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Using the Index for Inclusion to measure attitudes and perceptions of inclusion in teacher and school building leader candidates in the USA and Austria

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ABSTRACT

The present investigation sought to understand the perceptions of, and attitudes toward, inclusive schooling in teacher and administrative candidates in the USA and Austria using items derived from the Index for Inclusion (Booth, T., and M. Ainscow. 2011. *Index for Inclusion: Developing Learning and Participation in Schools*. Bristol: CSIE). Responses were analysed in terms of differences between institutions, past experience and certification area. Statistical findings were contextualised with responses to open questions designed to ascertain candidates' understanding of inclusion. Significant differences were found between candidates from different institutions and from different certification areas. Additional results found interesting contradictions between reported attitudes toward inclusion and pervasive notions of a deficit model of inclusion. Finally, this work conducted statistical analysis on items derived from the Index for Inclusion, demonstrating a different application of this work, thus providing a significant contribution to the literature.

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Educational leadership; education policy; curriculum and instruction; disability; inclusive education; special education

Institutions of Teacher Education face the responsibility of providing programmes that meet the demands for present and future educational challenges. The roles of teachers and schools are changing and so are expectations of them. Increasing efforts in European and American educational programmes demonstrate an awareness of diversity, not only in schools but also in society itself.

Teacher education institutions in all countries are challenged by diverse student populations, which, in turn, require a change of approach on the part of educators, programmes and curricula. Many educators treat this issue as a problem, but diversity can be embraced as a resource (Sliwka 2010, 214) and it encourages ways to respond to it. Inclusive education is about being proactive in identifying the barriers and obstacles diverse learners encounter in attempting to access opportunities for a quality education.

Inclusion, as a principled approach to the development of education, 'is linked to democratic participation within and beyond education' (Booth and Ainscow 2011, 20). Efforts towards inclusion in both the USA and Austria act on the assumption that

inclusion is no longer seen as fitting one child to existing mainstream settings but reconstruct educational and societal concepts to promote *belonging* for every child and person. This is because 'it is now widely accepted that it concerns issues of gender, ethnicity, class, social conditions, health and human rights encompassing universal involvement, access, participation and achievement' (Owane 2008, 71).

Teacher education is being challenged to support *education and training in inclusive education for all teachers* (European Agency 2010, 12), which is one of the Key Principles for Promoting Quality in Inclusive Education (European Agency 2009).

The European Agency for Special Needs and Inclusive Education identified four core values as the basis for the work of all teachers in inclusive education. These are: (1) Valuing learner diversity – learner difference is considered as a resource and an asset to education; (2) Supporting all learners – teachers have high expectations for all learners' achievements; (3) Working with others – collaboration and teamwork are essential approaches for all teachers; (4) Continuing personal professional development – teaching is a learning activity and teachers take responsibility for their own lifelong learning (European Agency 2012, 11). Each of these values lists the attitudes and beliefs underpinning the area of competence. In general, a *competence* is best described as 'a complex combination of knowledge, skills, understanding, values, attitudes and desire, which lead to effective, embodied human action in the world, in a particular domain' (Crick, 2008 as cited in European Agency 2013, 9). This definition is convincing in its capability to tie in with a current discourse around concepts of teacher competences, leading to effective actions in inclusive education.

Research has identified that successful implementation of inclusive education largely depends on educators being positive about it. Earlier findings suggest that professional attitudes of teachers toward *integration* were influenced by attitudes (Hwang and Evans 2011; Scruggs and Mastropieri 1996; Villa et al. 1996), the severity of disability or educational problems (Avramidis, Bayliss, and Burden 2000; Wood, Evans, and Spandagou 2014) and teacher experience (Boer, Pijl, and Minnaert 2011; Urton, Wilbert, and Hennemann 2014a, 2014b). Attitudes of school building leaders (principals) have also been viewed as important factors in setting the school climate for inclusive values to develop (Price 2012; Urton, Wilbert, and Hennemann 2014a).

Belief in one's own ability to persevere and to be successful (self-efficacy) in inclusive settings has been attributed to positive attitudes toward inclusion (Urton, Wilbert, and Hennemann, 2014a). Self-efficacy (Bandura 1997) 'the conviction and expectation of being able to implement tasks and plans successfully based on one's own abilities and resources' (Bergo, Jung, and Fischer 2008, 12) is essential not only for teachers and school building leaders in schools but also to contribute to personal development and lifelong learning.

Evidence suggests that this intersection of attitudes and self-efficacy is an important factor in teachers' cultivating inclusive agency in their practice. The data collection for this study utilised the *Index for Inclusion*, where inclusion is 'most importantly seen as putting inclusive values into action' (Booth and Ainscow 2011, 21). It underpins the pre-supposition, that strengthening the subjective perception of self-efficacy can make an essential contribution to being successful in inclusive education.

The *Index for Inclusion* encourages a participatory development process, addressing the relationships among adults and children within and between settings, including parents,

governors and others in the local community. The *Index* provides indicator items and questions to guide the creation of inclusive cultures in schools.

Questions were adapted from the Creating Inclusive Cultures dimension of the Index for Inclusion (Booth and Ainscow 2011), to investigate the following three areas: (1) Candidates' support of diversity, (2) Barriers to participation and learning, (3) Candidates' confidence in reducing barriers to participation and learning. Research questions for areas 1, 2 and 3 were further reduced into research questions a and b. The research questions were as follows: question 1a: 'Do candidates believe that prejudice and discrimination exists in schools?' and question 1b: 'Do candidates recognize institutional discrimination?'; question 2a: 'Do candidates recognize barriers to learning?' and question 2b: 'Do candidates identify factors important to building inclusive school culture?'; question 3a: 'Do participants feel confident working in inclusive settings?' and question 3b: 'Do participants feel confident that they can reduce barriers to participation and learning?'

