Development of the Scale of the Instructors' and Students' Equity and Diversity Evaluation

Maria Aleksandrovich

Tuba Kasaboğlu

Mehmet Berti Baran

presented on the 16th June 2023

JoinMe2 Closing Conference , Izmir

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Introduction

This study was conducted in order to examine the instructors' equity and diversity competencies to promote a learning environment conducive to learning.

	Turkiye	Poland	Greece	Belgium

Ethnic/Racial Diversity	Gender	Sexual Orientation	Cultural Diversity	Disabilities

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Student Scale   Instructor Scale

The Pilot Study

Ethnic Background

Table 1. Items of ethical attitude toward ethnic humor

Item	Item-total correlation	Factor Loading	H^2	M	SD
$\alpha = .94$				53.24	22.73
When I hear a joke teasing an ethnic or racial group, I feel such jokes should not be told.	.85	.88	.78	3.29	2.05
I feel very sorry that people often humiliate each other's race and ethnicity.	.79	.84	.70	3.02	1.97
A solution should be found for the problem of insulting ethnic and racial groups.	.80	.85	.72	2.79	1.98
I avoid telling jokes that make fun of a race or an ethnicity.	.75	.80	.64	3.43	2.06
I don't care if I hear a joke teasing my ethnic or racial group. *	.56	.61	.37	4.68	2.17
It feels like jokes that make fun of an ethnic or racial group are funnier. *	.68	.72	.52	3.79	2.07

Haghishi, E. F., et al. 2014. "The Scale of Ethical Attitude toward Ethnic Humour: Development, Reliability and Validity." Asian Social Science 10 (1): 74–85.

Sexual Preferences

Table 1.
Results of the Principal Components Analysis of the Internalized Homophobia Scale

Items	Components — Public Identification
23r. I do not care if they find out I'm gay/lesbian/bisexual.	-.642
10r. I feel comfortable being seen in public with an obviously gay man or an obviously lesbian woman.	-.594
11r. I feel comfortable talking about homosexuality / bisexuality in a public place.	-.572
21r. I feel comfortable with my homosexuality / bisexuality.	-.548
25. Obviously masculine lesbian women make me uncomfortable.	.507
12. It is important for me to control who knows about my homosexuality / bisexuality.	.497
22r. Homosexuality is morally acceptable.	-.493
6r. I feel comfortable in gay / lesbian bars.	-.392
1. Obviously effeminate gay men make me feel uncomfortable.	.363
5. I do not feel confident to "make eyes at" a person who is the same sex as me.	.332
2. I prefer having anonymous sexual partners.	.324
27r. Homosexuality is as natural as heterosexuality.	-.303
7. Social situations with gay men or lesbian women make me feel uncomfortable.	.263
20r. Most people do not discriminate against gays and lesbians.	-.189
24. Discrimination against gays and lesbians is still common.	.030
15. Society still punishes people for being gay, lesbian or bisexual.	-.123
13. Most people have negative reactions to homosexuality.	.247

De Lira AN, de Morais NA. Validity evidences of the Internalized Homophobia Scale for Brazilian gays and lesbians. Psico-USF. 2019; 24: 361–372.

The Pilot Study

Disability

Table 9 Attitudes to Disability Scale –summary of retained items for 16-item general scale

Scale 1: Inclusion
  People with a disability find it harder than others to make new friends
  People with a disability have problems getting involved in society
  People with a disability are a burden on society
  People with a disability are a burden on their family

Scale 2: Discrimination
  People often make fun of disabilities
  People with a disability are easier to take advantage of (exploit or treat badly) compared with other people
  People tend to become impatient with those with a disability
  People tend to treat those with a disability as if they have no feelings

Scale 3: Gains
  Having a disability can make someone a stronger person
  Having a disability can make someone a wiser person
  Some people achieve more because of their disability (e.g. they are more successful)
  People with a disability are more determined than others to reach their goals

Scale 4: Prospects
  Sex should not be discussed with people with disabilities
  People should not expect too much from those with a disability
  People with a disability should not be optimistic (hopeful) about their future
  People with a disability have less to look forward to than others

Power MJ, Green AM; WHOQOL-DIS Group. The Attitudes to Disability Scale (ADS): development and psychometric properties. J Intellect Disabil Res. 2010 Sep;54(9):860-74. doi: 10.1111/j.1365-2788.2010.01317.x. PMID: 20712699.

