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Latvian College Students' Perspectives on Inclusion

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Abstract

This study reports on the perspectives of 79 Latvian college students' perception of inclusion of children with disabilities. Education majors from the University of Latvia and non-education majors from Riga Technical University responded to a 27-item Likert scale format and four open-ended questions by filling out an electronic survey. A principal components factor analysis of the data was conducted yielding three factors. The three-factor structure was similar to a previous study, with the first two factors being reversed. Males demonstrated greater variability on factor 1, negative effects of inclusion, than females, and education majors reported perceiving fewer benefits of segregating students with disabilities than non-education majors. Overall, the results indicate mixed perceptions of inclusion, and a need to educate both education and non-education majors on the benefits of inclusion.

Key Words: special needs, attitudes, factor analysis, Latvia, teacher education

The Evolution of Latvia's Special Education System and Inclusion

The education system in Latvia is administered at three levels – national, municipal, and institutional. The Parliament (*Saeima),* the Cabinet of Ministers, and the Ministry of Education and Science are the main decision-making bodies at a national level. The Ministry of Education and Science is the education policy-making institution that also issues the licenses for opening comprehensive education institutions and sets educational standards along with the teacher training content and procedures.

After Latvia regained its independence in 1991, the issues of human rights, especially emphasizing children's rights, received greater attention, and the possibility of integration of various segregated groups have been actively discussed. During the past 20 years of independence, a shift in thinking about people with disabilities has occurred, moving from a *medical* model to a *social* model. Ainscow & Haile-Giorgis (1998) noted that the approach in most countries in Central and Eastern Europe toward children with disabilities has been heavily influenced by the Soviet science of *defectology*. Developed in the USSR during the 1920s, defectology concerned both the theory and treatment of disability, and was considered an independent discipline. The name itself is a direct reflection of the attitude toward people with disabilities as having defects that needed to be addressed; people with special needs are thus viewed as helpless, dependent, and financially burdensome. Under the social model, on the other hand, students are not viewed as being defective, but as being impacted by their environmental conditions. Booth, Ainscow, Black-Hawkins, Vaughan & Shaw (2002) note that the idea of students having *barriers to learning and participation* provides an alternative to the concept of *special educational needs*. The notion of *barriers* explains the difficulties that *all* students encounter (both special needs and non-special needs student) not only in the environment, but also through their interactions with various

contexts – the surrounding people, politics, institutions, culture, social, and economic conditions that influence their lives.

The results of studies carried out in Latvia (Hazans, Dmitrijeva & Trapeznikova 2007; Zepa, Supule, Krastina, Penke & Krisane, 2004) document that there are still many sources of social exclusion. The attitudes found within Latvian society often reflect outdated scientific theories, the viability of the previous education paradigms (e.g., concentration on academic achievement and non-flexible assessment procedure), and shortcomings of its current education policy. It has been acknowledged that in Latvia people with special needs are among the socially excluded groups (Latvian Centre for Human Rights and Ethnic Studies, 2003).

There are a comparatively large number of separate special education schools in Latvia that isolate children. Often parents of children with serious developmental delays consider these institutions to be the best place for learning and development. In Latvia, only children's parents have the right to decide which school their child will attend –the special or general comprehensive school, though the experts from the pedagogical medical commission have to examine the students and recommend one or another educational option. Consultations and advice provided by special education teachers help observe the concrete needs of every child in accordance with the law on education (Article 42, Retrieved from http://www.aic.lv/rec/Eng/leg_en/LV_lik/ed_law.htm). At this time, the environment of special education schools is open; children with disabilities participate in festivals, competitions, sports activities, and other events.

Inclusive Education in Latvia

The legislation in Latvia envisages the rights of all students to receive education in the framework of the state education system. In 2008, the Minister of Education and Science, Dr. Tatjana Koke (2008), stressed that young people with special needs are to be ensured special education, supporting the unification of education for all children, regardless of their disability. In 2012, the revised and supplemented law on education did not yet mention the term inclusive education, but its content actually defines the accessibility of education to all children (Article 42, Retrieved from http://www.aic.lv/rec/Eng/leg_en/LV_lik/ed_law.htm).