Short answer questions were also added by investigators to provide the researchers with information regarding participants' understanding of inclusion. Candidates were asked to define inclusion, identify the greatest challenge to inclusion and to describe her or his understanding of the UN-Convention on the Rights of Persons with Disabilities (Article 24).

Method

Participants

Attitudes toward inclusion and perceptions of self-efficacy of 340 teacher and school building leader candidates in two teacher education institutions in the USA ($n = 161$, 33 men and 128 women) and Austria ($n = 179$, 23 men and 155 women) were investigated. The present investigation surveyed candidates in two teacher preparation institutions; a Bachelor's level education programme in Baden, Austria, and a Master's level education programme in the USA. Despite the difference in degrees awarded, the competencies of candidates in both institutions were comparable as Austria did not offer a Master's level course of study at the time of this data collection. This study investigated the attitudes and perceptions of candidates being prepared to teach and lead schools. Because the competencies of both groups of candidates were of the same content and level of sophistication at both institutions, comparison of these groups can be justified.

Participants from both institutions were earning degrees in one or more teacher certification areas or as a school building leader. Candidates were working toward a degree in School Building Leadership, Early Childhood/Childhood, Secondary Education, Special Education, and both Early Childhood and Special Education and Secondary Education and Special Education. Only participants from the USA were working toward dual certification (Early Childhood/Childhood Education and Special Education, Secondary Education and Special Education) (see Table 1).

Teacher candidates from the USA were earning a Master's degree in Education of which 77 participants had previous experience working in an educational setting. Teacher candidates from Austria were working toward their Bachelor's degree. Seventy-eight of the participants from Austria had previous experience working in an educational setting.

Table 1. Certification area of all participants.

	Certification Area	Frequency	Per cent
	Leadership	105	30.9
	Early Childhood	98	28.8
	Secondary Education	32	9.4
	Special Education	32	9.4
	Early Childhood/Special Education	52	15.3
	Secondary Education/Special Education	15	4.4
	Total	334	98.2
Missing	99	6	1.8
Total		340	100.0

Materials and procedure

Data regarding respondents' perceptions of inclusive schooling and of his or her self-efficacy in working in inclusive settings were collected through a questionnaire derived from items from the Index for Inclusion, 3rd ed. (Booth and Ainscow 2011). The Index for Inclusion contains 70 indicators for development along three dimensions of improvement: Creating Inclusive Cultures, Producing Inclusive Policies and Evolving Inclusive Practices. Each indicator is given meaning by challenging questions, which prompt a detailed review of the setting. All 44 questions on the survey were adapted from the Creating Inclusive Cultures portion of the Index for Inclusion (Appendix) (Booth and Ainscow 2011).

Items 1–34 were statements selected to assess participants' attitudes and perceptions of inclusive schooling practices. These perceptions were rated on a 4-point scale (1 = very much or highly positive perceptions of inclusion to 4 = not at all or very low/negative perceptions toward inclusion). A Principal Component Analysis with Varimax rotation with Kaiser normalization was conducted on items 1–34.

Perceptions of preparedness and ability to successfully teach in inclusive settings (self-efficacy) were assessed with items 35–44. Perceptions toward self-efficacy of working in inclusive settings were rated on a 3-point scale (1 = definitely or strong feelings of self-efficacy to 3 = no or low to no feelings of self-efficacy). An additional choice of 'I don't know' was added. These items were assessed using principal component analysis with Varimax rotation.

Finally, short answer questions were created to gather additional information on participants' understanding of inclusion. Open questions included (1) Define/Describe inclusion, (2) Is inclusion always appropriate? Please explain, (3) What is the greatest challenge to inclusion? (4) Please describe your understanding of the UN-Convention on the Rights of Persons with Disabilities (Article 24).

Data collection

Data collection occurred at respondents' institution. Participation was voluntary and anonymous. Participants were approached by their instructor and read a description of the purpose of the study and the requirements for participating. Requirements for participating included completing multiple choice questions and short answer questions on a survey. The instructor also read a statement describing the participants' rights to withdraw or refuse to participate.

Data screening and analysis

There is a paucity of literature regarding the use of the Index for Inclusion with statistical methods; therefore, previous psychometric data cannot be reported. Hence, this application of the Index for Inclusion may be a valuable addition to the literature.

The data were initially screened for outliers. List-wise deletion based on all variables in the procedure was used for each research question. All out-of-range data were coded as custom missing values and treated as missing. Data for question 1a showed that there were 18 out-of-range values with a remaining sample size of 322 (94.7%). Six missing data were indicated for question 1b leaving a remaining sample of 334 (98.2%). For question 2a, 4 values were missing with 336 (98.8%) remaining and question 2b had 9 out-of-range values with 331 (97.4%) remaining. Finally, question 3 had 83 out-of-range values; however, 257 (75%) were remaining. For all questions, the minimum amount of data for factor analysis was satisfied.

Principal components analysis was used to identify and compute composite scores for items 1–34 from the Index for Inclusion. Initial eigenvalues indicated that the first 4 values explained 26.017%, 30.962%, 35.751% and 39.684% of the variance, respectively (Table 2). The four-factor solution was preferred because of: (a) its previous theoretical support; the levelling off of eigenvalues on the scree plot after four factors; and (c) the insufficient number of primary loadings and of interpreting the fifth and subsequent factors.

Three items were eliminated because they failed to meet the minimum criteria of having a primary factor loading of 0.3 or above and no cross-loading of 0.3 or above. The items 1: ‘Should every student feel that they attend a school in which the highest achievements are possible?’ and 15: ‘I have been taught strategies that will assist me in helping all students learn’ did not load above 0.3 on any factor. Item 14: ‘All students should participate in inclusive settings’ did not load due to administrative error and was excluded.