Gender

Development of the Gender Role Attitudes Scale (GRAS) amongst young Spanish people 67

Appendix 1. Gender Role Attitudes Scale (GRAS).

1. SFT	People can be aggressive and understanding, regardless of their sex [*Las personas pueden ser tanto agresivas y comprensivas, independientemente de su sexo*]
2. SFT	People should be treated equally, regardless of their sex [*Se debería tratar a las personas igual, independientemente del sexo al que pertenezcan*]
3. SFT	Children should be given freedom depending on their age and how mature they are, not depending on their sex [*A los niños se les debería dar libertad en función de su edad y nivel de madurez, y no por el sexo de pertenecía*]
4. FFT	Boys have the same obligations to help with household chores as girls [*Los chicos tienen las mismas obligaciones de ayudar en las tareas del hogar que las chicas*]
5. FFT	Household chores should not be allocated by sex [*Las tareas domésticas no deberían asignarse por sexos*]
6. SFT	We should stop thinking about whether people are men or women and focus on other characteristics [*Deberíamos dejar de pensar si las personas son hombre o mujer y centrarnos en otras características*]
7. FFS	My partner thinking that I am responsible for doing the household chores would cause me stress [*El que mi pareja considere que yo soy la responsable de las tareas domésticas me crearía tensión*]
8. FFS	The husband is responsible for the family so the wife must obey him [*El marido es el responsable de la familia por lo que la mujer le debe obedecer*]
9. SFS	A woman must not contradict her partner [*Una mujer no debe llevar la contraria a su pareja*]
10. SFS	I think it is worse to see a man cry than a woman [*Me parece que es más lamentable ver a un hombre llorar que a una mujer*]
11. SFS	Girls should be more clean and tidy than boys [*Una chica debe ser más limpia y ordenada que un chico*]
12. EFS	Men should occupy posts of responsibility [*Es preferible que los puestos de responsabilidad los ocupen los hombres*]

García-Cueto E, Rodríguez-Díaz FJ, Bringas-Molleda C, López-Cepero J, Paíno-Quesada S, Rodríguez-Franco L. Development of the Gender Role Attitudes Scale (GRAS) amongst young Spanish people. Int J Clin Health Psychol. 2015 Jan-Apr;15(1):61-68. doi: 10.1016/j.ijchp.2014.10.004. Epub 2014 Nov 27. PMID: 30487822; PMCID: PMC6224791.

The Pilot Study

	General Educational Experience	Cognitive Awareness	Research Issues	Behaviors/ Comfort with Interactions	Patient Care/ Clinical Issues
TABLE 3 (Continued) Factor Loadings for Cultural Awareness Scale (*n* = 159)					
22. I believe some aspects of the classroom environment at this nursing school may alienate students from some cultural backgrounds.	.471	—	—	—	—
23. I feel comfortable discussing cultural issues in the classroom.	—	—	—	—	.271
24. My clinical courses at this nursing school have helped me become more comfortable interacting with people from different cultures.	.511	—	—	—	—
25. I feel that the instructors at this nursing school respect differences in individuals from diverse cultural backgrounds.	.636	—	—	—	—
26. The instructors at this nursing school model behaviors that are sensitive to multicultural issues.	.722	—	—	—	—
27. The instructors at this nursing school use examples and/or case studies that incorporate information from various cultural and ethnic groups.	.669	—	—	—	—
28. The faculty at this nursing school conducts research that considers multicultural aspects of health-related issues.	—	—	.805	—	—
29. The students at this nursing school have completed theses and dissertation studies that considered cultural differences related to health issues.	—	—	.894	—	—
30. The researchers at this nursing school consider relevance of data collection measures for the cultural groups they are studying.	—	—	.947	—	—
31. The researchers at this nursing school consider cultural issues when interpreting findings in their studies.	—	—	.935	—	—
32. I respect the decisions of my patients when they are influenced by their culture, even if I disagree.	—	—	—	—	.713
33. If I need more information about a patient's culture, I would use resources available onsite (e.g., books, videotapes).	—	—	—	—	.722
34. If I need more information about a patient's culture, I would feel comfortable asking people I work with.	—	—	—	—	.755

Cultural Awareness

Rew, Lynn & Becker, Heather & Cookston, Jeffrey & Khosropour, Shirin & Martinez, Stephanie. (2003). Measuring Cultural Awareness in Nursing Students. The Journal of nursing education. 42. 249-57. 10.3928/0148-4834-20030601-07.

