PERCEPTIONS OF STUDENTS WITH DISABILITIES REGARDING THEIR ROLE IN THE IMPLEMENTATION OF EDUCATION POLICY: A Q METHOD STUDY

IVONA SALAJ, LEILIA KIŠ-GLAVAŠ

1The Office of the Ombudsman for Children, Zagreb; Croatia. Contact: ivona.salaj@gmail.com
2Faculty of Education and Rehabilitation Sciences, University of Zagreb, Croatia

Abstract: This study examined perceptions of students with disabilities (SWD) regarding their role in the implementation of education policy. We used Q methodology to understand students' position and their impact on the implementation of education policy. This is the first Q study on this issue in Croatia; therefore, the purpose of this study is to promote and familiarise Croatian researchers with Q methodology.

British physicist-psychologist William Stephenson developed Q methodology in 1935. Q is an appropriate choice for the study of issues that are socially contested, and it can be effectively accomplished with small numbers of participants. Hence, the use of Q becomes relevant for this study.

The study was carried out at the University of Zagreb in spring 2016. The study sample consisted of 15 SWD (8 females and 7 males); it included students with motor impairment, sight and hearing impairment, specific learning disability, and multiple disabilities. Participation was free and voluntary, and the selected participants were representative of the stakeholder groups. We provided SWD with Q-sort statements (called a Q-sample) as a research tool. The Q-sample consisted of 35 statements, each written on a separate card. During Q sorting, 15 SWD presented their perspectives about their role in the implementation of educational policy by ranking statements from strongly disagree (-4) to strongly agree (+4) into a normalised distribution single-centred around no opinion (0). This set of ranked statements, each done by a different participant, constitutes the Q-sort. The data were analysed using the software program PQMethod 2.35. The use of centroid factor analysis with varimax rotation produced three factors related to what is essential for strengthening the role of students in the implementation of education policy. In addition, the study concluded that Q could be a useful tool for productive stakeholder involvement to facilitate policy-implementation decisions.

Key words: Q methodology; users’ perspectives; students with disabilities; higher education; implementation

INTRODUCTION

Year after year, more and more students with disabilities are educated at public higher education institutions in the Republic of Croatia (Strategy for Education, Science and Technology, NN, 124/14). Although records of students with disabilities who use some form of support in higher education institutions are being kept, there are no reliable data on the number of students with disabilities at Croatian higher education institutions. According to the records of institutional support services for students with disabilities at seven Croatian universities, 571 students with disabilities who used some form of support in the higher education system were registered. At 34 polytechnic universities and colleges for which data are available, there are 110 students with disabilities. It is, therefore, possible to talk about almost 700 registered students with disabilities in higher education in the Republic of Croatia.

The EUROSTUDENT V research results for Croatia (EUROSTUDENT, 2014) show that out of 2,551 students involved in the survey, 14% of them self-assessed as having the following health problems: chronic illness, 5%; hearing or visual impairment, 5%; learning difficulties, 3%; long-term physical and/or health problems, 3%; mental disorder, 2%; difficulties in movement, 1%.
There is no unique definition of a student with disability in Croatia, although a definition largely accepted in higher education was adopted by the first document in this field, *The Regulation on the Organization and Operation of the Office for Students with Disabilities of the University of Zagreb* from 2007, as well as *The Regulation on Amendments to the Regulation on the Organization and Operation of the Office for Students with Disabilities of the University of Zagreb* from 2013\(^1\) (Article 3). According to this regulation, students with disabilities are "...all students who, due to illness, impairment, or disorder, regardless of the decision about the percentage of physical disability, have permanent, occasional, or temporary difficulties in the realisation of daily academic activities (students with visual and hearing impairments, physical impairments, students with chronic diseases, mental disturbances and specific learning disabilities such as dyslexia, dysgraphia, and attention deficit hyperactivity disorder [ADHD], and other health conditions and difficulties that may affect the course of study)". This definition is conceptually aligned with the definition of persons with disabilities listed in *The Convention on the Rights of Persons with Disabilities* (United Nations, 2006), and fully aligned with *Minimum Accessibility Standards for Persons with Disabilities at UNICA Universities* (Network of Universities from the Capitals of Europe) from 2008. \(^2\)

Students with disabilities at higher education institutions in the Republic of Croatia enjoy a whole range of rights: priority when enrolling at university, subsidy of study costs, scholarships, adaptation in teaching, customised assessment of acquired competencies, peer support, customised accommodation and transportation, and partial reimbursement of transportation costs.

All Croatian universities have some form of formalised support service for students with disabilities. Most universities offer various forms of support through institutional support service for students with disabilities, although they do not offer all forms at all universities with all their components. According to written sources of institutional forms of support at universities\(^3\), the forms of support include direct support for students, future students, teachers, administrative and professional staff at universities; information, lectures, workshops, counseling and education; creation of physical accessibility guides, individualised adaptation in teaching and during exams; adaptation of teaching materials; creation and adaptation of audio recordings of lectures; video recording and subtitling of lectures; digitalisation of literature; easily accessible e-learning courses for persons with disabilities; mediation in providing customised transport; accommodation in dorms with adapted rooms and home assistance; training of staff in student restaurants; spatial adaptation and acquisition of assistive technology; scholarships and awards for the most successful students with disabilities; peer support; educational assistance; volunteer service; and contacts with associations and institutions.

According to the results of the survey questionnaire, which was carried out by the Ministry of Science and Education at the beginning of 2017 in order to draft the *Guidelines for Improving the Support System for Students with Disabilities in Higher Education in the Republic of Croatia*\(^4\), some polytechnic universities and colleges, especially those with registered students with disabilities, have established institutional support service for such students. They provide such support mostly through counseling centres, but also through offices and ombudspersons for students that collaborate with non-governmental organisations that support students with disabilities at the local level. The support system for students with disabilities differs greatly across institutions: it involves mainly directing students to e-learning, counseling and instructions for teachers; providing alternative ways of taking exams; using a computer to verify knowledge; and providing access to coordinator activities, student-mentors, and student-assistants.