In the final stage, a principal components analysis factor was conducted with the remaining 41 items using Varimax rotation with Kaiser normalization. A Varimax rotation provided the best factor structure. All items in this analysis had primary loadings of at least 0.3 (Tables 3 and 4).

The internal consistency of the data block for questions 1–34 and questions 35–44 in the present as good (Cronbach’s $\alpha = 0.86$ and 0.85 , respectively). The factor labels were created based on factor loading for each category. For question 1a, ‘Do candidates believe that prejudice and discrimination exists in schools?’, nine items were analysed (11, 12, 13, 20, 21, 22, 24, 25 and 26) with internal consistency of 0.74 (Table 5). Internal consistency for question 1b, ‘Do candidates recognize institutional discrimination?’, was analysed using seven items (6, 7, 16, 17, 23, 24 and 25), also with an internal consistency of 0.74 (Table 6). Question 2a, ‘Do candidates recognize barriers to learning?’, was

Table 2. Descriptive statistics for the four factors for items derived from the Index for Inclusion.

	No. of items	Eigenvalues	Cronbach’s α
Belief prejudice/discrimination exist	9	8.8	0.74
Recognize prejudice and discrimination in schools	7	1.6	0.74
Recognize barriers to learning	7	1.6	0.62
Building inclusive school culture	9	1.3	0.71

Table 3. Factor loadings based on a principal components analysis with Varimax rotation for items 1–34 derived from the index for inclusion ($N = 340$).

Rotated component matrix				
	Component			
	Belief prejudice /discrimination exist	Prejudice/ discrimination in school	Recognize barriers to learning	Building inclusive school culture
1 ... feeling that highest achievements are possible				0.33
2 ... different degrees of conformity to school rules maybe expected			0.31	0.52
3 ... teamwork a model for collaboration of students	0.31	0.37		
4 ... positive rituals for welcoming and leaving		0.56		
5 ... encouraged to appreciate the achievements of others				0.59
6 ... school community as important as academic achievement	0.46			
7 ... attitudes about the limits to inclusion should be challenged		0.33		0.34
8 ... understanding that inclusion is about increasing participation		0.70		
9 ... understanding that inclusion is about increasing access to the school		0.70		
10 ... responsibility for making the school more inclusive		0.64		
11 ... backgrounds and home languages makes a positive contribution	0.36	0.34		
12 ... understanding the origins of discrimination as intolerance to difference	0.57			
13 ... intolerance to difference may be interpreted as racism	0.46			
14 ... cultures encompasses a range of views and degrees of observance				
15 ... barriers to learning and participation not produced by deficiencies ...	0.36	0.36		
16 ... staff understand practices reflect diversity of students	0.64			
17 ... students understand that practices reflect diversity	0.61			
18 ... recognize barriers arise because of differences in home and school	0.52		0.32	
19 ... everyone can experience barriers to learning	0.54	0.36		
20 ... avoid labeling children according to ability	0.61			
21 ... avoid contrasting mainstream and special needs students			0.38	
22 ... counter stereotypes toward people with disabilities ... as objects of pity	0.30		0.49	
23 ... school culture support boys and girls equally	0.40			0.42
24 ... appreciate difference rather than normality	0.41	0.31		
25 ... diversity seen as a rich resource to support learning	0.49	0.33		
26 ... gay and lesbian valued as part of diversity		0.45		
			0.54	

(Continued)

Table 3. Continued.

	Rotated component matrix			
	Component			
	Belief prejudice /discrimination exist	Prejudice/ discrimination in school	Recognize barriers to learning	Building inclusive school culture
27 ... disability created when people with impairments encounter negative attitudes				
28..about impairments have a limited contribution to instruction planning			0.72	
29 ... exclusion of persons with severe disabilities understood as attitudes			0.70	
30..all staff should contribute to drawing up priorities for school development	0.30			0.59
31..student views should make a difference in what happens in school	0.58			
32 ... variety of occasions for parents/ caregivers to discuss their children's progress	0.50			
33..staff should understand the role of administrators	0.60			
34 ... schools should involve local communities such as elderly people in school activities	0.44			

Note: Principal component analysis using Varimax with Kaiser normalization.

Table 4. Factor loadings using Varimax rotation with Kaiser normalization for the four-factor solution for items 1–34.

Component	Belief prejudice /discrimination exist	Recognize prejudice and discrimination in schools	Recognize barriers to learning	Building inclusive school culture
Belief prejudice /discrimination exist	0.78	0.52	0.35	0.30
Recognize prejudice and discrimination in schools	−0.30	−0.21	0.92	0.00
Recognize barriers to learning	0.16	−0.61	−0.09	0.76
Building inclusive school culture	−0.61	0.54	−0.07	0.56

Note: Principal component analysis using Varimax rotation with Kaiser normalization.

examined with seven items (8, 9, 10, 19, 27, 28 and 29) with internal consistency of 0.64 (Table 7) and internal consistency for question 2b, ‘Do candidates identify factors important to building inclusive school culture?’, was examined with nine items (2, 3, 4, 5, 30, 31, 32, 33, 34) for 0.71 (Table 8).

Finally, question 3, ‘Do participants feel confident that they can reduce barriers to participation and learning?’, was analysed with 10 items (35–44) with an internal consistency of 0.85 (Table 9).