The topic of inclusive education has been receiving attention from academics on a global scale and has been the subject of conferences held in Riga. For example, the focus of the Division of the International Associations of Special Educators Council for Exceptional Children 2010 conference focused on research and practice findings that have shown both academic and social benefits for all children involved in inclusive education programs with appropriate supports. This conference came 20 years after the United Nation's Convention on the Rights of the Child (Assembly, 1989), which mandated that matters of human dignity and participation were basic human rights to be enjoyed by all children. Obi, Mamah & Avoke (2007) note that the United Nations Standard Rules on the Equalization of Opportunities for Persons with Disabilities, Rule 6, required nations to observe the principle of equality in all educational settings for children, youth, and adults with disabilities in integrated settings (United Nations, 1993). The 1994 World Conference on Special Needs Education in Salamanca, Spain (UNESCO, 1994) sparked the discussion for inclusion, and the discussion continues today as we continue to promote and monitor the progress toward inclusion on an international level. As the inclusion movement emerges more urgently around the world, the processes and practices require scrutiny and examination from a variety of pragmatic and theoretical perspectives (Winzer & Marurek 2009).

The UNESCO definition of inclusive education (UNESCO, 2009), which in the context is understandable as the inclusive approach, is used in Latvia:

> Inclusion is thus seen as a process of addressing and responding to the diversity of needs of all children, youth and adults through increasing participation in learning, cultures and communities, and reducing and eliminating exclusion within and from education. It involves changes and modifications in content, approaches, structures and strategies, with a common vision that covers all children of the appropriate age range and a conviction that it is the responsibility of the regular system to educate all children. (p. 8-9)

The definition does not emphasize children with special needs. However, the document speaks to marginalized groups (e.g. street children, Roma children, employed children or the ones serving in the army, poor children, migrant children) that must be taken into account when ensuring the accessibility to education.

In theory, inclusion is often seen by many to be a positive practice. While the commitment to inclusion has been increasing around the world (Booth et al, 2002). UNESCO (2009) research indicates that those attitudes toward inclusion have been contradictory, and have leant fuel to the fire of both proponents and opponents of inclusion (Padeliadu & Lampropoulou, 1997).

As college students are our next generation to train future teachers and shape attitudes towards people with disabilities and the work place, a number of studies that addressed college student's view of disability were examined. In a study done my Griffin, Summer, Mcmillan, Day and Hodapp (2012), the authors surveyed 256 college students about their attitudes toward students with intellectual disabilities and their inclusion in college classes. Overall, the college students reported positive

attitudes. The authors noted that female students and those with higher comfort levels perceived the abilities of people with intellectual disabilities as higher, thought more benefits were associated with their inclusion, and were more willing to interact with them on campus. Cjimxiao, Tsoi, and Wang (2012) survey 140 students from a university of education and 136 medical students from another university. These authors found that female students expressed more positive attitudes than male students but that study major was not a factor affecting college students' attitudes toward inclusion. Deng's study of attitudes toward inclusion among Chinese primary school teachers confirmed the contradictory nature of attitudes toward inclusion (Deng, 2008). Deng used a 27-item instrument to assess teacher attitudes. Data from 223 rural and urban teachers were analyzed using principal components factor analysis with varimax rotation. Three factors, positive effect of inclusion, negative effect of inclusion, and benefits of segregated special education were found. The high means from these three separate entities showed that both positive effects of inclusion and benefits of segregated special education indicated that teachers viewed both inclusion and segregated education positively.

In light of the movement in Latvia towards greater openness and inclusiveness, the purpose of this present study was to assess Latvian university students' (education majors from the University of Latvia and non-education majors from Riga Technical University) attitudes on inclusion of students with special education needs into general classrooms. As these are the students who have gone through the education system in the last 20 years, a time of great change in Latvia, they are the population of interest. The study's specific purpose was to determine the underlying dimensions of attitude toward inclusion of these students, looking to determine if the same three factors are found as in Deng (2008). In other words, will the contradictory attitudes, which were manifested among the Chinese teachers, also manifest among the student teachers' of Riga? Our study also looked at the relative importance of the three factors in defining attitudes toward inclusion among these students by looking at the overall means and standard deviations for all three factors. Differences in means and standard deviations were also assessed between education and non-education majors, as well as between males and females, with regards to the three dimensions. Open-ended questions were also asked to determine university students' understanding of and exposure to students with disabilities. Specific research questions addressed were: What are Latvian student's attitudes toward inclusion of students with disabilities? And, do the attitudes of Latvian colleges students differ between those in teacher personnel preparation programs and noneducation majors?