This paper examines the process of the implementation of education policy for students with disabilities. The implementation, as a stage of

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\(^1\) http://www.unizg.hr/uredssi/index.php/lang-hr/dokumenti
\(^2\) http://www.unizg.hr/uredssi/index.php/lang-hr/dokumenti
\(^3\) http://public.mzos.hr/Default.aspx?art=15067&sec=3674
\(^4\) http://public.mzos.hr/Default.aspx?art=15067&sec=3674
policy process, encompasses the collective action of different participants (Colebatch, 2004; Petak, 2008), and represents the process of interaction, settlement, compromise (Howlett and Ramesh, 1995), and negotiation between actors (Hill, 2010). Therefore, the paper will focus on the reality of implementation practice while studying the role of students with disabilities as informal actors in this policy.

The paper also methodologically explains and presents the use of Q methodology as part of a broader doctoral research project that examines the experiences of students with disabilities regarding the quality of services in the context of higher education, and the role of these students in the implementation of education policy. The research examines Q methodology as a method for studying different perspectives, beliefs, interests, and goals with which students from the University of Zagreb enter into a negotiation process. A few authors simply define Q methodology as a research method for the study of subjective experiences (McKeown and Thomas, 1988; Brown, 1993; Brown et al., 2008), and Brown (2006) especially recommends it for discovery and understanding of marginalised individuals.

AIMS

The aim of this study is to examine the perspectives of students with disabilities regarding their role in the implementation of education policy. The aim is also to illustrate the use of Q methodology as an effective tool to understand students’ position and their impact on the implementation of education policy. This is the first Q study on this issue in Croatia.

Q methodology is considered particularly suitable for studying social issues that raise conflicts, debates, and questions. In this research, thus, Q methodology was used as a method for examining a broad range of perspectives of students with disabilities, and detecting what is most important and least important in the implementation of education policy. It reveals shared perspectives and differences in perspectives, as well as areas of consensus and discord.

The results of the research provide information to policy makers on the current context of stakeholder participation in the implementation of education policy through the perspective of students with disabilities. The results can help decision-makers in creation of measures and strategies for overcoming obstacles to participation that will be consistent with identified shared attitudes among students. This reveals often hidden and unpredictable social discourse that helps us understand what is socially and politically acceptable in the implementation of education policy. Deconstruction of policy discourse can improve dialogue among groups that are stakeholders in the policy, it can create policy space to uncover areas of agreement in the policy debate, and it can identify unique belief structures as a guide to pinpointing policy issues (Hurd and Brown, 2004; Wolf 2004).

RESEARCH METHODOLOGY

Background

Q methodology appeared in 1935, and its creator is British physicist and psychologist William Stephenson (1953), who explored ways to study attitude, thinking, behavior, personality, interaction, as well as everything else related to subjective self-perception. Stephenson (1953) was the first to suggest the use of inverted traditional factor analysis in which participants (P-set) correlate around a set of statements (Q-sort) according to a specific order regarding the personal view and opinion on the topic examined.

In other words, Q offers scientific bases for the study of subjectivity (McKeown and Thomas, 1988; Brown, 1993; Brown et al., 2008), where subjectivity implies the personal attitude of an individual toward any question of social and/or personal importance. Q is a method for exploring and explaining patterns of subjectivity and life experience of individuals (Stephenson, 1953; Brown, 1980, 1993). Brown (1993, p. 722) deems Q to be the most appropriate method for researching social

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problems, and ensuring a deeper understanding of "opinions, beliefs, perspectives, decisions, frameworks, or stories of individuals on any subject that has a subjective component". Ramlo (2008, p. 77) believes that Q is an appropriate method "whenever a researcher wishes to determine the various perspectives and consensus within a group regarding any topic". For this reason, this methodology is widespread in psychology, political and social sciences (Brown, 1980), and it has started to spread to the fields of economics and public management (McKeown and Thomas, 1988; Addams and Propps, 2000).

Dennis and Goldberg (1996) describe Q as a method that simultaneously combines the advantages of qualitative and quantitative research because subjective viewpoints are statistically analysed by factor analysis to obtain belief structures (Stephenson, 1953; Brown, 1986, 1980; McKeown and Thomas, 1988), i.e. person-types or thinking patterns of people (Aitken, 1988). McKeown and Thomas (1988, p. 17) state that "participants who are closely related to a specific factor share a perspective". Raadgever, Mostert and van de Giesen (2008, p. 1097) define perspective as cognitive representation that a participant makes of the external reality and his or her position in this reality. Carr (1992, p. 137) thinks that "with Q technique factor analysis it is possible to obtain factors that can be thought of as idealized types of persons". Brown (1986, 1993) states that the Q sorting process is the key process in Q methodology; this process involves the arrangement of statements most commonly on the continuum from agree to disagree, which are then ranked in accordance with facts and values from participants’ unique perspective, i.e. in accordance with personal preferences, attitudes, evaluations, and feelings that are triggered by the statements. The statements alone are not facts, but expressed opinions of an individual; the fact that the participant ranks the statements according to the point of view is what introduces subjectivity (Brown 2005, according to van Exel and de Graaf, 2005). Q sorting is, therefore, a process in which participants express their personal opinion on statements, and thus reveal their personal viewpoints or their personal profile (Brouwer, 1999). The second characteristic of Q is related to applicability in research with a small number of participants (Stephenson, 1953; Brown, 1986). Since the number of participants in a Q study may be small, participants need to be carefully selected to reflect different aspects of a research topic (Watts and Stenner, 2012; McKeown and Thomas, 2013).

Research Design

When applying the Q method, four basic steps can be defined (Durning and Brown, 2007; Previte et al., 2007; Brown et al., 2008), which will be described in more detail below:

- Step 1: Constructing and designing a Q-sample (Q-set)
- Step 2: Selecting participants (P-sample or P-set)
- Step 3: Q-sorting interviews (data collection)
- Step 4: Analysing Q-sorts (data analysis)

**STEP 1: Constructing and designing a Q sample**

Each Q study begins with gathering a Concourse, which Stephenson (1953) defines as a collection of statements gathered from face-to-face conversations, writings or from any situation in which communicability is involved. Concourse is actually a concept that should contain all relevant aspects of the studied discourse.