Review of open questions 45–49 was completed using data reduction and data display (Miles and Huberman 1994). Miles and Huberman (1994) defined data analysis, ‘as consisting of three concurrent flows of activity: (1) Data reduction, (2) Data display, and (3) Conclusion drawing/ verification’ (10). Question 49 was not analysed due to insufficient data. Review of open questions was conducted to provide context for interpretation of participants’ perceptions of, and attitudes toward, inclusive ‘action’ (questions 1–34)

Table 5. Commonalities, correlations and based on Factor loadings and commonalities Varimax rotation with Kaiser normalization rotation for research question 1a, prejudice and discrimination in schools, survey items derived from the Index for Inclusion ($N = 334$).

Item	Communality	Correlation	Cronbach's α
Should a variety of backgrounds and home languages be seen to make a positive contribution to school life?	0.31	0.37	0.72
Staff should understand the origins of discrimination as intolerance to difference.	0.40	0.42	0.71
Attention should be paid to the way intolerance to difference may be interpreted as racism.	0.28	0.42	0.71
Staff should avoid labeling children according to notions of ability.	0.57	0.52	0.70
Staff should avoid contrasting mainstream and 'special needs' students.	0.24	0.36	0.73
Staff should attempt to counter stereotyped attitudes ... people with impairments.	0.32	0.43	0.71
Diversity should be seen as a rich resource to support learning rather than as a problem.	0.41	0.51	0.71
Gay and lesbian people should be valued by the school as part of human diversity.	0.27	0.36	0.72

Table 6. Factor loadings and commonalities based on Varimax rotation with Kaiser normalization rotation for research question 1b, prejudice and discrimination in schools, survey items derived from the Index for Inclusion ($N = 334$).

Item	Communality	Correlation	Cronbach's α
Should building a supportive school community be seen as important as raising academic achievement?	0.55	0.39	0.723
Should attitudes about the limits to inclusion be challenged?	0.35	0.24	0.771
Staff should understand that practices must reflect the diversity of students within the school.	0.63	0.64	0.661
Students should understand that practices must reflect the diversity of students within the school.	0.58	0.57	0.680
Cultures of the school should be equally supportive of boys and girls.	0.49	0.38	0.731
There should be an emphasis on the appreciation of difference rather than conformity to a single 'normality'.	0.46	0.47	0.707
Diversity should be seen as a rich resource to support learning rather than as a problem.	0.59	0.57	0.686

Table 7. Factor loadings and commonalities based on question 2a, recognise barriers to learning, survey items derived from the Index for Inclusion ($N = 336$).

Item	Communality	Correlation	Cronbach's α
Should there be a shared understanding that inclusion is about increasing participation in the school?	0.31	0.53	0.70
Should there be a shared understanding that inclusion is about increasing access to the school?	0.26	0.52	0.70
Should all members of the school take responsibility for making the school more inclusive?	0.50	0.46	0.72
Barriers that arise through differences between school and home cultures should be recognised.	0.47	0.43	0.72
It should be understood that anyone can experience barriers to learning.	0.35	0.42	0.72
Staff should see disability as being created when people with impairments encounter negative attitudes.	0.32	0.41	0.73
Is there recognition that knowledge about their impairments makes only a limited contribution to planning education for students?	0.41	0.37	0.73
The exclusion of students with severe impairments should be understood to reflect limitations of attitude and policy more than practical difficulties.	0.55	0.37	0.74

Table 8. Factor loadings and commonalities based on principal component factor analysis Varimax rotation with Kaiser normalization was used for research question 2b, building inclusive school culture, survey items derived from the Index for Inclusion ($N = 331$).

Item	Communality	Correlation	Cronbach's α
Should students understand that different degrees of conformity to school rules may be expected from different students?	0.37	0.20	0.73
Should teamwork between staff be a model for the collaboration of students?	0.30	0.43	0.68
Should there be positive rituals for welcoming new students and new staff and marking their leaving?	0.47	0.41	0.68
Should all students be encouraged to appreciate the achievements of others?	0.41	0.39	0.69
All staff should be involved in drawing up priorities for school development.	0.47	0.44	0.67
The views of students should make a difference to what happens in school.	0.44	0.49	0.66
There should be a variety of occasions when parents/care givers can discuss the progress of and concerns about, their children.	0.27	0.36	0.69
Staff should understand the roles and responsibilities of the administrators.	0.43	0.43	0.67
The school should involve local communities, such as elderly people in activities in the school.	0.34	0.45	0.67

Table 9. Factor loadings and commonalities based on a principal components factor analysis Varimax rotation with Kaiser normalization survey items related to question 3, confidence in reducing barriers ($N = 257$).

Item	Correlation	Cronbach's α
I feel confident that I can work in schools with inclusive classrooms.	0.58	0.83
I am confident that I can address the behavior management needs of students in an inclusive setting.	0.61	0.83
All students should participate in inclusive settings.	0.42	0.85
I have been taught strategies that will assist me in helping all students learn.	0.51	0.84
I am confident that I will have appropriate resources to be successful in an inclusive setting.	0.64	0.83
I have been prepared to work with all students within an inclusive setting.	0.61	0.83
All students can receive a quality education in an inclusive setting.	0.59	0.83
I am confident that I can successfully collaborate with other teaching professionals in an inclusive setting.	0.54	0.84
I am confident that I can work with students with various learning needs in an inclusive setting.	0.69	0.82
Ensuring that inclusion is successful at my school will be my responsibility.	0.38	0.85

and 'self-efficacy' (questions 35–44) in inclusive settings. Because responses to open questions were intended to provide context for the research questions and not to answer the questions themselves, inter-rater reliability measures were not taken.

Results

In response to question 1a, 'Do participants perceive prejudice in school or recognize prejudice that comes into effect at school?', participants from both institutions reported high levels of positive perceptions of his or her ability to identify institutional discrimination. However, US respondents reported significantly higher levels when comparing agree/completely agree ($p = .004$) and these differences showed greater significance when comparing 'completely agree' only ($p = .001$) (see Figure 1).

