15] 51
Classroom management skills [6] 147	Use technology [9] 48
Effective teaching [12] 140	Professional competence [18] 48
Professional competence [3] 133	Role-model [3] 42

Orientation ability [3] 105	Professional competence [17] 42
Orientation ability [11] 88	Classroom management skills [12] 21
Familiarization to learner [16] 88	Calling with student's name [19] 21
COMMUNICATION SKILLS (n=17, f=25)	
Communication skills [19] 220	Behave loosely [8] 126
Communication skills [11] 216	Communication skills [7] 114
Good-humoured [10] 210	Speech [17] 110
Communication skills [15] 210	Social skills [2] 84
Communication skills [17] 210	Eloquence [6] 84
Good-humoured [21] 210	Social skills [11] 66
Good-humoured [15] 184	Good-humoured [13] 57
Good-humoured [7] 180	Communication skills [2] 46
Sincerity [17] 154	Communication skills [10] 46
Communication skills [14] 147	Communication skills [12] 42
Sincerity [15] 147	Good-humoured [16] 42
Good-humoured [5] 144	Communication skills [9] 25
Communication skills [3] 126	
STUDENT CENTEREDNESS (n=15, f=21)	
Respectful to students [1] 207	Facilitator for students [18] 115
Student centeredness [4] 184	Behave sympathetically [19] 100
Sensitive to students' problems [6] 184	Behave sympathetically [18] 88
Facilitator for students [11] 184	Makes students feel good [5] 69
Student centeredness [12] 178	Makes students feel good [14] 63
Listen with interest [18] 161	Facilitator for students [16] 60
Empathise to students [13] 140	Allocate time for students [6] 46
Consider students precious [4] 138	Allocate time for students [7] 42
Respectful to students [13] 132	Respectful to students [3] 21
Student centeredness [21] 126	Deal with students [16] 21
Behave sympathetically [17] 120	
MOTIVATION (n=15, f=20)	
Giving positive energy [3] 189	Gives positive energy [1] 105
Motivation skills [17] 189	Motivation skills [2] 105
Keeping an interesting lecture [14] 180	Motivation skills [15] 105
Motivates [16] 180	Motivation skills [7] 100
Keeping an interesting lecture [13] 176	Makes the course interesting [4] 92
Motivation skills [5] 168	Motivates students [19] 76
Motivating to success [20] 168	Keeps an interesting lecture [17] 72
Motivation skills [9] 132	Motivates [18] 66
Motivation skills [14] 126	Keeps an interesting lecture [1] 63
Motivates [4] 115	Keeps an interesting lecture [15] 21
PROFESSIONAL ETHICS (n=11, f=17)	
Efficient time use [18] 220	Lesson begins on time [14] 84
Treats fairly [5] 216	Fair assessment [12] 80

Lesson begins on time [18] 168	Treats fairly [17] 63
Treats fairly [21] 168	Treats fairly [8] 40
Lesson begins on time [19] 157	Efficient time use [13] 36
Preparation for the lesson [11] 132	Preparation for the lesson [6] 20
Treats fairly [19] 114	Fair assessment [13] 20
Lesson begins on time [13] 105	Treats fairly [14] 17
Efficient time use [12] 100	
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DEMOCRATIC ATTITUDE (n=10, f=14)	
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Loyalty to equity principle [18] 198	Displays democratic attitude [5] 115
Respectful different opinions [13] 189	Equalitarian attitude [6] 100
Respectful different opinions [16] 176	Respectful different opinions [8] 100
Respectful for diversity [7] 168	Respect for human rights [8] 69
Democratic attitude [10] 161	Respectful for diversity [10] 69
Keeps principle of equality [7] 154	Displays democratic attitude [4] 23
Respectful different opinions [2] 147	Respectful different opinions [5] 20
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In Table 1, eight main cognition groups are seen. The main construct groups and dominant cognitive constructs are as follows:

- *Personal qualifications*: This group consists 54 cognitive constructs. According to relatively importance level the three dominant cognitive constructs are namely, (1) *versatility* [3, 210], (2) *solution-focused* [14, 210], and (3) *idealist* [20, 210].

- *Academic efficacy*: This group consists 31 cognitive constructs. According to relatively importance level the three dominant cognitive constructs are namely, (1) *acknowledged expert* [2, 240], (2) *acknowledged expert* [5, 240], and (3) *acknowledged expert* [6, 230].

- *Professional competency*: This group consists 28 cognitive constructs. According to relatively importance level the three dominant cognitive constructs are namely, (1) *professional competence* [16, 210], (2) *orientation ability* [20, 207], and (3) *professional competence* [15, 198].

- *Communication skills*: This group consists 25 cognitive constructs. According to relatively importance level the three dominant cognitive constructs are namely, (1) *communication skills* [19, 220], (2) *communication skills* [11, 216], and (3) *good humoured* [10, 210].

- *Student-centeredness*: This group consists 21 cognitive constructs. According to relatively importance level the three dominant cognitive constructs are namely, (1) *respectful to students* [1, 207], (2) *student-centeredness* [4, 184], and (3) *sensitive to students' problems* [6, 184].