METHOD

Measures

A modified version of a questionnaire developed by Deng (2008) was adopted for this study and used with permission. All 27 items from Deng's questionnaire (Table 2) were kept in its original format though words such as "normal classroom" were changed to say "inclusive classroom." We used the Deng survey because it had been piloted and field-tested. We felt the questions represented our purpose in seeking students' views of inclusion.

The final instrument contained 27 questions utilizing a 5-point Likert scale (strongly disagree, mildly disagree, neutral, mildly agree, and strongly agree), which solicited participants' views about including children with disabilities into general classrooms. As with Deng's questionnaire, the questions assessed three general areas: (a) positive effects of inclusion, (b) negative effects of inclusion, and (c) benefits and issues related to segregated special education. Table 2 provides examples of questions in these areas. Additional open-ended questions were included– four questions specifically targeted students' acquaintance with persons with disabilities as well as personal demographics such as age, gender, major program of study, and country of residence. An example of an open-ended question is to what particular sorts of illnesses, conditions or disabilities do you think the term "people with disabilities" refers?

Participants

Students from two universities in Latvia were recruited to participate in the study. The first group of students comprised of 91 students from Riga Technical University in Human Resources Management, Entrepreneurship and Management, Environmental Science and Regional Development Programs. This group represented the non-education majors. The second group of students comprised of 65 students from the University of Latvia who were education majors. The University of Latvia students were recruited from the Teacher Education Program Unit and at the point of survey, had taken their education foundations theory course as well as their initial teacher training courses. Respondents' participation in the survey was voluntary and not part of a class assignment. The two groups of undergraduate students were chosen specifically because they would represent different viewpoints of society. It was surmised that the future educators were more likely to view inclusion in one perspective because of their training with children while non-education majors were more likely to view the inclusion of children the way Latvian society would.

Of the 156 students who were recruited to participate, 79 responded to all 27 questions. Of those 79 students, 32 were male and 45 were female, with two unidentified. Twenty-seven were education majors and 52 were non-

education majors. The ages of students generally ranged from 19 to 24, with two students being 33 and 34 years old.

Procedure

The electronic survey was created using Survey Monkey. The authors distributed the survey to students via an email with a link that included the online tool *Survey Monkey*. To recruit non-education majors, a researcher from the USA contacted an administrator at Riga Technical Institute by email and asked if its students would be willing to participate. The administrator sent out a link to the survey to all of its students. This researcher did not have any personal or professional connection with Riga Technical University. The education students were asked to participate by a professor in the College of Education. The professor taught the class but made it clear that participation was voluntary and had nothing to do with a class grade.

Voluntary respondents were able to click on the Survey Monkey link and complete the survey at their convenience and were advised that they were permitted to skip questions, which were all in English.

Analysis

Frequencies and basic statistics were calculated using Statistical Package for the Social Sciences (SPSS-15). Since demographic questions were categorical variables, frequencies were obtained for each of the demographic variables. Frequencies, as well as means and standard deviations were calculated for all individual Likert items in the survey for the total sample. The items were then rank ordered to determine which items were ranked highest.

Principal components factor analysis (PCA) with varimax rotation was used to analyze the data. Varimax rotation allows for a small number of large loadings and a large number of small loadings of the items on the factors (Abdi, 2003). A Scree Test was used as a way of determining the number of factors that explain a significant amount of variance (Cattell, 1966). The Scree Test plots the amount of variance explained as the numbers of factors are added. The plot visually depicts how much variance is added with each factor. Once the variance explained starts to flatten out, additional factors do not add a substantial amount of variance. Therefore, the number of factors before the flat area, called the scree, represents the fewest of unique factors that explain the most variance.