No significant differences were found when comparing the institutions on institutional discrimination in terms of past experience or certification areas due to both groups of participants responding at very high positive levels.

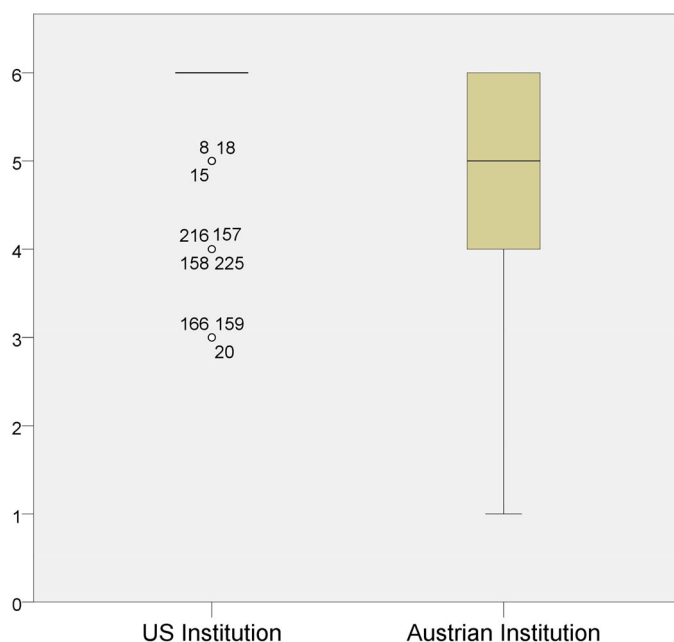


Figure 1. Distribution and difference between institutions in terms of self-awareness pertaining to prejudice in schools (question 1a).

Note $p = .001$.

Participants from both institutions also reported high levels of positively loaded items in response to 1b, identifying factors important to reducing institutional discrimination. However, again a highly significant difference ($p = .001$) was detected as participants at the USA showed a higher level of positive responses (see Figure 2). No other significant differences were detected in comparisons of respondents with and without teaching experience or in terms of certification areas on this question.

Analysis of question 2a ‘recognizing institutional barriers to participation and learning’ showed respondents at the USA reporting significantly more responses to ‘very much’ than participants from Austria ($p = .001$) (see Figure 3).

A significant difference was also found between groups of participants with and without previous school experience. Similarly to reported findings, participants with previous experience reported significantly higher levels of their own competence in recognising institutional barriers than participants with no previous school experience ($p = .05$) (see Figure 4).

Additional significant differences were detected between School Building Leadership Candidates and Early Childhood/Childhood Candidates. School Building Leadership candidates report fewer perceptions of competence in recognising institutional barriers to participation and learning than candidates working toward an Early Childhood/Childhood Certification ($p = .001$) (see Table 10) (Figure 5).

Analysis of the question 2b, ‘Do participants identify factors important in building inclusive school culture?’, did not reveal differences between institutions nor with the participants’ previous experience. All participants reported high perceptions of understanding



Figure 2. Identifying factors important to reducing institutional discrimination by institution (question 1b).
Note $p = .001$.

factors important in building inclusive school culture. However, Early Childhood Candidates reported significantly higher level responses to this item than School Building Leadership respondents ($p = .001$) (see Table 11).

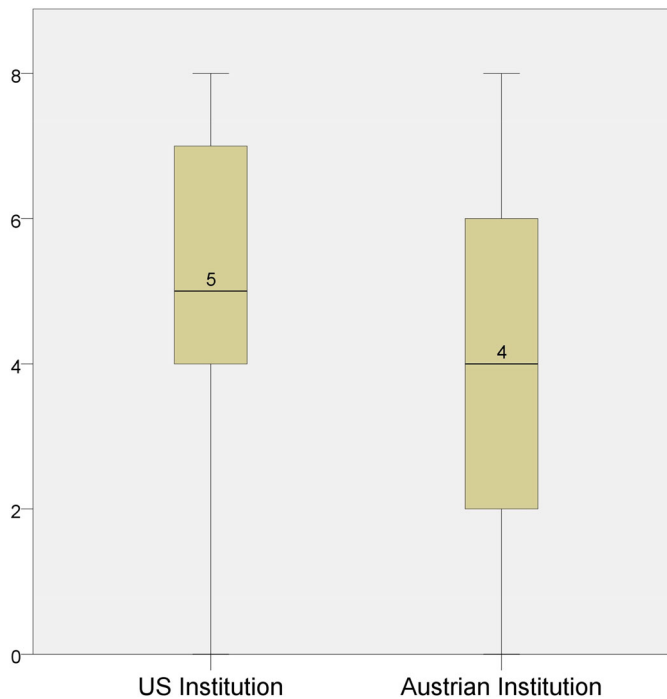


Figure 3. Recognizing institutional barriers by institution (question 2a).
Note $p = .001$.

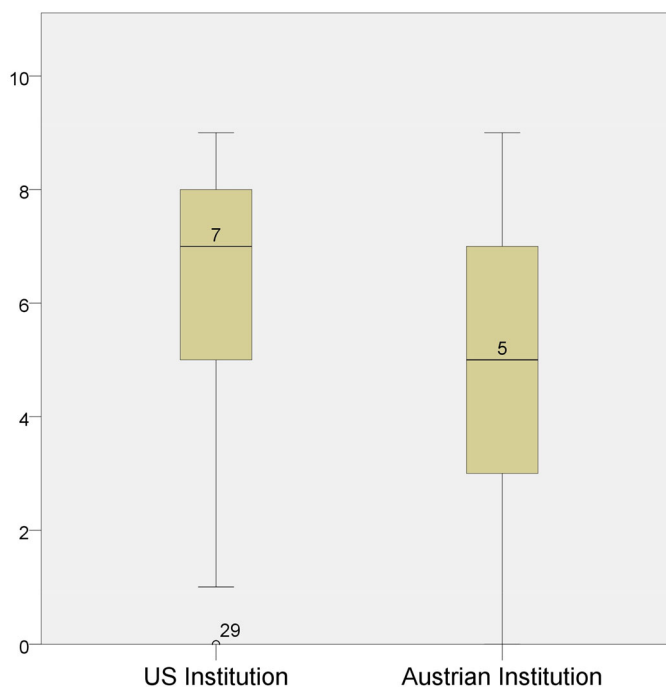


Figure 4. Recognizing institutional barriers in terms of previous experience (question 2b).