- *Motivation*: This group consists 20 cognitive constructs. According to relatively importance level the three dominant cognitive constructs are namely, (1) *gives positive energy* [3, 189], (2) *motivation skills* [17, 189], and (3) *keeps an interesting lecture* [14, 180].

• *Professional ethics*: This group consists 17 cognitive constructs. According to relatively importance level the three dominant cognitive constructs are namely, (1) *efficient time use* [18, 220], (2) *treats fairly* [5, 216], and (3) *lesson begins on time* [18, 168].

• *Democratic attitude*: This group consists 14 cognitive constructs. According to relatively importance level the three dominant cognitive constructs are namely, (1) *loyalty to equity principle* [18, 198], (2) *respectful different opinions* [13, 189], and (3) *respectful different opinions* [16, 176].

The candidate teachers' cognitive constructs related to ideal lecturers' qualifications were classified in eight different groups. Some participants have produced more than one cognitive construct in the same group. These repeats were assumed as only one construct.

The frequencies and percentages of participants in each cognitive construct group are given in Table 2.

Table 2. The participants' number in cognitive construct groups (N=21)

Construct groups	η	%	Diagram
1. Academic efficacy	20	16.3	
2. Personal qualifications	19	15.4	
3. Communication skills	17	13.8	
4. Professional competency	16	13.0	
5. Student centeredness	15	12.2	
6. Motivation	15	12.2	
7. Professional ethics	11	8.9	
8. Democratic attitude	10	8.2	

According to Table 2, the first three construct groups are namely, academic efficacy [$\eta=20$, 16.3%], personal qualifications [$\eta=19$, 15.4%], and communication skills [$\eta=17$, 13.8%]. Besides, the last three cognitive construct groups are respectively, democratic attitude [$\eta=10$, 8.2%], professional ethics [$\eta=11$, 8.9%], and motivation [$\eta=15$, 12.2%].

The relative importance level of cognitive constructs was obtained according to the sums. The sums were procured by multiplying each cognitive construct's score with descending numbers, respectively "from 10 to 1". The results are given in Table 3.

Table 3. The relative importance level of cognitive constructs groups (N=21)

Participants	1-Personal Qualifications	2-Academic Efficacy	3-Professional Competency	4-Communication Skills	5-Student Centeredness	6-PMotivation	7-Professional Ethics	8-Democratic Attitude
1	432	210	184		207	168		
2	84	573	192	130		105		147
3	349	168	280	126	21	189		
4	469	210			322	207		23
5		280	268	144	69	168	216	135
6	120	437	207	84	230		20	100
7	18	207	135	294	42	100		322
8	547	180		126			40	169
9	621	396	48	25		132		
10	506	197		256				230
11	131	399	88	282	184		132	
12	288	200	221	42	178		180	
13	92	210		57	272	176	161	189
14	252	115	160	147	63	306	101	
15	164		333	541		126		
16	105	132	466	42	81	180		176
17		189	42	474	120	261	63	
18	22	132	48		364	66	388	198
19	192	198	84	220	100	76	271	
20	646	155	207			168		
21	557	78		210	126		168	
Total	5.595	4.666	2.963	3.300	2.379	2.428	1.740	1.689
Average	294.5	233.3	185.2	194.1	158.6	161.9	158.2	168.9

In Table 3, the data were analysed in two different ways. Firstly, the relative importance scores of each candidate teacher's cognitive constructs were analysed and given on each line. Secondly, the construct groups were given in grey on each line considering as the main construct group for each candidate teacher. The cognitive constructs' relative importance level is considered the first three cognitive construct groups ensued as follows: (1) personal qualifications [$\eta=9$, 42.8%], (2) academic efficacy [$\eta=4$, 19%], and (3) communication skills [$\eta=2$, 9.5%]. Besides, the two main cognitive constructs were produced in professional ethics by candidate teachers. On the other hand, at least one main cognitive construct was produced in every construct group by candidate teachers.

In Table 3, total and average scores in the last two lines represent the relative importance level of each cognitive construct group. According to the total scores the first three cognitive construct

groups ensue as follows: (1) *personal qualifications* [total=5595], (2) *academic efficacy* [total=4666], and (3) *communication skills* [total=3300]. When the average scores are considered the first three cognitive construct groups are similar and come in sight as follows: (1) *personal qualifications* [\bar{X} =294.5], (2) *academic efficacy* [\bar{X} =233.3], and (3) *communication skills* [\bar{X} =194.1].

