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Promoting students' interest through culturally sensitive curricula in higher education

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Abstract

Previous studies have emphasized culturally sensitive curricula in the context of enhancing minoritized students' education. We examined the relationship between second-year higher education students' perceptions of the cultural sensitivity of their curriculum and both majoritized and minoritized students' interest in their course. A total of 286 (228 F) students rated the cultural sensitivity of their curriculum on six scales using a revised version of the Culturally Sensitive Curricula Scales (CSCS-R), the perceived quality of their relationships with teachers, and their interest. The CSCS-R widened the construct with two new scales and showed better reliability. Ethnic minority students ($n=99$) perceived their curriculum as less culturally sensitive than White students ($n=182$), corroborating previous findings. Black students perceived their curriculum as less culturally sensitive than Asian students. There were no significant differences between ethnic minority and White students on interest or perceived quality of relationships with teachers. Five dimensions of cultural sensitivity (*Diversity Represented*, *Positive Depictions*, *Challenge Power*, *Inclusive Classroom Interactions*, *Culturally Sensitive Assessments*) and perceived quality of relationships with teachers predicted interest. Ethnicity did not. Ensuring curricula and assessments represent diversity positively, challenge power and are inclusive may support students' interest while reflecting an increasingly diverse society.

Keywords Curriculum · Cultural sensitivity · Student engagement · Subject interest · Higher education

Introduction

In a rapidly changing world, educators struggle to attract and keep their students' interest and engagement. We know that curricula must be relevant to students to stimulate and sustain their interest. But *how* to make curricula relevant isn't always clear to educators. We address this challenge while adding evidence to calls to create curricula that reflect the plurality of modern society.

Extended author information available on the last page of the article

Across the Global North, societies are becoming more culturally diverse through immigration. Meanwhile, many highly populous Global South countries, such as Brazil, India, and Mexico, have long been culturally, ethnically, religiously, and socially diverse. As higher education (HE) systems become massified, student populations also become increasingly diverse, with increasing numbers of historically ethnically minoritized¹ students enrolling, though often not supported to achieve at equivalent levels (Salmi & D’Addio, 2021). It follows, then, that creating more culturally sensitive curricula may help ensure that the curriculum is personally meaningful and relevant to ethnically minoritized students, raising their interest (Thomas & Quinlan, 2023) and, potentially, their achievement.

Diverse, culturally sensitive curricula may also interest ethnically majoritized students (Thomas & Quinlan, 2021). HE students are preparing for various professional roles in which they will serve a diverse clientele and operate within or attempt to redress pervasive national and global inequalities (United Nations, 2015). As such, future professionals need curricula that promote awareness of and sensitivity to diversity and question policies that exclude or marginalize some groups (Arday et al., 2021; Ladson-Billings, 1995; Ladson-Billings & Tate, 1995). Globally, there is a move toward making curricula and pedagogy more culturally sensitive, diversified, or decolonized (Peters, 2018; Shahjahan et al., 2022).

In this study, we contribute methodologically by revising a ground-breaking measure of culturally sensitive curricula (Thomas & Quinlan, 2023) that is needed to evaluate curricular reform. We also make a significant empirical contribution by determining the extent to which HE students, particularly those in professional education, perceive their curricula as culturally sensitive and the impact of cultural sensitivity on their interest in their course. Theoretically, we advance understanding of factors that contribute to promoting interest in HE students. Finally, we sought examples of culturally sensitive curricula that students have experienced to support educators in adapting their curricula. This novel evidence enables richer guidance to HE teachers about how to design instruction that engages student interest while also redressing educational inequalities.

Culturally sensitive curricula

Thomas and Quinlan (2023) conceptualized culturally sensitive curricula as those in which attitudes, teaching methods and practice, teaching materials, curriculum, and theories relate to, affirm, and respect diverse cultures, identities, histories, and contexts. They operationalized this definition in their Culturally Sensitive Curricula Scales (CSCS), a 19-item, 4-point Likert scale instrument that included four conceptually distinct but related factors: *Diversity Represented* (eight items; $\alpha=0.87$); *Positive Portrayals* (three items; $\alpha=0.81$); *Challenge Power* (five items; $\alpha=0.88$); and *Inclusive Classroom Interactions* (three items; $\alpha=0.83$). *Diversity Represented* referred to whether ethnically diverse peoples’ experiences and perspectives are represented (Bryan-Gooden et al., 2019). *Positive Portrayals*