Note $p = .001$.

Table 10. Differences in school building leadership candidates and early childhood candidates in recognising institutional barriers to participation and learning.

Certification area	<i>n</i>	Mean	Sum of ranks
Leadership	105	88.25	9266.00
Early Childhood	98	116.73	11440.00
Total	203		
Significance (two-tailed)			0.001

Note: $p = .001$.

Question 3 revealed significant differences between institutions that were identified. In the USA, respondents reported significantly higher self-confidence in their effectiveness when teaching in inclusive settings ($p = .000$) (see Table 12).

Interpretation of the responses from the open questions was not intended to address the research questions but rather to provide the authors with an understanding of respondents' conception of the topic of inclusion. Therefore, we considered responses as a whole and between institutions to provide context for interpretation of our statistical analysis. The open questions appeared at the end of the survey. Of the total number of respondents, 269 (79%) completed the open questions (Austria = 148, USA = 121).

Respondents were asked to *define/describe inclusion*. Nearly 60% of all participants defined/described inclusion in terms of students with disabilities being educated with non-disabled peers or in a general education setting while the remaining responses included a view of inclusion that regarded diversity as a resource. These responses

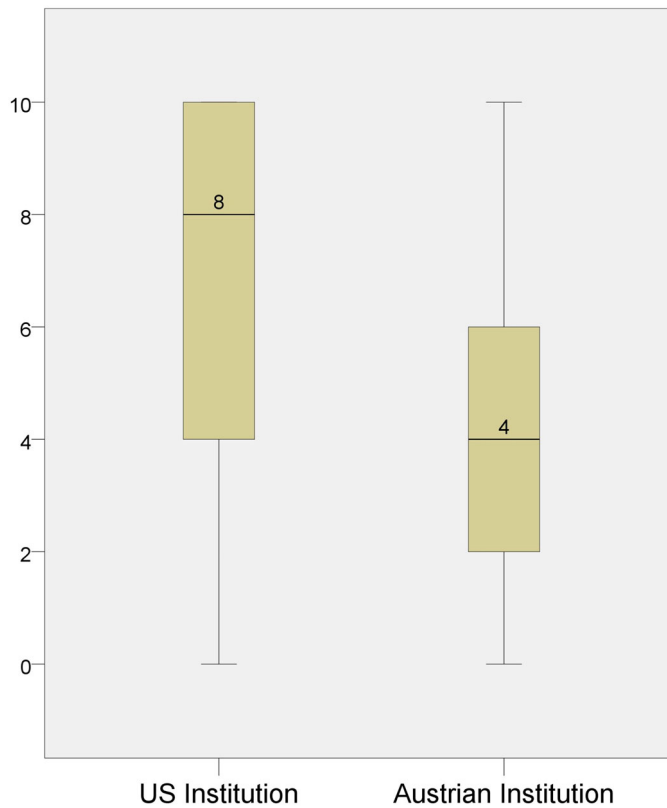


Figure 5. Recognizing institutional barriers in terms of previous experience (question 3).

Note $p = .001$.

Table 11. Differences in early childhood candidates and school building leadership participants' responses in identifying factors important in building inclusive school culture.

Certification area	<i>n</i>	Mean rank	Sum of ranks
Leadership	105	91.27	9583.00
Early Childhood	98	113.50	11123.00
Total	203		
Significance			0.001

Note: $p = .001$.

Table 12. Differences in institution on reports of confidence in reducing barriers to participation, self-efficacy in working in inclusive settings, and perceptions of self-efficacy and confidence in teaching practice.

	Certification area	<i>n</i>	Mean
Reports of self-efficacy	New York	161	146.49
	Baden	102	109.13
	Total	263	
Significance (two-tailed)			0.000

Note: $p = .000$.

further revealed sub-categories of disability-centric responses in terms of school, broader school context and within society. Diversity-based responses included responses based on values and all areas of diversity.

Fifty-eight per cent of participants from the USA responded to this question with a disability-based description and 42% of students responded with a diversity and value-based response. Additionally, 63% of participants from Austria responded with a disability-centred response and 37% of respondents reported a diversity and value-based description.

Participants next responded to the question 'Is inclusion always appropriate? Please explain'. Overall, over 70% of respondents who defined inclusion in terms of disability responded 'no' (Austria = 71%, USA = 76%) and 19% of these participants responded that inclusion was always appropriate (Austria = 29%, USA = 13%).

Of the respondents who described/defined inclusion as diversity based, 58% said that inclusion was not always appropriate (Austria = 50%, USA = 67%) and 38% responded that, yes, inclusion is always appropriate (Austria = 50%, USA = 25%).

Despite clear differences in how respondents supported or did not support inclusion, similar rationales were given. Participants who responded, that inclusion was *not* always appropriate, provided reasons pertaining to the severity of student need/disability, students who present a danger to others, a burden on the teacher or other students and lowering the achievement in the classroom regardless of his or her description of inclusion was disability or diversity centred. Respondents who reported that, *yes*, inclusion was always appropriate, gave explanations stating the benefits of learning from each other and the provision of a broad range of abilities and attitudes from which all could learn.