DISCUSSION and CONCLUSION

In this study it was aimed to explore in detail prospective teachers' cognitive constructs related to ideal lecturers' qualifications. For this purpose, a qualitative research was conducted on 21 prospective teachers based on repertory grid technique. The 210 cognitive constructs were produced by participants and these constructs were collected in eight main construct groups considering functionality and similarities. These main construct groups were namely, personal qualifications, academic efficacy, professional competency, communication skills, student centeredness, motivation, professional ethics, and democratic attitude. Similarly in another study conducted by Tunca, Alkın-Şahin, Oğuz and Güner (2015), it was seen that the ideal teacher educator should have professional roles and responsibilities, professional values, personal characteristics, professional ethic principles and social responsibilities. The results show that prospective teachers give extra importance personal qualifications of lecturers. Prospective teachers expect lecturers to have versatile, solution-focused and idealistic personality traits. In a previous study conducted by Douna, Kyridis, Zagkos, Ziontaki and Pandis (2015) the results show that students reckon the ideal lecturer should make use of the various practices and technological means, but they also give great value to his ability to talk with students, to take their opinion into account, to regard them as an integral part of the learning. Additionally, the academic efficacy and professional competency are seen as the primary ideal qualifications of lecturers by the candidate teachers. The most frequent qualifications were acknowledged expert, professional competence, orientation ability. According to the opinions of the prospective teachers, ideal lecturers should be equipped in their field, have the ability of orientation and have professional competence. In a study conducted by Tangkere, Langitan, Maukar and Roring (2018), it was emphasised that the lecturers should be aware of changes and developments in their fields by conducting academic researches, and renew themselves on the basis of continuous development, as well as develop ideal lecturer competences through improve academic qualifications. Similarly, in another study conducted by Akgün (2016), it was emphasised that the ideal lecturer should be a person who has been well educated in the field, specialized in the subject by constantly researching and producing new information with researches, prepared well for the topic to be taught on and use the appropriate methods and tools according to the qualifications of the course. In addition, in another study conducted by Tüfekçi-Akcan, Malkoç and Kızıltan (2018), the participants highlighted that in an ideal academic culture, there should be a balance between education, scientific activity and

contribution, and social responsibility and that academic freedom is the most essential criteria in an ideal academic culture.

The most frequently mentioned cognitive constructs were communication skills, professional competence, acknowledged expert, motivation skills, good humoured, treating fairly, respectful different opinions, innovative/inventive, academically/scientifically accoutred and classroom management skills. Prospective teachers expect the ideal lecturers to support themselves with their personality traits and professional competencies and contribute to their growth in the best way. Similar findings are seen in previous studies. In a study conducted by Aygün (2016), the results show that an ideal lecturer must be impartial in class, respect to the students' thoughts, be familiar with every student in the class, be interested in them, provide their participation in the class, be fair to their students, and be calm and sincere. In another study conducted by Ibrayev (2014), the findings revealed that the students consider the ideal lecturers usually have pleasant appearance and manners, they are intelligent and tactful enough, love to students as well as understanding, honesty and benevolence. Similarly, in a study conducted by Žeravíková, Tirpáková and Markechová (2015), it was seen that the ideal lecturers should have social competencies including communication skills, cooperation, facilitation and motivation; cognitive competencies including psychological and physiological principles of human brain functioning; personal competencies including self-evaluation, self-regulation, self-knowledge and self-development; instructional competences including creating a positive learning atmosphere.

The prospective teachers have produced the similar cognitive constructs with the qualifications in previous studies and related literature. The results were in substantial agreement with the previous studies conducted by Brown and Atkins (2002), Chepchieng, Mbugua and Kariuki (2006), Darling-Hammond (2000), Douglas and Douglas (2006), Voss and Gruber (2006). Prospective teachers produced multi-dimensional cognitive constructs related to ideal lecturers' qualifications. Kelly (2003), states that as a result of individual's interaction with external environment each new knowledge changes the individuals' mind mapping, and thus their cognitive structures are reshaped. Therefore, it was understood that the multi-dimensional cognitive constructs of prospective teachers were rooted the interaction from external environment. According to Hampson (2001), the cognitive constructs are also associated with an individual's experiences. Therefore, the other cause of this multidimensionality is stemmed from the prospective teachers' experiences in faculty environment. Consequently, it can be said that the prospective teachers' cognitive constructs were shaped based on different factors. The relative importance level of each cognitive construct was evaluated according to the total and average scores. The total scores show that the cognitive construct groups such as personal qualifications, academic efficacy, and communication skills rank as the first three cognitive construct groups. Furthermore, this sorting was same in average scores.

As a result, the prospective teachers emphasised that the lecturers should have personal qualifications, academic efficacy, professional competency, communication skills, motivation skills and professional ethics. They should also display democratic and student-centered attitudes. The results show that prospective teachers give more importance the qualifications of lecturers such as communication skills, professional competence, motivation skills, classroom management skills, being acknowledged expert, being good humoured, treating fairly, respectfulness different opinions, being innovative/inventive, being academically /scientifically accoutred. Based on the findings it can be suggested that the lecturers should have communication skills, professional competence, motivation skills, and classroom management skills. In addition, the lecturers should be acknowledged expert, good humoured, respectful different opinions, innovative/inventive, academically/scientifically accoutred and should treat fairly. Based on these results it can be asserted that the lecturers before anything else should have personal qualifications, communication skills and they should also be academically efficient. The university boards can be considered these results during the employment of the lecturers. This study was conducted in a qualitative method. Further studies can be planned on ideal lecturer qualifications by using different research patterns.

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