¹ The terms majoritized and minoritized emphasize the social and historical role of power in excluding certain groups and creating socio-economic disparities. Majority and minority refer only to relative numbers within a population, which can be misleading, especially from a global perspective. The same racial or ethnic group can be majoritized within one national context and minoritized in another. In England, where this study is set, Black people of various ethnic/national heritages, Asian people of various ethnic/national backgrounds, and some minority ethnic groups such as Arabs are both ethnic minorities (numerically) and ethnically minoritized (socially). The high-level census categories on which these groupings are based are contested, as they conflate race and ethnicity, obscure differences within groups, and reify White as privileged in relation to others.

captured the extent to which ethnic minorities are represented in stereotyped or negative ways (Bryan-Gooden et al., 2019). *Challenge Power* referred to encouraging students to develop critical consciousness (Ladson-Billings, 1995; Ladson-Billings & Tate, 1995). *Inclusive Classroom Interactions* focused on classroom interactions between teachers and students and among peers (Holgate, 2016).

Focusing specifically on curricula, the CSCS also extended and elaborated the simple, three-survey item culturally relevant knowledge indicator in Museus' culturally engaging campus model (CECE Model) (Museus, 2014). Based on a review of American HE literature, Museus (2014) posited that culturally engaging campus environments, external influences, and individual influences contribute to HE outcomes. Culturally engaging campus environments, defined by nine indicators, were hypothesized to be particularly important because they act on individual influences such as students' sense of belonging, academic motivation, and performance to determine persistence and completion (Museus, 2014; Museus & Shiroma, 2022). In sum, Museus (2014) argued that campus cultures need to offer culturally diverse knowledge and validate a variety of cultures through formal and informal interactions, policies, and practices to support the success of ethnically and racially diverse students. More research is needed to connect dimensions of culturally engaging campuses with students' motivation, such as interest in their subject (Museus & Shiroma, 2022).

Thomas and Quinlan (2023) demonstrated how ethnically minoritized students perceived the curriculum as less culturally sensitive than their majoritized peers, which partially explained minoritized students' lower interest in the subject. Student movements calling for curricular reform (Peters, 2018) and qualitative research highlight how existing, culturally insensitive HE curricula alienate and marginalize already minoritized students (e.g. Harper et al., 2018; Meda, 2020; Thomas & Jivraj, 2020). These effects arise through the erasure of contributions by racially and/or ethnically minoritized people; through negative and stereotyped portrayals; through the legitimization of policies, practices, and paradigms that perpetuate social injustices; and through micro-aggressions and exclusion in classroom interactions.

In this study, we explore whether culturally sensitive curricula were associated with higher student interest for both minoritized and majoritized students. While Thomas and Quinlan (2023) found that some CSCS dimensions (*Diversity Represented* and *Challenge Power*) are significant predictors of interest even when controlling for ethnicity, the authors did not emphasize that message. Thus, we know little about if and how culturally sensitive curricula may affect all students' interest. Filling this gap is important because, following Derrick Bell's (1980) interest convergence theory analyses, educational policies and practices are more likely to be reformed in ways that benefit minoritized students if doing so also benefits majoritized students.

We also make a vital methodological contribution by revising Thomas and Quinlan's (2023) CSCS. First, the original scale called 'Positive Portrayals' was misnamed. Because it reverse-scored statements describing negative and stereotyped portrayals, the scale is more accurately described as 'Absence of Positive Portrayals'. But the absence of a negative is not the same as a positive. Therefore, we added a new scale describing truly positive depictions and renamed the items previously labelled 'Positive Portrayals' as *Negative Portrayals*. This innovation also helps address weaknesses identified by Museus and Shiroma (2022) in relation to interpreting findings from a related, but different, survey of the culturally relevant knowledge dimension of the CECE Model (Museus, 2014).

Second, the original CSCS did not explicitly address assessments. Although assessments are broadly a part of the curriculum, students may not have them in mind unless

specifically prompted. Gathering data about assessments is important to guide instructional design. Assessments are potentially the only mandatory part of the curriculum and are most proximal to students' attainment. Thus, we piloted a scale focused on the cultural sensitivity of assessments.