Further data reduction revealed two clear categories to the question, 'What is the greatest challenge to inclusion?' These were school context and student attribute. Any response that involved the school or classroom setting (curricular demands, bringing down class achievement, etc.) was coded as School Context. Any response that remarked on a student attribute (characteristics of impairment, behaviour, academic, etc.) was coded as a Student Attribute.

Overall, 31% of the participants that reported a disability-centred description of inclusion *and* reported, no, inclusion is not always appropriate, attributed the greatest challenge to inclusion as Student Attribute and 48% of participants ascribed the greatest challenge to inclusion to some aspect of School Context (Austria: student attribute 39%, school context 32%; USA: student attribute 22%, school context 64%). Only 8% of the total number of respondents that reported yes, inclusion is always appropriate, cited Student Attributes as the greatest challenge to inclusion and 13% overall noted School Context (Austria: student attribute 13%, school context 16%; USA: student attribute 3%, school context 11%).

Of the respondents who provided a diversity-centred response, and reported 'no' inclusion is not always appropriate, 17% reported the greatest challenge to inclusion to be student attribute and 38% due to matters of school context (Austria: student attribute 15%, school context 24%; USA: student attribute 19% and school context 52%).

Participants from the USA, who provided a diversity-based definition and said 'yes' inclusion is always appropriate, provided a much lower percentage of student attribute to be the greatest challenge to inclusion and cited school context to be the greatest challenge (14% for both categories). Sixty-one per cent of participants from Austria reported a diversity-based description of inclusion and said 'yes' inclusion is always appropriate. However, responses were considered outside of the categories 'student attribute' and 'school context' and were not coded in these categories. Instead, of respondents' reported

sentiments, ‘teamwork’, ‘respectfulness’ and ‘tolerance’ were the greatest challenges to inclusion.

These findings are striking as they are in stark contrast to the attitudes and sentiments reported in the forced choice section of the survey. Participants from both institutions reported statistically high levels of support for inclusive education with the US participants also reporting statistically high levels for self-efficacy in implementing inclusive practices. However, the majority of candidates from both institutions (58% for the USA and 64% for Austria) stated that inclusion was not always appropriate with the majority of US participants and 50% of Austria participants providing deficit-based reasoning. Finally, all respondents overwhelmingly cited student characteristics as why inclusion was not appropriate, yet school context was considered the greatest barrier. This distinction is notable as it may suggest that respondents’ attitudes reflect more inclusive school practices but that these practices cannot be implemented in the current schooling system.

Discussion

Responses of teacher candidates and School Building Leadership candidates were analysed in terms of differences between institutions, differences in terms of past experience and in terms of certification area. Additionally, responses to open question were examined through data reduction and data display to help contextualise statistical findings. Definitions/descriptions of inclusion were used as a lens to interpret findings from questions 1–44. Investigation of open questions revealed that roughly 60% of participants considered themselves to be competent in identifying prejudice, institutional discrimination and barriers to participation and learning with respect to people (students) with disabilities, and about 40% considered themselves skilled at recognising barriers, prejudice and discrimination with respect to all areas of diversity; yet, when asked if inclusion is always appropriate, more than 70% of respondents who view inclusion through a disability lens said ‘no’ and more than 60% of participants who view inclusion through a diversity lens reported ‘no’. Interestingly, US participants who reported the highest levels of awareness of barriers, prejudice and institutional racism responded that inclusion was not always appropriate in higher numbers than participants from Austria. This finding is an important reminder that despite reports of inclusive sentiments on questionnaires, there may be a contradiction in attitudes and practice.

Further evidence of this contradiction may be observed within this investigation as a review of participants’ explanations to the question why inclusion is/is not always appropriate revealed student characteristics to be a predominant theme across all respondents. Attributes such as severity of student need/disability, students who present a danger to others, students who are a burden on the teacher or other students and fear of lowering the achievement in the classroom were cited. It is again important to note that even when definitions/descriptions of inclusion did not include notions of students with disabilities within a school setting (diversity group), the same characteristics above were provided thus indicating a similarly narrowing of the breadth of understanding of inclusion and contradiction of positive attitudes toward inclusion in praxis.

Conversely, when identifying challenges to inclusion participants from the USA reported school context as a greater barrier to inclusion rather than the student attributes that they had previously assigned as the reason that inclusion was not always appropriate.

Similarly, Austria participants who used disability as a lens for viewing inclusion viewed school context equally as important as student characteristics. However, respondents from Austria who described inclusion through a diversity lens, and noted that inclusion was always appropriate, considered ensuring teamwork, respectfulness and tolerance as the greatest challenges. These results specify the importance of examining the impact of school policies and culture on the implementation of inclusive values.

All respondents reported high levels of confidence that they could reduce barriers to participation and US respondents reported higher self-confidence in their teaching abilities in inclusion settings; however, descriptions of the greatest challenge to inclusion revealed pervasive notions of a deficit model of inclusion as fitting one child to existing mainstream settings.

Experience level

Respondents with previous experience reported that they were able to identify factors important to reducing institutional discrimination and viewed their own competence in recognising institutional barriers at significantly higher levels than participants with no previous school experience. These data contribute to current findings that experience in a school setting can promote positive attitudes toward inclusion by providing teachers and school building leaders the ability to recognise school-wide impediments to inclusion (Boer, Pijl, and Minnaert 2011; Urton, Wilbert, and Hennemann 2014a, 2014b). However, the present findings offer a caution to our understanding of the consistency of reported attitudes as they pertain to praxis.