In this study, the Concourse represents a discourse on the participation of students with disabilities in the implementation of education policy. A naturalistic approach was used for Concourse collection, in which Q-samples are statements taken from respondents’ oral communications (McKeown and Thomas, 1988), more specifically from focus group discussions. Focus groups included young persons with disabilities ranging from 18 to 38 years old, and the research was conducted in Zagreb during 2014 and 2015. There were 49 participants (28 M and 21 F), 30 of whom were high school pupils with developmental difficulties, 10 were university students with disabilities and nine were persons with disabilities (of whom four completed their studies, one dropped out, and four did not attend faculty). Regarding the cause of their disability, reported as most common were motor impairments (N = 30), then visual impair-
ments (N = 9), hearing impairments (N = 9), and dyslexia (N = 1). Apart from these, another source of the Concourse was written narratives of respondents (analysis of the Questionnaire on the Role of Students with Disabilities in the Implementation of Education Policy, which was filled out by students before focus groups) and secondary sources such as web pages, literature, reports, and journals.

From this Concourse, we selected a Q-sample (or Q-set), which is a set of randomly numbered cards, each with a statement selected from the Concourse by the researchers and meant to be ranked by participants during the Q sorting process. Although there is not a definite number of statements that make up a Q-sample, most authors agree that the number of statements should be between 20 and 80: Watts and Stenner (2012) cite 40-80; Brown (1993), 40-50; and Webler, Danielson and Tuler (2009), 20-60.

We used a strategic sample assignment (Webler, Danielson and Tuler, 2009). This means that we originally divided the Concourse into categories that are the result of Contextual Interaction Theory (motivation, knowledge, power, and interactions of actors; Bressers, 2007), to which we added categories relevant to the research topic (context of disability, context of equal opportunities in higher education, and context of user perspective). Seven categories were covered by five statements, meaning that the Q-sample consisted of 35 carefully selected statements "with the goal of capturing the diversity and complexity of the different views contained within the Concourse" (Brown et al., 2008, p. 723). The selected Q-sample, which is the instrument of this research, was then sent to selected students from the focus groups (via email) to check its comprehensiveness, relevance, and appropriateness. Based on students' suggestions, the Q-sample was revised for comprehensibility of statements. The statements were printed on cards in black print, large black print and Braille.

**STEP 2: Selecting participants (P-sample or P-set)**

The P-sample represents selected participants in the Q sorting process of statements. The participants made an intentional pattern that represents basic characteristics of the population on a selected topic. Q methodology does not require a large number of participants because validity can be achieved with a small number of participants "without sacrificing the power of statistical analysis" (Stephenson, 1985). According to McKeown and Thomas (1988), a typical number of participants ranges from 20 to 45. Webler, Danielson and Tuler (2009), for statistical and practical reasons, recommend that the ratio between the number of participants and the number of statements be 1:3, and they suggest that it can go as low as 1:2.

In this research, the P-sample consisted of 15 participants. The goal was to ensure representation of students with regard to the level of study, the year of study, and the type of disability. The participants (7 M and 8 F) were enrolled at the University of Zagreb. The average age was 24. Nine participants attended undergraduate studies, and six of them attended graduate studies. The majority of participants were in the second and third years of study (N = 10). Regarding the causes of their disability, reported as most common were motor impairments (N = 7), visual impairments (N = 4), multiple impairments (N = 2), hearing impairment (N = 1), and dyslexia (N = 1). Participation was voluntary, and the participants were guaranteed confidentiality and anonymity. Study practices followed The Code of Ethics of the Ethics Committee in Science and Higher Education (2006) and The Code of Ethics of the University of Zagreb (2007).

**STEP 3: Q sorting interviews (data collection)**

In a Q study, participants model their viewpoints on a matter of subjective importance, without having a specific problem definition forced upon them. In this study, participants presented their opinion on an issue related to the participation of students with disabilities in the implementation of education policy. This process not only empowers participants to provide a model of their point of view, but it is also paramount in the Q technique (Brown, 1993) since "analyzing the completed Q sorts reveals the subjective preference of each participant and how it varies from others" (Mutuku, 2011, p. 56).

Q sorting was conducted individually through interviews by giving the participants verbal instructions and a pack of 35 cards with printed statements. Croatian sign language was used to com-
communicate with deaf participants. Participants were asked to sort the statements in a specially prepared table according to how much they agreed with the statements. The table represents a *Most Agree to Most Disagree* continuum with nine different degrees of (dis)agreement (-4, -3, -2, -1, 0, 1, 2, 3, 4), and the distribution between these two extremes (value -4 and value +4) represents a quasi-normal distribution (van Exel and de Graaf, 2005). In this forced quasi-normal distribution, two statements were marked with the degree of (dis)agreement -4 and +4, three of them with -3 and +3, four of them with -2 and +2, five of them with -1 and +1, and seven with the neutral degree 0. The statements that the participants disagreed with were put on the left, and the statements they agreed with were put on the right; they were put in such a way that the degree of (dis)agreement increased towards the edges of the distribution (-4 and +4). The central position or the zero category in Q is not an average, but a point neutral in meaning (McKeown and Thomas, 1988; Addams and Propps, 2000). Forced distribution helps participants think about the relationship between statements because they rank statements that have a positive or negative importance in relation to other statements in their opinion in the Q-sort (McKeown and Thomas, 1988; Addams and Propps, 2000). In the Q sorting process, participants can change their mind and move the cards back and forth to and from the centre position (0) until all statements are aligned from left to right. The use of forced quasi-normal distribution reflects the assumption that not all statements are equally important to participants, and that the ones of the greatest importance will be at the edges of the distribution. The statements placed on the edges of the distribution determine different perspectives that emerge in a study (Brown, 1980) and since participants are most emotionally sensitive to statements they put at the edges (Brown et al., 2008), their comments on why they put those statements there are a valuable source of data interpretation (Brown, 2008). The ranking scores for each participant were recorded in the Q grid data sheet.