Factor scores were calculated for each of the students on all the resulting factors. Factor score means and standard deviations were calculated for education majors and non-education majors, as well as males and females. Levene's Test for Equality of Variance was used to assess differences in variance between the groups for the factor scores. Two sample independent t-tests were used to determine if there were significant differences between average factor scores.

For open-ended questions, responses were tabulated for education and non-education majors. The responses were examined and coded for themes.

RESULTS

Frequencies, means, and standard deviations for the seven highest rated Likert scale items are provided in Table 1 for the total sample, education majors and non-education majors. The most frequently chosen response for each item is in bold. Overall, the highest percentage in these highly rated items tend to be the same for education and non-education majors. It should also be noted that the responses to the individual questions support the contradictory nature of attitudes toward disabilities in that some highly rated items, 5, 20, and 27, address the benefits of inclusion, while other highly rated items, 4, 12, 13 and 15, address the benefit of separate instruction.

The variance explained from the principal components analysis is plotted in Figure 1. When looking at the drop in variance explained, it appears to flatten out around the third factor. The differences between the variances explained become fairly small after the third factor. Thus, three components or factors appear to explain all the unique variance.

Table 2 represents the results of the factor analysis, rotated factor loadings for a three-factor solution, and the specific items under each factor. Only the items with factor loadings greater or equal to .40 are shown. The items are ordered based upon the size of the factor loading. After examining the items which loaded upon each factor, the three factors were identified as a) Negative Effect of Inclusion, b) Positive Effect of Inclusion, and c) Benefits of Segregated Special Education Classes. The factor, Negative Effect of Inclusion, explained the most variance among the Latvian students at 12.8%. Positive Effect of Inclusion explained 10.4%, while Benefits of Segregated Special Education Classes explained 10.4% of variance. For Deng (2008), Positive Effect of Inclusion explained 20.8%, Negative Effect of Inclusion explained 11.4%, and Benefits of Segregated Special Education Classes explained 9.8%. Overall, the three factors in the current study explained 33.6% of the overall variance, while the three factors in Deng (2008) explained 42% of the overall variance.

Means and standard deviations for the factor scores for males and females are provided in Table 3. Factors scores can be interpreted as z-scores, having a mean of zero and a standard deviation of one (DiStefano, C., Zhu, M. & Mîndrilă, D., 2009). The results from Levene's Test for Equality of Variance indicated that there was one significant difference in variance at the .05 level of significance. For

Table 1
Number, Percent, Mean and Standard Deviation of Responses of Student's Attitudes Toward Inclusion for the Total Group, Education Majors, and Non-Education Majors for the Top Seven Items