Certification area

Although analysis was conducted between all certification areas, significant differences were noted between only two certification areas: Early Childhood/Childhood and School Building Leadership. Respondents working toward a School Building Leadership degree reported lower scores related to factors important to reducing institutional discrimination and recognising institutional barriers to participation and learning than candidates working toward an Early Childhood Certification.

These data are consistent with the current literature (Price 2012; Urton, Wilbert, and Hennemann 2014a, 2014b) and may indicate that course work experienced by school building leaders may be contributing to different perceptions of how the school management (regulations, school culture) contributes to institutional discrimination and exclusion.

Also, Early Childhood/Childhood candidates reported significantly higher-level responses than School Building Leadership candidates in identifying factors important in building inclusive school culture.

Research limitations

Candidates in this study were enrolled in different degree programmes during this study; however, because Austria did not offer a master's level degree at the time of this study, the course content and expectations were equivalent. Furthermore, data between the institutions show similar tendencies signifying confidence in our findings.

Additionally, there are potential limitations with respect to the survey instrument. There are limited reports (Braunsteiner & Germany, 2011) of using the Index for Inclusion for this type of research, even though the Index provides questionnaires on indicators considering different views of respondents (Booth and Ainscow 2011); however, factor analysis of experimental questions using this instrument revealed acceptable to good reliability.

Additionally, response choices for questions were inconsistent for the entire survey and items 35–44 contained only three choices and an option of ‘I don’t know’ requiring non-parametric tests with lower power to be used.

Finally, respondents from the USA frequently responded to survey questions at the uppermost scale with little variability, thus affecting the variance between institutions. This pattern may be a reflection of responding due to perceptions of expectations within the institutions and may not reflect the actual level of attitudes toward inclusion.

Conclusion

Facing increasing diversity in schools we must prepare students, teachers and school leaders (principals) to create cultures of inclusion and ‘the formation and modification of teacher attitudes are important areas of education research’ (Weisman and Garzia 2002 as cited in European Agency for Development in Special Needs Education 2010) to that end. The findings of this study are useful when considering teacher and school building leadership preparation programmes as our data show that within reports of positive attitudes toward inclusion, conflicts exist in responses that constrain and create barriers to inclusion in terms of praxis. Additional research is needed to understand the factors impacting this bridge between positive attitudes and practical application of inclusive practices.

Disclosure statement

No potential conflict of interest was reported by the authors.

Notes on contributors

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Appendix

Items included in the survey: "Supporting Inclusive Schooling: How do different stakeholders support inclusive schooling?"

1. Should every student feel that they attend a school in which the highest achievements are possible?
2. Should students understand that different degrees of conformity to school rules may be expected from different students?
3. Should teamwork between staff be a model for the collaboration of students?
4. Should there be positive rituals for welcoming new students and new staff and marking their leaving?
5. Should all students be encouraged to appreciate the achievements of others?
6. Should building a supportive school community be seen as important as raising academic achievement?
7. Should attitudes about the limits to inclusion be challenged?
8. Should there be a shared understanding that inclusion is about increasing participation in the school?
9. Should there be a shared understanding that inclusion is about increasing access to the school?
10. Should all members of the school take responsibility for making the school more inclusive?
11. Should a variety of backgrounds and home languages be seen to make a positive contribution to school life?
12. Staff should understand the origins of discrimination as intolerance to difference.
13. Attention should be paid to the way intolerance to difference may be interpreted as racism.
14. It should be recognized that all cultures encompass a range of views and degrees of observance.
15. Staff should avoid seeing barriers to learning and participation as produced by deficiencies or impairments in students.
16. Staff should understand that practices must reflect the diversity of students within the school.
17. Students should understand that practices must reflect the diversity of students within the school.
18. Barriers that arise through differences between school and home cultures should be recognized.
19. It should be understood that anyone can experience barriers to learning.
20. Staff should avoid labeling children according to notions of ability.
21. Staff should avoid contrasting mainstream and 'special needs' students.
22. Staff should attempt to counter stereotyped attitudes towards people with impairments when they are seen, for example, as objects of pity or heroic battlers against adversity.
23. Cultures of the school should be equally supportive of boys and girls.
24. There should be an emphasis on the appreciation of difference rather than conformity to a single 'normality'.
25. Diversity should be seen as a rich resource to support learning rather than as a problem.
26. Gay and lesbian people should be valued by the school as part of human diversity.
27. Staff should see disability as being created when people with impairments encounter negative attitudes.
28. There should recognize that knowledge about their impairments makes a limited contribution to planning education for students?
29. The exclusion of students with severe impairments should be understood to reflect limitations of attitude and policy more than practical difficulties.
30. All staff should be involved in drawing up priorities for school development.
31. The views of students should make a difference to what happens in school.

32. There should be a variety of occasions when parents/care givers can discuss the progress of and concerns about, their children.
33. Staff should understand the roles and responsibilities of the governors (administrators).
34. The school should involve local communities, such as elderly people in activities in the school.
35. I feel confident that I can work in schools with inclusive classrooms.
36. I am confident that I can address the behavior management needs of students in an inclusive setting.
37. All students should participate in inclusive settings.
38. I have been taught strategies that will assist me in helping all students learn.
39. I am confident that I will have appropriate resources to be successful in an inclusive setting.
40. I have been prepared to work with all students within an inclusive setting.
41. All students can receive a quality education in an inclusive setting.
42. I am confident that I can successfully collaborate with other teaching professionals in an inclusive setting.
43. I am confident that I can work with students with various learning needs in an inclusive setting.
44. Ensuring that inclusion is successful at my school will be my responsibility.
45. Define/describe inclusion.
46. Is inclusion always appropriate? Please explain.
47. What is the greatest challenge to inclusion?
48. Please describe your understanding of the UN-Convention on the Rights of Persons with Disabilities (Article 24).