Third, we shifted the original 4-point scale to a 6-point scale to improve reliability. Finally, we piloted an open-ended question seeking students' examples of experiences with culturally sensitive curricula. The open-ended question was intended to help assess the completeness of the constructs included in the CSCS-R from students' perspectives, better understand students' interpretation of the concept of culturally sensitive curricula, and, potentially, feed forward concrete examples to participating teachers and others in those disciplines. These four methodological enhancements are significant because the CSCS is the only instrument available to enable robust evaluation of curricular diversification.

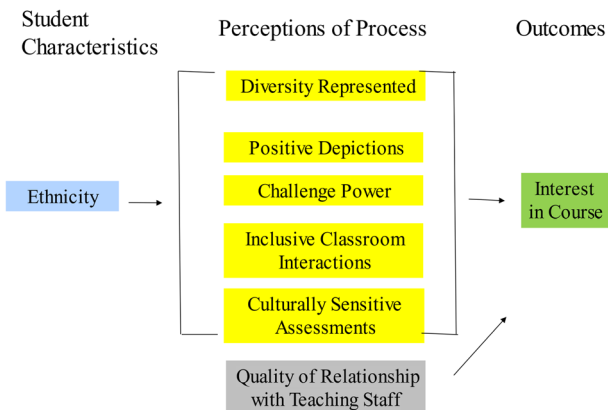
Conceptual framework: interest theory

We situate our study in interest theory (Renninger & Hidi, 2016, 2022). Unlike Bell's (1980) use of the term interest as a stake, advantage, or benefit, interest here refers both to a psychological state of individuals during engagement with some object (e.g. an academic subject) and the predisposition to meaningfully re-engage with particular content over time. Unlike motivation or engagement, which can be instrumental rather than personally meaningful, interest is necessarily associated with meaning-making and deeper understanding (Renninger & Hidi, 2016).

Interest motivates students toward many positive learning behaviours that lead to higher academic achievement and influence career decision-making and success (Harter et al., 2016; Jansen et al., 2016; Nye et al., 2012; Quinlan & Renninger, 2022; Renninger & Hidi, 2022; Sansone et al., 2019). Interest is also inherently rewarding (Gottlieb et al., 2013); students seek it both in their choice of university programs (Vulperhorst et al., 2020) and their subsequent careers (Gallup, 2019). In short, interest is associated with both positive experiences and outcomes of education and work; thus, it is important to understand how to promote it.

Interest can grow or wane depending on whether the environment supports it (Renninger & Hidi, 2016, 2022). Learners in the early stages of interest development need more support, such as from teachers or parents. Learners with more well-developed interests engage with an object independently and voluntarily and with deeper knowledge (Renninger & Hidi, 2016, 2022). This conceptualization of interest as a variable that develops makes it valuable when designing instruction and learning environments.

Therefore, much research on interest has focused on factors that stimulate students' interest. Quinlan (2019), drawing on earlier research in primary, secondary, and tertiary education, analysed several instructional variables together to determine which were most important in triggering students' interest in first-year HE lectures. First, if students perceived the material as too difficult, it negatively influenced their interest in that lecture. She identified five further instructional factors associated with higher student interest in the following order of magnitude of effect: perceptions of the teacher, cognitive activation, utility value (relevance of the information), cognitive incongruity, and novelty. A scoping review of the literature on interest in HE corroborated these as key factors (Guo & Fryer, 2022). These factors can be considered basic mechanisms through which students' interest is stimulated and sustained.

Fig. 1 Conceptual framework for this study

There are many ways educators might design instruction consistent with one or more of these mechanisms. The present study contributes theoretically by expanding our understanding of the instructional design features that may support HE students' interest. We aim to create a richer picture of the environmental antecedents of interest to enhance HE teaching and learning.