**STEP 4: Analysing Q sorts (data analysis)**

From the entire set of Q sorts, each done by a different participant, factor analysis was applied to extract a few typical Q sorts capturing the common essence of all the individual Q sorts. The factor analysis used in the Q methodology is based on the inversion of the usual application of the factor analysis that Stephenson (1936) calls generically – the R methodology. While the participants in the R methodology are "subjects" and the questions (test results) are "variables", "subjects" in the Q methodology are statements in the Q-set and "variables" are the views of individuals (Q sorts) (Webler et al., 2009). Brown states (1980, p. 12-13) that Q-factor analysis is carried out by "the correlation and factorisation by rows of the same matrix of data that in R is factored by columns." While the R methodology treats the statistical significance of each statement in a Q-set as a variable, the Q methodology is focused on individuals that classify the Q-set as the variables that contributes to the definition of factors (Stephenson, 1936; Watts and Stenner, 2012). Therefore, Stephenson (1936) simply calls the R methodology "by-variable" or "by-column analysis", and the Q methodology "by-person" or "by-row analysis". Schmolck and Atkinson (2002) have designed a PQMethod 2.11 program, which is a statistical computer program for analysing Q-sort data. This program is, due to the abovementioned differences, more appropriate for a Q analysis than standard statistical software platforms such as SPSS (Webler et al., 2009). This program "reveals scoring patterns called factors" (Kincaid, 2011, p. 22). Participants with similar views shared the same factor (Brown, 1980), and factor can be described as a shared perspective.

**RESULTS AND DISCUSSION**

Fifteen Q sorts generated in this study were analysed using the PQMethod 2.35 software program (Schmolck, 2014). The PQMethod program enables the implementation of centroid factor analysis and principal component analysis. Centroid factor analysis was used in this study, since this method is considered a favoured choice of Q methodologists (McKeown and Thomas, 1988; van Exel and de Graaf, 2005; Watts and Stenner, 2012). Then, varimax rotation was used for more focused factor iteration, described by Van Exel and de Graaf (2005, p. 11) as a "purely technical objective procedure" that is not based on a researchers’ estimate. On the
other hand, the decision about the final number of factors relies on the researchers’ estimate. The decision to retain three factors was based on certain statistical and theoretical guidelines (Brown, 1980; McKeown and Thomas, 1988; van Exel and de Graaf, 2005; Watts and Stenner, 2012) and with the help of conceptual and contextual significance, which is determined by examining the factor arrays (Watts and Stenner, 2012). Retained factors were eigenvalues 1 or more (Brown, 1980), factors in which at least two Q-sorts load only on one factor (Watts and Stenner, 2012), and factors in which at least two Q-sorts significantly load on a factor [based on the statistical calculation 2.58 x (1/√ number of statements)] (Brown, 1980, Watts and Stenner, 2012), which is 0.44, at the 0.01 significance level in the context of this research. Factor loadings show how much a certain Q-sort is close to the factor’s point of view, i.e. to what extent it contributes to the position of a given factor, and can thus be expressed as the correlation of the Q-sort with the factor (Watts and Stenner, 2012). Table 1 indicates the participants and their factor loadings.

Table 1. Factor matrix with participants’ Q-sort loadings.

<table>
<thead>
<tr>
<th>Q-sort</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant 1</td>
<td>0.8137x</td>
<td>0.0136</td>
<td>-0.1985</td>
</tr>
<tr>
<td>Participant 2</td>
<td>0.5172x</td>
<td>0.0962</td>
<td>0.2097</td>
</tr>
<tr>
<td>Participant 3</td>
<td>-0.0566</td>
<td>0.2361</td>
<td>0.4662x</td>
</tr>
<tr>
<td>Participant 4</td>
<td>0.4936x</td>
<td>0.3254</td>
<td>-0.1123</td>
</tr>
<tr>
<td>Participant 5</td>
<td>0.5102x</td>
<td>0.0952</td>
<td>0.3875</td>
</tr>
<tr>
<td>Participant 6</td>
<td>0.4416</td>
<td>0.5759x</td>
<td>0.2292</td>
</tr>
<tr>
<td>Participant 7</td>
<td>0.1342</td>
<td>0.6321x</td>
<td>0.2311</td>
</tr>
<tr>
<td>Participant 8</td>
<td>-0.2853</td>
<td>0.4047</td>
<td>0.2973</td>
</tr>
<tr>
<td>Participant 9</td>
<td>-0.0354</td>
<td>0.4277</td>
<td>0.9032x</td>
</tr>
<tr>
<td>Participant 10</td>
<td>0.4766x</td>
<td>-0.2662</td>
<td>0.1690</td>
</tr>
<tr>
<td>Participant 11</td>
<td>0.0667</td>
<td>0.3917x</td>
<td>0.1341</td>
</tr>
<tr>
<td>Participant 12</td>
<td>0.5468x</td>
<td>0.0532</td>
<td>0.0865</td>
</tr>
<tr>
<td>Participant 13</td>
<td>0.0766</td>
<td>0.7427x</td>
<td>0.1121</td>
</tr>
<tr>
<td>Participant 14</td>
<td>0.3904</td>
<td>0.0744</td>
<td>0.5993x</td>
</tr>
<tr>
<td>Participant 15</td>
<td>0.3325x</td>
<td>0.0980</td>
<td>-0.0360</td>
</tr>
</tbody>
</table>

Note: x marks the sorts identified by PQMethod as exemplifying the factor.

Correlations between factors, as shown in Table 2, illustrate that Factor 1 stands out with low correlations to the other two factors, while Factors 2 and 3 are significantly correlated (according to the value of 0.44 calculated earlier). This may indicate that Factor 2 explains many of the same views as Factor 3. However, there are substantial and important differences between these two factors at theoretical and semantic levels, as illustrated by factor arrays (Table 3).