The Process of the Study

Developing a psychometric scale involves a systematic process to ensure that the scale is reliable, valid, and accurately measures the construct of interest. Our psychometric study involved the following steps:

2020

- Definition of the Construct (Nov-Dec)

2021

- Item Generation (Jan-Feb)
- Item Selection (Feb-Mar)
- Scale Format and Response Options (Feb-Mar)
- Pilot Testing (Mar-Aug)
- Item Analysis (Sep-Oct)
- Scale Refinement (Sep-Oct)
- Reliability Assessment (Sep-Oct)
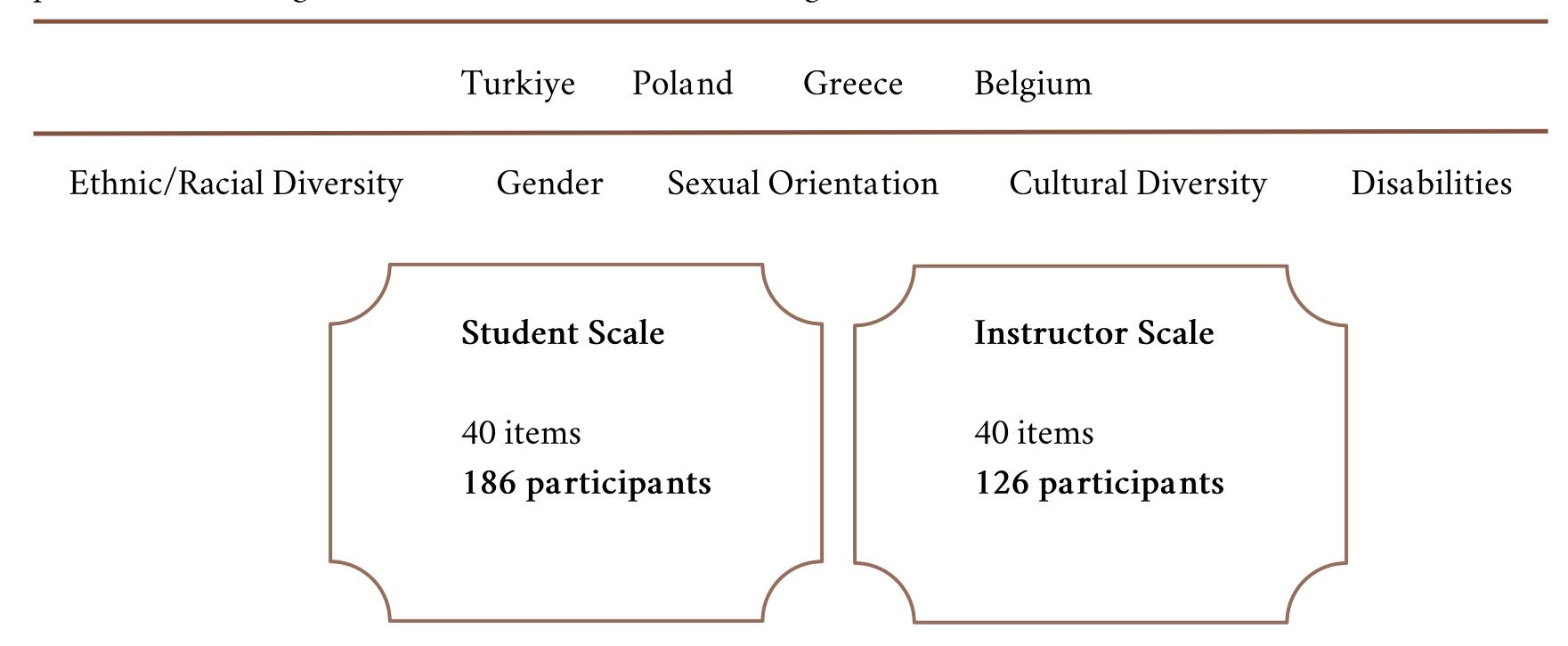- Validity Assessment (Sep-Oct)