We propose that five of the six CSCS-R dimensions will support students' interest (Fig. 1) because we assume they operate through Quinlan's (2019) mechanisms. Culturally sensitive curricula would be perceived as relevant insofar as students are preparing for work and service in a diverse society, as argued above. Short relevance interventions embedded in modules have promoted interest (Harackiewicz & Priniski, 2018; Harackiewicz et al., 2016; Hecht et al., 2021; Hulleman et al., 2010). HE curricula specifically designed for relevance are also associated with higher interest (Crouch et al., 2013; Dohn et al., 2009; Rotgans & Schmidt, 2011). By challenging power and presenting positive depictions of racially minoritized people (rather than stereotyped or deficit-based perspectives), culturally sensitive curricula may also provide cognitive activation, cognitive incongruity, and novelty. Particularly enthusiastic, caring teachers may also work harder to create culturally sensitive curricula. In this study, we do not attempt to disentangle which of those more general mechanisms account for differences in interest, other than to separate the curricula from the students' perceptions of their teacher.

In Quinlan's (2019) analysis, students' perception of the teacher as knowledgeable, accessible, approachable, and friendly was the instructional feature with the greatest impact on students' interest, consistent with other interest research in HE (e.g. Marjoribanks & Mboya, 2004; Rotgans & Schmidt, 2011). Thus, we expect that students' perceptions of the quality of their relationships with teachers will be positively associated with interest.

Whether teachers foster positive relations with their students can be seen as a general measure of good teaching. Teachers who are most enthusiastic about their role may also make the effort to create more culturally sensitive curricula. To be sure that the effects of culturally sensitive curricula were not *just* due to enthusiastic teachers who put in extra effort on their teaching or cultivated particularly strong relationships with students, we added a measure of perceived quality of relationships with teaching staff, as shown in Fig. 1.

Research questions and hypotheses

RQ1. To what extent did students perceive their curricula as culturally sensitive? We hypothesized that ethnic minority students would perceive the curricula as less culturally sensitive than White majority students (H1.1). We further hypothesized that Black students would perceive the curriculum as less culturally sensitive than Asian students (H1.2).

RQ2. What is the relationship between the cultural sensitivity of the curricula and students' interest in their program? We hypothesized that students' perceptions of the cultural sensitivity of the curricula (H2.1) and the perceived quality of the relationships with teachers would predict interest (H2.2).

RQ3. What experiences of culturally sensitive educational practices do students offer spontaneously as examples of culturally sensitive educational practices?

Methods

The study gained ethics approval from the first author's institution (CSHE-2122-STAFF-8) and was subsequently approved by ethics boards at several of the other participating institutions (University of Derby, ETH2122-2715; University of Law, EX001; Sheffield Hallam University, ER41743553; and exempted or via chair's action at remaining participating institutions).

Participants

In a cross-sectional design, we surveyed second-year undergraduate students in seven universities in different geographic regions of England ($N=286$; 228 female; 46 male; 182 White; 99 ethnic minority; 57% 18–22 years old; 83% < 33 years old). Participating universities were part of a wider network that was beginning initiatives to create more culturally sensitive curricula and wanted to establish baseline data that could raise academics' awareness and stimulate reform. Each university selected one or two bachelor's degree courses/programs (hereafter 'courses') for participation in the study based on interest from course leaders. Most students (69%) were in professional preparation courses in various female-dominated social and health sciences fields (Table 1). Students were invited to participate in the 15-min survey via email and by allowing space during a class session for students to complete it.

Measures

The survey included the following measures:

Culturally sensitive curricula scales-revised (CSCS-R) To assess students' perceptions of the cultural sensitivity of the curricula, we extended Thomas and Quinlan's (2023) CSCS scales to include four items related to *Positive Depictions* and three items related to culturally sensitive assessments, creating 27 items which students rated on a 6-point scale from strongly disagree (1) to strongly agree (6). Students were instructed to 'rate the extent to

Table 1 Participants by degree course

Program	N	%
Childhood/early childhood studies	12	4%
Education	49	17%
Law	42	15%
Nursing	72	25%
Other	6	2%
Politics and/or international relations	22	8%
Psychology	48	17%
Social work	35	12%

which you think the statement is true of the curriculum of this degree course. By curriculum we mean the content and how it is taught. By “course”, we mean the series of modules or subjects in the degree programme you are studying’. After ensuring appropriate statistical assumptions were met, items were subject to an exploratory factor analysis in SPSS version 27 using principal axis factoring with oblique rotation (direct oblimin), specifying a six-factor solution.