Table 2. Correlations between factor scores

<table>
<thead>
<tr>
<th>Factor</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.0000</td>
<td>0.2700</td>
<td>0.0737</td>
</tr>
<tr>
<td>2</td>
<td>0.2700</td>
<td>1.0000</td>
<td>0.5424</td>
</tr>
<tr>
<td>3</td>
<td>0.0737</td>
<td>0.5424</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

Construct factors (types of views)

In Q-methodology, interpretation is based primarily upon factor scores; therefore, a factor array was created for each identified factor. The factor array is produced from the weighted z-scores that are calculated during the Q-sort analysis, and the array represents a reconstruction of the idealised viewpoint that defines that factor (McKeown and Thomas, 1988; van Exel and de Graaf, 2005). The normalised factor scores for the three factors are presented in Table 3. This table, according to Jeliazkova (2015), represents a compass that aids in the understanding of similarities and differences between the factors. The numbers in the table columns indicate that the statements are ranked within the factor ranging from -4 to +4. In the interpretation of the factors, we used the explanation in the brackets; the first number in the brackets represents the number of statements, and the second number represents the ranking value of the statement on that factor. Each factor was named in such a way that the name of the factor represents the essence of the student profile. We also added the motto of this group of students by citing the quotations that best describe the participants. Participants’ comments during Q sorting were used to explain or clarify some of their sorting choices.

Factor 1 Passive Actors: "Secure my rights!"

Of 44% of the shared variance of the system that saturates all three detected factors, Factor 1 accounts for 17%, and essentially describes opinions and attitudes of seven out of 15 study participants.
Table 3. Standardised ranking ("ideal" ranking) per factor

<table>
<thead>
<tr>
<th>STATEMENT</th>
<th>FACTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Students with disabilities (SWD) are most commonly involved in associations (NGOs) for the realisation of their interests.</td>
<td>0 3 0</td>
</tr>
<tr>
<td>2. SWD articulate their problems and needs in education with insufficient clarity.</td>
<td>2 0 -2</td>
</tr>
<tr>
<td>3. SWD often tend to take the 'path of least resistance' rather than try to change the existing situation.</td>
<td>3 1 -2</td>
</tr>
<tr>
<td>4. SWD get the most information about studies through the internet or from friends.</td>
<td>-1 2 3</td>
</tr>
<tr>
<td>5. It is necessary to improve support models for SWD, especially in relation to the transportation and availability of specialised services for SWD.</td>
<td>1 3 4</td>
</tr>
<tr>
<td>6. SWD may express their opinion on education, but cannot influence changes in education.</td>
<td>-3 0 -2</td>
</tr>
<tr>
<td>7. For greater influence of SWD on the implementation of education policy, it is necessary to place SWD in higher positions with decision-making power.</td>
<td>-1 1 2</td>
</tr>
<tr>
<td>8. SWD are best represented by students with disabilities because personal experience is paramount when advocating for rights and needs.</td>
<td>0 4 3</td>
</tr>
<tr>
<td>9. SWD, teaching and non-teaching staff, government agencies, institutions responsible for higher education, local community and associations are responsible for the implementation of education policy.</td>
<td>4 1 0</td>
</tr>
<tr>
<td>10. SWD believe that the implementation of education policy should involve associations (NGOs) because they are considered to be more serious and formal than students themselves.</td>
<td>-2 3 2</td>
</tr>
<tr>
<td>11. Sometimes SWD cannot simultaneously make use of multiple support models (e.g. peer support and an assistant).</td>
<td>0 2 2</td>
</tr>
<tr>
<td>12. During the study, SWD face more difficulties than other students; therefore, they have less time for other things.</td>
<td>-2 -2 3</td>
</tr>
<tr>
<td>13. Collaboration between SWD and different constituents in the implementation of education policy exists only at a formal level (it is like a consolation prize).</td>
<td>-1 0 1</td>
</tr>
<tr>
<td>14. The role of SWD in assessing achievements of education policy and the process of implementing education policy is weak.</td>
<td>0 -3 0</td>
</tr>
<tr>
<td>15. Opinions and experience of SWD are more appreciated at the university level than at the government agency, city, or county levels.</td>
<td>1 0 1</td>
</tr>
<tr>
<td>16. Universities are investing enough effort in developing a variety of support models, which makes studying easier for SWD and increases their activity while studying.</td>
<td>-4 -1 -3</td>
</tr>
<tr>
<td>17. Universities and faculties do not understand problems and difficulties of SWD, so students are constantly struggling with the same problems.</td>
<td>1 -4 -1</td>
</tr>
<tr>
<td>18. SWD believe that sometimes they need to be favoured because the disability gives them that right.</td>
<td>-4 -3 -4</td>
</tr>
<tr>
<td>19. SWD did not receive adequate secondary education because they lived 'under a bell jar'; therefore, it is harder for them to deal with challenges during studying.</td>
<td>3 -2 -4</td>
</tr>
<tr>
<td>20. SWD obtain the most information about education policy through associations and media.</td>
<td>0 0 -1</td>
</tr>
<tr>
<td>21. Better connectivity among SWD would increase their impact on changes in the implementation of education policy.</td>
<td>2 1 4</td>
</tr>
<tr>
<td>22. When connecting SWD (associations, Facebook groups, etc.), the imposition of private interests is often above the interest of the group.</td>
<td>0 -1 -3</td>
</tr>
<tr>
<td>23. The greatest interest of SWD is advocating for personal needs in education.</td>
<td>2 1 -2</td>
</tr>
<tr>
<td>24. Society perceives SWD mainly through their disability and the inabilities that the disability brings.</td>
<td>4 -1 1</td>
</tr>
<tr>
<td>25. All their lives SWD are taught that someone else will do something for them, so they sometimes forget to do some things themselves.</td>
<td>1 -3 -3</td>
</tr>
<tr>
<td>26. Physical inaccessibility of faculties is the most common form of discrimination against SWD.</td>
<td>2 -2 1</td>
</tr>
<tr>
<td>27. SWD have an interest in changes in the implementation of education policy, but they lack sufficient power.</td>
<td>-2 2 2</td>
</tr>
<tr>
<td>28. Associations (NGOs) are a link between decision-makers of education policy and SWD.</td>
<td>-1 0 0</td>
</tr>
<tr>
<td>29. SWD achieve the necessary adaptations through individual contacts between students and professors.</td>
<td>1 2 1</td>
</tr>
<tr>
<td>30. SWD positively evaluate education policy measures (enrolment, scholarships, student accommodation, peer support, support of assistants, transport).</td>
<td>-1 0 -1</td>
</tr>
<tr>
<td>31. For higher quality of study, faculties need to programmatically improve their work, and improve SWD access to teaching (professors) and non-teaching staff (e.g. reception, student service, and library).</td>
<td>3 4 -1</td>
</tr>
<tr>
<td>32. Prejudice towards SWD reduces students' power.</td>
<td>-2 -1 0</td>
</tr>
<tr>
<td>33. The most important constituent in the implementation of education policy for SWD are associations.</td>
<td>-3 -1 0</td>
</tr>
<tr>
<td>34. Evaluation of the implementation of education policy by SWD has no effect on the future of education policy (changes, abolishing measures and/or introducing new ones).</td>
<td>-3 -4 0</td>
</tr>
<tr>
<td>35. SWD are poorly informed about the goals of education policy because they are not following it.</td>
<td>0 -2 -1</td>
</tr>
</tbody>
</table>
Those students emphasise that for the implementation of education policy, all stakeholders of the process are responsible, from students with disabilities, through teaching and non-teaching staff at the faculties, to the relevant government agency and other institutions "in charge" of higher education, local community, and civil sector (associations) (9, +4). They single out universities from the group of stakeholders, and believe that these institutions of higher education do not invest enough effort in developing different models of support that make it easier for students with disabilities to study and increase their activity (16, -4). Program upgrading and enhancing the access of students with disabilities to teaching and non-teaching staff can increase the quality of studies (31, +3). These students think that society perceives students with disabilities through their disability and limitations it brings (24, +4), and that prejudice towards students with disabilities does not diminish their power (32, -2) "because they are quite active despite prejudices". Students believe that disability should not be a reason to be favoured in any way (18, -4). When discussing student power in changing education policy, students with disabilities often take the line of least resistance instead of trying to change the existing (unfavourable) situation (3, +3).