Items	Total	Strongly disagree	Mildly disagree	Neutral	Mildly agree	Strongly agree	Average (standard deviation)
15. Special education teachers are trained to	104 (100%)	2 (1.9%)	1 (1.0%)	12 (11.5%)	36 (34.6%)	53 (51.0%)	4.32 (0.862)
use different teaching methods to teach	43* (100%)	1* (2.3%)	1* (2.3%)	6* (14.0%)	16* (37.2%)	19* (44.2%)	4.19 (0.932)
students with disabilities more effectively.	61** (100%)	1** (1.6%)	0** (0.0%)	6** (9.8%)	20** (32.8%)	34** (55.7%)	4.41 (0.804)
20. An inclusive classroom provides different	97 (100%)	1 (1.0%)	5 (5.2%)	19 (19.6%)	45 (46.4%)	27 (27.8%)	3.95 (0.882)
students with opportunities for mutual	41* (100%)	1* (2.4%)	3* (7.3%)	13* (31.7%)	18* (43.9%)	6* (14.6%)	3.61 (0.919)
communication, thus promote students to	56** (100%)	0** (0.0%)	2** (3.6%)	6** (10.7%)	27** (48.2%)	21** (37.5%)	4.20 (0.773)
understand and accept individual differences.							
5. An inclusive classroom is likely to have a	124 (100%)	9 (7.3%)	9 (7.3%)	17 (13.7%)	58 (46.8%)	31 (25.0%)	3.75 (1.131)
positive effect on the social and emotional	47* (100%)	4* (8.5%)	5* (10.6%)	7* (14.9%)	17* (36.2%)	14* (29.8%)	3.68 (1.253)
development of students with disabilities.	77** (100%)	5** (6.5%)	4** (5.2%)	10** (13.0%)	41** (53.2%)	17** (22.1%)	3.79 (1.056)
13. The needs of students with disabilities can	113 (100%)	2 (1.8%)	14 (12.4%)	22 (19.5%)	47 (41.6%)	28 (24.8%)	3.75 (1.022)
be best served in special, separate settings.	46* (100%)	1* (2.2%)	8* (17.4%)	9* (19.6%)	16* (34.8%)	12* (26.1%)	3.65 (1.120)
	67** (100%)	1** (1.5%)	6** (9.0%)	13** (19.4%)	31** (46.3%)	16** (23.9%)	3.82 (0.952)
12. The social and emotional demands of	112 (100%)	2 (1.8%)	9 (8.0%)	30 (26.8%)	51 (45.5%)	20 (17.9%)	3.70 (0.919)
students with disabilities can be met well	45* (100%)	0* (0.0%)	5* (11.1%)	11* (24.4%)	20* (44.4%)	9* (20.0%)	3.73 (0.915)
in special education settings	67** (100%)	2** (3.0%)	4** (6.0%)	19** (28.4%)	31** (46.3%)	11** (16.4%)	3.67 (0.927)
4. Children with severe disabilities should be	124 (100%)	6 (4.8%)	20 (16.1%)	18 (14.5%)	44 (35.5%)	36 (29.0%)	3.68 (1.193)
educated in special education settings.	47* (100%)	4* (8.5%)	7* (14.9%)	5* (10.6%)	16* (34.0%)	15* (31.9%)	3.66 (1.307)
	77** (100%)	2** (2.6%)	13** (16.9%)	13** (16.9%)	28** (36.4%)	21** (27.3%)	3.69 (1.127)
27. If I were a teacher, I would view a	98 (100%)	3 (3.1%)	17 (17.3%)	24 (24.5%)	28 (28.6%)	26 (26.5%)	3.58 (1.148)
student with a disability as a member of	41* (100%)	2* (4.9%)	7* (17.1%)	12* (29.3%)	10* (24.4%)	10* (24.4%)	3.46 (1.185)
the class rather than as a burden.	57** (100%)	1** (1.8%)	10** (17.5%)	12** (21.1%)	18** (31.6%)	16** (28.1%)	3.67 (1.123)

*Notes: * Education Majors ** Non-education Majors. Items are arranged by the combined average.*