Five factors had eigenvalues above 1, which is the usual recommended cut-off point (SM Table 1). However, a sixth factor nearly met the threshold (0.96), and the loadings of the items in the six-factor solution conformed to our original theory, so we retained a six-factor solution. Table 2 shows items loaded unambiguously on the scales anticipated from Thomas and Quinlan (2023), with pattern coefficients above the usual threshold of 0.30. There was only one exception; item 20 under *Challenge Power* loaded more heavily on the new *Culturally Sensitive Assessment* than its previous and anticipated place under *Challenge Power*. That item was different from the other *Challenge Power* items in that it focused on students taking action. For students in practical programs such as nursing and education, taking action may be associated with assessment requirements. We retained it in *Challenge Power*, where the scale reliability was stronger when retaining it than when omitting it. Six factors explained a total of 78% of the variance (SM Table 1). The reliability of each of the resulting six scales was very good, with Cronbach alphas all above 0.86. The reliability of the revised scales with this study population was typically slightly stronger than in the original CSCS study (Thomas & Quinlan, 2023), likely due to using a six-point scale instead of a four-point scale.

The final scales were *Diversity Represented* (seven items; $\alpha=0.92$); *Negative Portrayals* (three items; $\alpha=0.92$); *Positive Depictions* (four items; $\alpha=0.86$); *Challenging Power* (five items; $\alpha=0.90$); *Inclusive Classroom Interactions* (three items; $\alpha=0.87$); *Culturally Sensitive Assessments* (three items; $\alpha=0.89$); and one open-ended question *Culturally sensitive example of practice*, which was analysed separately. Scale scores are the average of the items’ scores. As the six scales were all correlated, we ran an initial analysis with an overall average across the quantitative scales called *CSCS-R Overall* before running separate regression analyses with each of the six scales.

The 28th item of the CSCS-R asked participants:

We want to share best practices in culturally sensitive education with your teachers. Culturally sensitive education means that attitudes, teaching methods and practice, teaching and assessment materials, curriculum, and theories relate to your cul-

Table 2 Pattern matrix for exploratory factor analysis 6-factor solution of revised Culturally Sensitive Curricula Scales

Item	Factor					
	1	2	3	4	5	6
NEW: Culturally Sensitive Assessment (four items; $\alpha = .89$)						
26. On assessments, students are encouraged to connect the subject to diverse cultural experiences, perspectives, histories, or contexts	.98	-.00	-.07	.08	.01	.04
24. Assessments allow students to connect the subject with diverse cultural experiences, perspectives, histories or contexts	.76	-.01	.09	-.05	-.00	-.13
25. Assessments allow students choices about the topics/content they can address	.71	.00	.07	-.10	-.02	-.07
27. Assessments address topics/issues that are of interest to people of colour and their communities	.67	.06	.09	.16	-.05	-.01
Negative Portrayals (four items; $\alpha = .92$)						
9. People of colour are usually considered the problem when interpersonal conflicts are presented	-.03	.92	-.02	.05	.12	-.11
11. People of colour are presented in negative ways	.02	.90	-.01	-.06	-.13	.10
8. People of colour are usually considered the problem when social problems (e.g. crime, violence) are presented	.07	.88	-.07	.08	.14	-.10
10. People of colour are presented in stereotyped ways	-.06	.83	.12	-.11	-.16	.09
Diversity Represented (seven items; $\alpha = .92$)						
3. Diverse ethnicities and nationalities are portrayed	.10	-.04	.90	-.04	-.04	.09
1. The curriculum features people from diverse backgrounds	-.12	-.02	.88	-.06	-.07	-.06
5. People of diverse ethnicities are represented as researchers or professionals, not just as participants in research, clients, consumers, service users, etc	.04	-.01	.81	.04	.20	-.04
2. The curriculum references different ethnic and cultural traditions, languages, religions and/or clothing	.02	.01	.75	.08	-.12	.04
7. The curriculum addresses topics that are of concern to people of colour and their communities	.12	.08	.72	.07	-.03	.44
6. The curriculum respects that different cultures may have different understandings, skills and/or philosophies	.10	.00	.70	.03	.06	-.13
4. Diverse family structures (i.e. single parents, adopted or fostered children, same-sex parents, other relatives living with family, etc.) are portrayed	-.01	.04	.70	.10	-.06	-.08

Table 2 (continued)