They believe that students with disabilities were not given appropriate secondary education; therefore, it is more difficult to deal with challenges during studies (19, +3), and, probably because of this, students with disabilities cannot express their opinion on (higher) education and thereby influence its changes (6, -3). Students with disabilities who evaluate education policy could cause (positive) changes (34, -3). In general, they believe that students with disabilities do not really have an interest in changes in education policy (27, -2), i.e. they articulate their problems and needs in education with insufficient clarity (2, +2). They do not see associations or the civil sector as major actors in the implementation of education policy for students with disabilities (33, -3), and do not consider them to be more serious and formal than the students themselves (10, -2). They believe that "associations may call for changes, but they cannot change the situation", and express doubt about the well-meaning of the associations; they point out that "it is necessary to see which association is really good and how it fights for the rights of people with disabilities."

At the declarative level, these students expect activity in terms of improving education conditions for students with disabilities from higher education institutions. However, they are not motivated enough, nor do they see the need for their own activation, either individually or organised through associations. They believe they are not properly educated, and they put responsibility on the shoulders of (secondary) educational institutions, instead of taking responsibility for the acquisition of education competences.

**Factor 2 Influential Actors: "Be your own advocate!"**

Factor 2 accounts for 14% of the total variance of the system, and highlights the views and opinions of four participants.

These students believe that students with disabilities can best represent students with disabilities because personal experience is paramount when advocating for rights and needs (8, +4). They state that "nobody [without disability] can put himself in our shoes", and that "it is necessary to first examine the needs of people with disabilities". They believe that the role of students with disabilities in evaluating achievements of education policy is huge (14, -3), and that students with disabilities have an interest in changes in the implementation of education policy, although they do not always have sufficient power (27, +2). Moreover, they believe that the faculties are responsible for the quality of studies for students with disabilities (31, +4) and that they are successful, at least to understand the problems and difficulties of students with disabilities (17, -4). These students are very aware of their own role in the implementation of education policy. They are aware of the importance of joining an association in order to achieve their interests (1, +3), and of the positive rankings and strengths of associations (10, +3), but they do not consider them the most significant actors (33, -1) "because [we] made some changes in the implementation by ourselves". They follow education policy (35, -2) "because [we] can easily exercise our rights", and believe that students with disabilities who evaluate
education policy could have an effect on (positive) changes in education (34, -4). As far as the areas of action are concerned, they point out the need to improve the support model for students with disabilities, especially in relation to the transportation and availability of specialised services for students with disabilities (5, +3). These students are of the opinion that their disability is not an excuse for preferential treatment (18, -3), and that they should fight their way through (25, -3).

Factor 2 describes students who are very confident and aware of their strengths and responsibilities for their own role and position in society, including the field of education.

Factor 3 Isolated Actors: "I know what I know and what I can do!"

Factor 3 accounts for 13% of the shared variance of the system, and highlights the opinions and attitudes of three students.