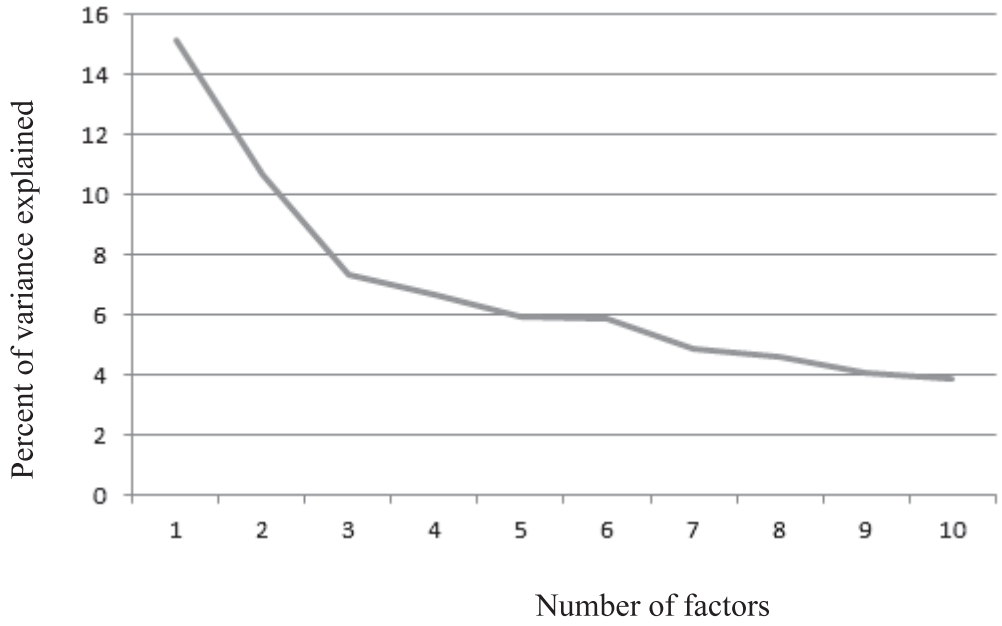

Figure 1: *Scree Plot of the Variance Explained*

factor 1, Negative Effect of Inclusion, there was a larger variance for males than for females (F=5.301, p=.024). So whereas the expectation was that the variance of both groups would be 1.0, the standard deviation of males was 1.19 while the standard deviation for females was .84. This indicates that male students had a wider range of opinions regarding the negative effects of inclusion. There were no significant differences between the mean factor scores for males and females at the .05 level of significance on any of the factors.

The means and standard deviations for education and non-education majors are provided in Table 4. Using Levene's Test for Equality of Variance, no significant differences were found between variances within factors. Using independent t-tests, one significant difference was found for Factor 3 at the .05 level of significance. Education majors had lower factors scores on average than non-education majors ($t = -3.36$, $p = .001$). This indicates that education majors are less likely to believe that students with disabilities will benefit from segregated special education. No other differences were found between the two groups at the.05 level of significance.

Qualitative Data

Four open-ended questions were asked. Of the 65 students who responded to the first open-ended question, which asked *what particular sorts of illnesses, conditions or disabilities do you think the term 'people with disabilities' refers to*, 44 students were able to identify, in their own way (language), that there are many different types of conditions or disabilities. Most were able to identify the sensory impairments, physical disabilities, and mental and emotional disabilities. However, some students did not use correct and/or politically correct language to describe (e.g., they used phrases such mental backwardness, invalid, mute, bad head and body, crippled, dysfunction).

For the second question, which asked students *to identify it they themselves had a disability,* one student reported deafness/hearing impairment, five students indicated that they had physical disability that limited such things as walking, climbing stairs, reaching, lifting or carrying. However, from the survey, it is unclear if those reported would meet the legal definition of disability. One student reported having an intellectual or learning disability two students indicated psychological and/or emotional disturbance and three students indicated other health impairment (i.e., asthma, hepatitis, diabetes, cancer, HIV, etc.). Again, it is unclear if these conditions would rise to having needed special education services. Seventy students reported having no disability, seven students did not know and six students marked "other".

For questions numbers three and four, that asked *whether they knew anyone who has a disability and if so what type of disability those person(s) have,* for the most part the students seemed to be acquainted with or close to individuals who had disabilities. Nineteen reported knowing someone with an intellectual or learning disability and fifteen were familiar with someone with a psychological or emotional condition. Nineteen reported knowing someone with a sensory disability (blind, stuttering), forty-two reported knowing someone who had a physical disability, and twenty-nine reported knowing someone with a chronic illness. Most of those persons constituted relative (e.g., a spouse, cousin) or an acquaintance through work, school or their neighborhood.