2022

- Finalizing the Scale (Oct-Nov)
- Administration and Scoring Guidelines (Oct-Nov)
- Main study (Nov-Apr)
- Data Analysis (Apr-May)

2023

- Norming and Standardization
- Evaluation of the Practical Considerations
- Cross-Validation
- Dissemination and Publication (May)

The Pilot Study

This study was conducted in order to examine the instructors' equity and diversity competencies to promote a learning environment conducive to learning.

Turkiye	Poland	Greece	Belgium

Ethnic/Racial Diversity   Gender   Sexual Orientation   Cultural Diversity   Disabilities

Student Scale

40 items
186 participants

Instructor Scale

40 items
126 participants

The Pilot Study

The statistical research was conducted in SPSS with help of descriptive statistics, factor analysis and study of discriminative power and post hoc comparisons (Dunnett's test and Sidak multiple comparisons test) of data both in the groups of students and instructors from four different countries.

The obtained data allowed us to conclude, which statements will be used in the main study of the project. All the statements with unsatisfactory psychometric characteristics (for example Cronbach's alpha ≤ 0,06) were excluded from the scales.

In general, **the scales showed good psychometric characteristics and can be used for the further part for the project's research.**

The Main Study

Turkiye   Poland   Greece   Belgium

Ethnic/Racial Diversity   Gender   Sexual Orientation   Cultural Diversity   Disabilities

Student Scale

35 items
677 participants

Instructor Scale

36 items
268 participants

The Scale of Students

Cultural Awareness

The instructors at my university adequately address multicultural issues in their classes.	.70
My instructors try to provide opportunities for activities related to cultural awareness.	.76
My instructors' classroom behaviours are influenced by his/her culture.*	
My instructors are less patient with students of different cultural backgrounds.	
I believe my instructors are comfortable working/studying with colleagues/students of different cultural backgrounds.*	.56
My instructors help me to increase my understanding of multicultural issues.	.70
During group discussions or exercises, the instructors make efforts to ensure all students are included regardless of their cultural backgrounds.	.71
My instructors seem comfortable discussing cultural issues in the classroom.	.69
Cronbach's alpha	**.88**

The Scale of Students

Ethnic Background

My instructors accept different behavioural/verbal expressions of ethnicity.	.66
I think my instructors are concerned about racial inequality in education.	.49
Students' ethnic background does not affect my instructors' behaviour in the classroom.	.46
My instructors help me develop my awareness of different ethnic backgrounds.	.60
My instructors understand why students of other ethnic backgrounds act differently.	.61
My instructors try to stop racist behaviours in my classroom.	.67
My instructors avoid telling jokes about other ethnicities and racial groups.	.37
My instructors react to ethnically biased behaviour in the classroom.	.50
Cronbach's alpha	**.82**

The Scale of Students

Sexual Preference

My instructors offer equal learning opportunities to gay and heterosexual students.	.52
I would feel comfortable having a gay teacher.*	
My instructors would not reveal their sexual orientation.*	
Any mentions of the word "homosexuality" makes my instructors feel uncomfortable.	.60
According to my instructors homosexuals affect the University's reputation negatively.	.69
According to my instructors homo and heterosexuals have the same learning-working habits.	.48
I think my instructors would feel comfortable having a homosexual student.	.65
According to my instructors homosexuality is a psychological disorder and requires therapy.	.58
Cronbach's alpha	**.82**

The Scale of Students

Gender

My instructors treat students equally, regardless of their gender.	.56
According to my instructors females are better students than males.	.63
According to my instructors some jobs/departments are not appropriate for females to study.	.80
According to my instructors marriage is more important than education for females.	.71
During lessons, my instructors' attitude is different with males and females.	.79
My instructors would prefer teaching only male or only female classes.	.72
My instructors expect females to obey school rules more than males.	.68
My instructors consider specific interests and needs of males and females.*	
Cronbach's alpha	**.90**