This factor describes students who emphasise the need to improve the support model for students with disabilities, especially in relation to the transportation and availability of specialised services for students with disabilities (5, +4). Students sharing this perspective believe that "the support system is bad because it depends on the openness of faculties", and is not solved systematically at the national level because "each faculty works individually". That is why students with disabilities face more difficulties during studies, which takes time away from other things (12, +3). These students state that they have gained adequate secondary education, and that they did not live 'under a bell jar' (19, -4) in which life is associated with learned dependence on others; this is closely associated with family and elementary school. Like other students, the participants of this research believe that social environment should not respond to their disability by making tasks as easy as ABC, or by turning a blind eye (18, -4). They are independent in advocating for their own needs (25, -3), they can clearly articulate what bothers them, and they try to change the existing (unfavourable) situation (3, -2). They believe that they "need to get by... [and] knock on every door", especially if the faculty they attend has no experience with students with disabilities. However, they expect universities to put more effort into developing different support models to make their studying easier (16, -3). They believe that better interconnection among students with disabilities would increase their impact on changes in the implementation of education policy (21, +4) because they "need to organise better as an interest group that wants changes". They have no experience of imposing private interests above the interests of a group when students with disabilities are joining an association (22, -3). They believe that their "invisibility" reduces their power, and that their biggest problem is that "most institutions believe that students with disabilities do not exist". In addition to invisibility, they cite "struggling with the same problems" as well as negative perception of the environment "of a handful of students with difficulties who are trying to change the situation, but turn out to be rebels". They get most information about their studies via internet or from friends who "went through it" (4, +3). They believe that students with disabilities can best represent and advocate for the rights and needs of students with disabilities (8, +3) because "someone who has no problems can represent, but cannot adequately respond to, our needs". They point out that persons with disabilities should be placed in higher positions with decision-making power for students with disabilities to have greater impact on the implementation of education policy (7, +2).

Even though these students seem to be fully aware of the need for changes in education, and even though they rationally argue the importance for students with disabilities to associate in order to realise their rights, it seems that their frequent struggle for achieving rights has left them exhausted. They have gone from being rebels to observers. They see associating as a solution, but it seems they lack trust and hope in the power and effectiveness of such associating due to their previous (negative) experience. It is possible that demotivation and distrust are distracting them from proactive action.

Common themes: "We don't play the sympathy card!"

The analysis of common and distinguishing statements suggests the existence of seven consensus statements. Consensus statements intensify the three different perspectives of students within a relatively narrow framework: only one of them suggests
strong disagreement (18: -4, -3, -4), and only one of them shows agreement (29: 1, 2, 1), while the other five statements offer the possibility of variation in explanation and interpretation of the statements in relation to the three groups of students. On the other hand, there is a greater number of distinguishing statements per factor (11 statements for F1, and 10 statements for F2 and F3), which means that within a relatively narrow shared framework, the factors can still be interpreted in a distinct way.

Three factors (Passive Actors, Influential Actors, and Isolated Actors) represent three types of views of students with disabilities on their role in the implementation of education policy. Their shared framework is built on things everyone agrees with. A relatively small number of consensus statements, of which only two point to stronger interconnectedness in attitudes, shows that these three groups of students do not have much in common.

All participants showed substantial disagreement with statement 18: "Students with disabilities believe that sometimes they need to be indulged because the disability gives them that right." The participants believe that getting away with disability is beneath one’s honor, and because of those who do get away with it, the others constantly need to prove themselves ("…when the professor says I don’t have to do something, I tell him I don’t want to avoid this obligation…"). Students do not need pity, but adaptation! Students who are significantly associated with all three factors share a perspective as "the necessary adaptation [achieved] through individual contacts between students and professors" (statement 29). Given the uneven views of the support system provided by universities and faculties, professors emerge as the first and sometimes only support for students with disabilities. Students say that "individual adaptation is achieved mainly through a professor" and that is "the best experience". They also identify professors and coordinators for students with disabilities as "the only people who may be listening to you and try to find a solution".

CONCLUSION

The aim of this study was to gain a better insight into perspectives of students with disabilities as one of the stakeholders in education policy on their role in the process of the implementation of policy. The results show that there are more areas in which students’ opinions diverge than areas in which students agree. This was expected given the fact that students with disabilities are a highly heterogeneous group that, in addition to individual characteristics, differs by type, degree, and time of injury, as well as needs and previous experience in the education system.

The results revealed three different perspectives of students about their role in the implementation of education policy: silent and passive actors (actors that need to be strengthened and educated for action), influential actors (actors who have knowledge, advocacy skills, motivation, and a certain degree of power to influence others), and isolated actors (actors who have lost motivation for action and have little power). Derived perspectives of students with disabilities point to factors that students consider to be constraints on participation. They point to an inadequate support system and insufficient sensibility and education of teaching staff. These results are consistent with the results of other studies conducted on this topic (Fajdetić, Kiš-Glavaš and Lisak, 2013; Krznarić, 2013; Bošković and Rinčić, 2014; Korkut and Martinac Dorčić, 2014; Meić, 2014; Slonjšak, 2014; Stančić, Kiš-Glavaš and Urbanc, 2014; Milić Babić and Dowling, 2015). The common perspectives of students with disabilities also reveal factors that need to be considered in order to strengthen students’ role. The students would consider themselves more powerful in advocating their views, interests, values, and goals if they had more knowledge and better negotiating skills. They also believe that students with disabilities are not connected well enough, both among themselves and with other actors, thereby diminishing their power. In addition to increasing their own capacities, the students emphasise the need to provide greater representation of people with disabilities in the policy area, as they believe it will help in representing their interests. These results are consistent with the results of research on the role of students with disabilities in education (Salaj, 2017) and with research on transformation of how policy towards persons with disabilities in Croatia is implemented (Kekez Koštro, Urbanc and Salaj, 2013).
The results obtained from the present research can contribute to the harmonisation of attitudes among actors, especially between immediate implementers (faculties and universities) and students as interested stakeholders who provide feedback. With a better understanding of the students with disabilities and their needs, the implementers can prioritise and negotiate with decision-makers about the issues important to the students. In this way, Q methodology directly links the decision-makers with the point at which their policy acts (Elmore, 1980). Discovering the subjective opinions of students, regardless of their power in the policy arena, is an important aspect of democratisation of society, and it contributes to the formulation, implementation, and evaluation of policy.