Table 2
Factor Loadings for the 3-Factor Solution

Factor 1: Negative Effect of Inclusion	
22. Students with disabilities in general classrooms take too much of the teachers' time for instruction and behavior management.	0.686
23. It is unfair for general education teachers who already have a heavy load to include students with disabilities in their class.	0.655
24. It is difficult to maintain order in a general education classroom that contains a child with a disability.	0.67
11. Significantly lower-achieving students should be excluded from the general education classroom.	0.555
8. Children who cannot read normal print size should be excluded from the general classrooms.	0.529
16. Normally developing students will be academically disadvantaged by having students with disabilities in the same class.	0.51
27. If I were a teacher, I would view a student with a disability as a member of the class rather than as a burden.	−0.503
10. Children who communicate in special ways (e.g., sign language) should not be placed in a general education classroom.	0.446
Factor 2: Positive Effect of Inclusion	
3. Inclusive classrooms will promote the academic growth of both students with and without disabilities.	0.672
1. All children with disabilities should be educated in general education classrooms	0.623
9. An inclusion program results in a genuine sharing of instructional responsibilities between special and general education teachers.	0.59
5. An inclusive classroom is likely to have a positive effect on the social and emotional development of students with disabilities.	0.542
12. The social and emotional demands of students with disabilities can be met well in special education settings.	0.541
20. An inclusive classroom provides different students with opportunities for mutual communication, thus promote students to understand and accept individual differences.	0.538
21. Teachers' instructional effectiveness will be enhanced by having a student with disabilities in class.	0.482
Factor 3: Benefits of Segregated Special Education Classes	
19. Students with disabilities will develop academic skills more rapidly in a special education classroom than in general education settings.	0.596
7. The self-esteem of students with disabilities is easily harmed in an inclusive classroom.	0.584
13. The needs of students with disabilities can be best served in special, separate settings.	0.583
17. Inclusion sounds good in theory but does not work in practice.	0.55
18. General education teachers are willing and have the skills to make needed instructional adaptations for students with disabilities.	−0.405
4. Children with severe disabilities should be educated in special education settings.	0.487

Notes: Items are ordered by absolute magnitude of factor loadings.

Table 3
Factor Score Means and Standard Deviations for Males and Females

	Gender	N	Mean	SD
Factor 1 - Negative Effect of Inclusion	Males	32	-.08	1.19
	Females	45	-.11	.84
Factor 2 - Positive Effect of Inclusion	Males	32	.04	.83
	Females	45	.22	1.06
Factor 3 - Benefits of Segregated Special Education	Males	32	.29	1.08
	Females	45	.04	.89

DISCUSSIONS AND IMPLICATIONS

The results of this study suggest that the perceptions of inclusion of Latvian students are similar to those of the Chinese teachers. In both Deng's investigation (2008) and the current study, the factor structure is similar, with both studies having a similar three-factor structure for the 27 items in the survey. The factors for both studies were (1) Positive Effect of Inclusion, (2) Negative Effect of Inclusion, and (3) Benefits of Segregated Special Education. The fact that positive and negative effects of inclusion load on separate factors, and that there is the third factor relating to perceptions of segregated education, indicates that although some students may see the benefits of inclusion, they may also, at the same time, perceive inclusion as being something negative.

However, the order of the factors was different in the current study compared with Deng (2008). In the current study, Negative Effect of Inclusion was the factor that explained the most variance, while Positive Effect of Inclusion was the factor the factor that explained the most variance in Deng (2008). This indicates that Negative Effects of Inclusion factor explains more variance among the Latvian students and is therefore a more significant factor. In other words, there is a much greater variation among Latvian students with regards to Negative Effect of Inclusion, as compared with the other two factors. Hence, their negative perceptions of inclusion had the greatest effect upon their overall differences in their perceptions of inclusion. Perhaps this variation in perceptions has to do with gender. As was indicated by the results, there was a significant difference between males and females with regards to the variance of responses to factor 1, with the variance of males being larger. This larger variance among males may explain the larger variance of factor 1. It may be masking an actual difference between males and females in their perceptions of the negative effect of inclusion. Inflated variances can result in a lack of statistical significance.

Since education is a predominantly a female profession (88.6% of teacher are female the variability among males and females may be explained due to proxy by major program of study (Retrieved from http://www.lm.gov.lv) the teacher training programs in Latvia may be highlighting inclusive education for those professionals who will have an impact on the lives of students with disabilities.

It was interesting to note that there was only one difference between education and non-education majors with regards to the perceptions of inclusion. The only difference was on the third factor, Benefits of Segregated Special Education Classes. While education majors were less likely to see the benefits of segregated classrooms, their perceptions were very similar to non-education majors with regards to the possible negative effect of inclusion. Perhaps the differences in the perceptions of the benefits of segregated classrooms has to do with their educational training, which would have emphasized the benefits of integrated, i.e. inclusive classrooms. But even as the education majors see the benefits of an inclusive classroom, they appear to have the same perceptions of the difficulties associated with inclusion, as do the non-education majors. However, it would be expected that education and non-education majors' perceptions of the difficulties would be derived from different sources. Non-education majors' perceptions would be derived from a lack of knowledge and common prejudice, while