The Scale of Students

Disability

My instructors treat students with a disability as if they have no feelings.	.56
My instructors have knowledge and skills to educate students with disabilities.	.52
My instructors are willing to adjust their teaching to support students with disabilities.	.59
My instructors are comfortable working with students with disabilities.	.64
According to my instructors students with disabilities should be educated in separate classes.	.59
Students with disabilities are a burden on the educational system.	.37
My instructors become impatient with disabled students.	.63
My instructors don't expect too much from disabled students.	.61
Cronbach's alpha	**0,84**

The Scale of Instructors

Cultural Awareness

I adequately address multicultural issues in my classes.	0,55
I try to provide opportunities for activities related to cultural awareness.	0,52
My classroom behaviours are influenced by my culture.*	
I am less patient with students of certain cultural backgrounds.*	
I feel comfortable working/studying with colleagues/students of different cultural backgrounds.	0,38
I feel uncomfortable when I am in the company of people from different cultural backgrounds.	-0,05
During group discussions or exercises, I make efforts to ensure all students are included regardless of their cultural backgrounds.	0,45
I feel comfortable discussing cultural issues in the classroom.	0,53
Cronbach's alpha	**0,64**

The Scale of Instructors

Ethnic Background

I accept different behavioural/verbal expressions of ethnicity in my classes.	.48
I am concerned about racial inequality in education.	.43
A student's ethnic background does not affect how I behave in the classroom.	.27
I feel comfortable when I am in the company of people from different ethnic backgrounds.	.51
I understand why students of other ethnic backgrounds act differently.	.40
I try to stop racist behaviours in my classroom.	.45
I think students should avoid telling jokes about other ethnicities and racial groups.	.23
I think prejudice about different ethnic or racial groups are wrong.	.40
Cronbach's alpha	**.69**

The Scale of Instructors

Sexual Preference

I think that students who are gay should be able to receive equal education as heterosexual.	.59	.38	.79	.71	.56
I would feel comfortable teaching a gay student.	.21	.43	.87	.56	.53
My sexual orientation doesn't influence my academic life.	.52	.56	.72	.48	.54
Homosexuals affect the University's reputation negatively.	.25	.35	.69	.64	.53
Homo and heterosexuals have the same learning-working habits.	.20	.44	.55	.48	.44
I would feel comfortable having a homosexual officemate.	.27	.45	.47	.71	.51
Cronbach's alpha	.55	.69	.86	.82	.77

The Scale of Instructors

Gender

Students should be treated equally, regardless of their gender.	.44
Males are better students than females.	.50
Some jobs/departments are not appropriate for females to study.	.61
For femaless, marriage is more important than education.	.31
During my lessons, my attitude is different with males and females.	.45
I prefer to teach only male or female classes.	.36
I expect females to obey school rules more than males.	.67
I consider specific interests and needs of males and females. *	
Cronbach's alpha	**.75**

The Scale of Instructors

Disability

Students with disabilities can socially and emotionally develop when they study with students without disabilities.	.33
I have knowledge and skills to educate students with disabilities.	.36
I am willing to adjust my teaching to support students with disabilities in my classes.	.48
I feel comfortable working with students with disabilities.	.59
I think students with disabilities should be educated in separate classes.	.55
Students with disabilities are a burden on the educational system.*	.47
I tend to become impatient with disabled students.	.44
I don't expect too much from disabled students. *	
Cronbach's alpha	**.76**

Summing up

In general, the **Scale of the Instructors' and Students' Equity and Diversity Evaluation** showed good psychometric characteristics on the level of pilot and main studies. It meant the scale could be used for the project's research.

It is important to note that scale development is an iterative process, and steps may be revisited and revised based on the results of various analyses and feedback. We still have to conduct norming and standardization, evaluate practical considerations of the scale, and cross-validation, a well as to continue dissemination and publication.

Additionally, we will consult the scale with relevant guidelines and best practices in psychometrics, such as those provided by professional organizations like the American Educational Research Association (AERA) or the International Test Commission (ITC), because it is crucial for ensuring high-quality scale development.

Thank You!