Item	Factor					
	1	2	3	4	5	6
NEW: Positive Depictions (four items; $\alpha = .86$)						
14. People of diverse ethnicities are presented as having high income, education, or power	.01	.03	-.09	.88	-.04	.01
15. People of diverse ethnicities are presented in terms of their strengths, talents or knowledge, rather than their perceived flaws	-.02	-.09	-.00	.82	-.11	-.09
12. People of colour are presented in positions of leadership or power						
13. People of colour are presented in positive ways	.02	.09	.15	.63	.01	.03
Challenge Power (five items; $\alpha = .90$)						
17. The curriculum encourages students to challenge existing power structures in society	.08	.02	.00	.06	-.78	-.16
18. The curriculum encourages students to critique unearned privilege	.29	.08	.09	.14	-.57	-.03
16. The curriculum raises critical questions about power and/or privilege that are usually taken for granted	-.04	.05	.14	.31	-.43	-.15
19. The curriculum encourages students to connect learning to social, political or environmental concerns	.23	-.07	.11	.03	-.42	-.33
20. The curriculum encourages students to take actions that fight inequity or promote equity	.44	-.07	.14	-.02	-.35	-.18
Inclusive Classroom Interactions (three items; $\alpha = .87$)						
22. My instructors encourage students to be mindful of other students' perspectives	-.03	.05	.05	.03	-.01	-.96
23. My instructors encourage students to respect other students' perspectives	.04	.02	.04	-.02	-.00	-.89
21. My instructors make an effort to pronounce everyone's name correctly	.16	-.02	-.04	.05	-.13	-.54

Extraction method, principal axis factoring

Rotation method, Oblimin with Kaiser normalization

^aRotation converged in eight iterations

ture, histories, identity, and context. Taken together, the questions you just answered describe a culturally sensitive education. Please briefly describe an experience on your course that was most culturally sensitive.

One hundred seventeen (117) students responded substantively to this question. Responses ranged from 5 to 139 words. The total dataset consisted of 3158 words. To address RQ3, we content analysed these responses by grouping them thematically in relation to the CSCS-R scales. More details of the coding appear in the ‘**Results**’ section.

Interest We slightly adapted Quinlan’s (2019) individual interest scale. Students rated ten items on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree) in relation to the overall course. The scores for the ten items were averaged to create the *Interest* score. The scale had good reliability ($\alpha=0.88$) and was consistent with Renninger and Hidi’s (2016, p. 60) defining characteristics, ‘A person who is interested in something is likely to re-engage with it frequently and to do so with increasing depth of understanding, voluntarily, and independently’. Students rated their emotional interest in the field (e.g. ‘I am curious about the content of this course’); understanding (e.g. ‘I am quite good in this course’); and frequent, independent, and voluntary engagement (e.g. ‘Regularly I find myself thinking about ideas from this course when I’m doing other things’).

Quality of relationships with teaching staff (QRTS) Drawing on Lundberg and Schreiner’s (2004) scales, we assessed whether students found their teachers approachable, understanding, and encouraging (three items; $\alpha=0.91$) on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). QRTS is an average of the three items.

Demographics Students reported university, course, ethnicity, gender, and age. We used the high-level response choices to the ‘ethnicity’ question used by the Higher Education Statistics Agency in England: ‘White; Asian or Asian British; Black (e.g. Black African, Black Caribbean, or Black British); Mixed or multiple ethnic groups; Other ethnic group (e.g. Arab); Prefer not to say’. Following government precedent, we coded those who self-selected as Black, Asian, Mixed, or Other as ethnic minorities and those who self-selected White as ‘White’, treating ‘prefer not to say’ as missing.

Results

RQ1

There were no significant differences on the *CSCS-R Overall* by university, $F(7, 278)=1.542$, $p=0.16$, or by course, $F(7, 274)=2.38$, $p=0.06$. There were also no significant differences on students’ *Interest* by university, $F(7, 274)=1.68$, $p=0.11$, or by course, $F(7, 273)=0.942$, $p=0.47$. Thus, we felt confident in aggregating students across universities and courses.