Table 4
Factor Score Means and Standard Deviations for Education and Non-education Majors

Education majors	N	Mean	SD
Factor 1 - negative effect of inclusion	27	.11	.95
Factor 2 - positive effect of inclusion	27	.10	1.07
Factor 3 - benefits of segregated Special education	27	-.36	.87
Non-education majors	**N**	**Mean**	**SD**
Factor 1 - negative effect of inclusion	52	-.18	1.01
Factor 2 - positive effect of inclusion	52	.13	.92
Factor 3 - benefits of segregated Special education	52	.37	.94

education majors' perceptions would be based upon knowledge of students with special needs.

Deng (2008) found no difference between those who had relevant training in special education and those who didn't on all three factors. With the one exception, that of the differing perceptions of the benefits of segregated classrooms, the results of the current study is the same as Deng (2008). It should be noted, however, that the study done by Deng (2008) was conducted among practicing teachers, while the current study addresses pre-service teachers. Perhaps the experience-based difficulty in implementing inclusive classrooms impacted the teachers' perceptions of the benefits of segregated classrooms in Deng (2008), resulting in a perception of segregated classroom similar to those without training.

The qualitative data indicate that some university students still continue the use of negative terminology to describe persons with disabilities (e.g., the use of mental backwardness, invalid, mute, bad head and body, crippled, dysfunction). The researchers think this is due to a language difference in that the students' first language is not English. The survey was administered in English and it's possible that the Latvian students did not have correct people-first terminology in English. If the college students do have an appropriate command of English and, as such, continue to use wording that socially and educationally excludes persons with disabilities, then this should be addressed. A positive portrayal of persons with disabilities needs to be emphasized.

There are a few limitations in this study, which may make it difficult to generalize the findings to all of Latvia. The first limitation is the sample size. The study included 79 students, which may be insufficient to generalize the results to the entire college student population in Latvia. The second limitation involves the region from which the sample was drawn. While Riga is the urban capital of Latvia, the study did not ask if students in the sample were raised in an urban, suburban, or rural area. The area in which students were raised could affect their mindset. If we are to assume that every respondent came from the capital, where the study took place, then we would not be able to generalize the study to rural areas in Latvia. The third limitation is that the questions did not specify disabilities (e.g. learning disabilities from intellectual disabilities from physical disabilities). It is possible that each survey respondent had one form of disability in mind while answering the survey which could have impacted their responses. The final limitation is our lack of analysis regarding students' contacts with people with disabilities from those students who do not regularly have contact with people with disabilities. We suggest that future studies regarding Latvian university students' perspectives on including students with disabilities can specify disabilities, ask about the region students came from, analyze prior contact with people with disabilities, and include a larger sample size.

CLOSING THOUGHTS

The results of this survey indicate that Latvian university students are still ambivalent about their feelings for inclusion of PK-12 students with disabilities. The positive is that the education majors, who are future teachers, are less likely to see the benefits of segregated classrooms. So, they are more likely to see the benefits of inclusive classrooms. This perspective will benefit PK-12 students with disabilities as the inclusion movement increases in the Latvian school systems. However, their perceptions of the difficulties are no different than non-education majors. Hence, they see positive the benefits as well as the difficulties in inclusive classrooms. However, it is not clear if these perceptions of the difficulties would make it less likely that they would support exclusive classrooms.

The negative, but unfortunate reality, is that non-education majors (who represent a larger number of respondents on this survey) are more likely to see the benefit of segregated classrooms. These non-education majors represent a larger segment of society than teachers and their perspective indicates that Latvian society is slower to accept inclusion than other Western European nations (Chiner & Cardona, 2013; Engstrand & Roll-Pettersson, 2014). As Latvia's union and involvement with the United Nations and the European Union increases and its attitude changes, it is the hope that perspectives on including students with disabilities change to favor inclusion in the schools. Schools are a microcosm of the larger society and cannot exist alone; it is important that both society and the schools evolve with the changing times to better meet the needs of students with disabilities.

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