According to our research findings, the starting point for building a dialogue between immediate implementers -- primarily teaching staff -- and students is a change in teachers’ attitude toward students with disabilities. The shared perspective of all three groups of students with disabilities indicates that students do not want to be favoured because of their disability. Lowering the criteria, making tasks easier, and unjustified exemption from student obligations are stereotypical behaviors of teachers that are not motivated by the development of new solutions; they are most likely the result of insufficient reflection, sensibility, and education of teachers about work adaptations, which may be a response to high-pressure working conditions. These decisions and activities carried out by universities and faculties shape the implementation of this policy. This perspective of students, which showed a high level of agreement, should be set as a priority in the creation of future activities and measures of education policy, with the aim of ensuring equity in education and widening of participation.

The research was built upon on two assumptions. The first one relates to the fact that the implementation directly affects students with disabilities, and those who are closer to the policy gap know more about it. The second one relates to students who know how to conceptualise what they need in order to be able to impose their interests, needs, and values, thus influencing implementation decisions. The research was also built upon an inclusive paradigm, and we provided students with the opportunity to create a measuring instrument that strengthened them further.

This is why we chose Q methodology as a unique and interesting methodological approach that has shown success in studying subjectivity. Q methodology allowed us to give students a greater role, and to limit researchers’ bias. Compared to other methods, researchers’ bias was kept at a minimum because Q-set statements do not have the status of facts, and their meaning is not defined a priori by the researchers, but by participants in the Q-sorting process (Durning and Brown, 2007; McKeown and Thomas, 2013). The advantage of this methodology is reflected in the sorting process of statements, which assumes the active and dynamic activity of a participant. According to McKenzie et al. (2011), reading, sorting, and rearranging cards represents an innovative, interesting, and enjoyable experience for the participants, which students with disabilities confirmed at the end of sorting. The students were pondering how they would arrange statements, and they had control over the process of determining their final Q-sort. Therefore, we think that Q-sorting is more accessible and more user-friendly than, for example, filling in questionnaires or conducting interviews.

This is the first study about the role of students with disabilities in the implementation of education policy, and the first Q study in Croatia. Its importance lies in recognising students’ perspectives, which enables other stakeholders, especially implementers (faculties and universities), to see how students see the same issues as direct users of the services they provide. As Q proved to be a very good tool for recognising students’ needs in education, our goal was to present Q to Croatian researchers, and to interest them in its use, particularly for examining the subjective perspectives of marginalised groups. Because of that, we focused on a more detailed description of the particular stages of Q methodology in order to bring it closer to the researchers.

Since Q requires a significant amount of time (gathering the Concourse, individual interviews in the Q sorting process) to cover most of the participants, it is possible to sort the process without an individual contact, e.g. via e-mail. This way, addi-
tional explanations given by the participant during the sorting are lost, but in order to preserve at least part of this information, it is possible to conduct an interview by phone or Skype. The limitations of this research include that it was an intentional sample of participants who came from only one (the largest) university in Croatia, where more than half the total number of students with disabilities in the country study. However, given that Q proved to be very successful even with a smaller number of participants, and considering that the sample was represented by students with different types of impairments, in a similar ratio as in the general population of students with disabilities, we can safely argue that in the population of students with disabilities there are at least three perspectives on their role in education.
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PERCEPCIJA STUDENATA S INVALIDITETOM O NJIHOOVJOY ULOZI U PROVΕDBИ OBΟZAOVΝΕ POLITIΚE: Q ISTRAŽIVANJE

Sažetak: Ovaj rad bavi se istraživanjem percepcije studenata s invaliditetom (SSI) o njihovoj ulozi u provedbi obrazovne politike. U radu je korištena Q metodologija kako bi se stekao bolji uvid o ulozi studenata u provedbi obrazovne politike te njihovog utjecaja na provedbu. Budući da je ovo prvo istraživanje u Hrvatskoj koje koristi Q metodologiju za istraživanje percepcije studenata, svrha je ovoga rada ujedno i promicanje Q metodologije te njeno približavanje hrvatskim istraživačima. Q metodologiju osmislio je britanski fizičar i psiholog William Stephenson 1935. godine. Ova se metodologija preporuča za istraživanje društvenih pitanja te se može učinkovito primijeniti i s manjim brojem sudionika. Stoga je ona odabrana za ovo istraživanje.

Istraživanje je provedeno na Sveučilištu u Zagrebu, u proljeće 2016. godine. Istraživanjem je obuhvaćeno 15-ero SSI (8 djevojaka i 7 mladića). Prema vrsti oštećenja, u uzorku su bili zastupljeni studenti s motoričkim poremećajima, oštećenjem vida, oštećenjem sluha, specifičnim teškoćama učenja i višestrukim oštećenjima. Sudjelovanje je bilo dobrovoljno, a odabrani su sudionici predstavljali populaciju SSI kao jednih od dionika obrazovne politike. Mjerni instrument u Q istraživanju je Q set, a predstavlja skup izjava koje studenti razvrstavaju. Q set se sastojao od 35 izjava, a svaka je bila napisana na zasebnoj kartici. Za vrijeme procesa razvrstavanja (Q sortiranja), 15-ero SSI rangiralo je kartice s izjavama, prema vlastitom mišljenju u odnosu na izjave, na kontinuumu od izrazito se ne slažem (-4) do izrazito se slažem (+4), pri čemu nulta kategorija (0) predstavlja točku neutralnog značenja. Kroz ovaj proces studenti su predstavili svoje subjektivno mišljenje o svojoj ulozi u provedbi obrazovne politike. Svaki sudionici na svoj je način razvrstao izjave te je na taj način stvorio Q vrstu. Podaci iz svih Q vrsta analizirani su s pomoću softverskog programa PQMethod 2.35. Primijenjena je Q faktorska analiza (centroidna metoda) s varimax rotacijom te su dobivena tri faktora koji ukazuju na potrebne promjene s ciljem jačanja uloge studenata u provedbi obrazovne politike. Osim toga, istraživanje je pokazalo da Q metodologija može biti korisna u procesu donošenja odluka u provedbi javne politike s ciljem većeg uključivanja različitih dionika u taj proces.

Ključne riječi: Q metodologija; korisnička perpsektiva; studenti s invaliditetom; visoko obrazovanje; provedba javne politike.