For each CSCS-R scale, students tended to ‘slightly agree’ to ‘agree’ that their curriculum was culturally sensitive. On average, they rated *Inclusive Classroom Interactions* highest and statements in *Positive Depictions* lowest. Black, Asian, and other minority ethnic students rated their curricula as significantly less culturally sensitive than White students on five of the six CSCS-R scales (Table 3), confirming H1.1. *Challenge Power* trended in the same direction, but differences were not significant. We disaggregated

Table 3 Descriptive statistics for the study variables comparing ethnically minoritized (EM) to white students

Variable	EM mean (SD)	White mean (SD)	Mean dif	<i>t</i>	Cohen's <i>d</i>
Diversity Represented	4.29 (1.13)	4.70 (1.00)	-.41	-3.01**	-.39
Negative Portrayals	3.35 (1.51)	2.39 (1.41)	.96	5.30***	.67
Positive Depictions	3.55 (1.15)	4.17 (1.11)	-.62	-4.33***	-.55
Challenge Power	4.26 (1.30)	4.55 (1.12)	-.30	-1.91	-.25
Inclusive Classroom Interactions	4.83 (1.26)	5.29 (.89)	-.46	-3.20**	-.44
Culturally Sensitive Assessments	4.11 (1.28)	4.56 (1.12)	-.45	-2.91**	-.38
CSCS-R Overall ⁺	4.12 (.81)	4.63 (.76)	-.51	5.20***	-.65
Interest	3.85 (.56)	3.91 (.63)	-.06	-.77	-.10
Quality of Relationships w/Teaching Staff	3.26 (.78)	3.26 (.74)	-.12	-1.23	-.16

*** $p < .001$, ** $p < .01$, * $p < .05$ (two tailed)

⁺ CSCS-R Overall reverses Negative Portrayals so that all scales are in the same direction, with higher scores demonstrating higher cultural sensitivity

Cohen's $d < .2$ small effect size; $d = .5$ medium effect size; $d > .8$ large effect size

Table 4 Descriptive statistics for the study variables comparing Black to Asian students

Variable	Black (SD)	Asian mean (SD)	Mean Dif	<i>t</i>	Cohen's <i>d</i>
Diversity Represented	4.07 (1.22)	4.37 (1.15)	-.30	1.07	.26
Negative Portrayals	4.10 (1.30)	3.01 (1.38)	1.09	-3.36**	.81
Positive Depictions	3.01 (.93)	3.77 (1.13)	-.76	2.97**	.71
Challenge Power	4.05 (1.18)	4.45 (1.28)	-.40	1.34	.32
Inclusive Classroom Interactions	4.57 (1.51)	5.01 (1.05)	-.44	1.48	.35
Culturally Sensitive Assessments	3.82 (1.37)	4.28 (1.14)	-.47	1.60	.38
CSCS-R Overall ⁺	3.74 (.83)	4.33 (.76)	-.59	3.18**	.75
Interest	3.81 (.72)	3.87 (.44)	-.06	.42	.11
Quality of Relationships w/T.S	2.89 (.86)	3.26 (.71)	-.36	2.00*	.48

*** $p < .001$, ** $p < .01$, * $p < .05$ (two tailed)

⁺ CSCS-R Overall averages across the six scales, reversing Negative Portrayals so that all scales are in the same direction, with higher scores demonstrating higher cultural sensitivity

Cohen's $d < .2$ small effect size; $d = .5$ medium effect size; $d > .8$ large effect size

those who identified as Black ($n = 28$) from Asian students ($n = 49$). Sample sizes were too small for analyses of other ethnic minority groups ($n = 11$ mixed; $n = 11$ other).

Black students rated the cultural sensitivity of the curriculum lower than Asian students across each CSCS-R dimension and *CSCS-R Overall* (Table 4). However, with small sample sizes, only *Negative Portrayals*, *Positive Depictions*, and *CSCS-R Overall* were significantly different, with medium to large effect sizes. On the other subscales, the effect sizes were small to medium, though they did not reach statistical significance. The results partially confirm H1.2; larger sample sizes are needed to better substantiate the hypothesis.

RQ2

There were no significant differences on *Interest* or perceived Quality of Relationships with Teaching Staff (*QRTS*) between minority ethnic and White students (Table 3). Likewise, there were no significant correlations between ethnicity and *Interest* nor ethnicity and perceived *QRTS* (Table 5). Consistent with the RQ1 findings, there were significant correlations between ethnicity and the CSCS-R scales, demonstrating again that ethnic minority students perceived the curricula as less culturally sensitive.

Given the high correlations among the CSCS-R scales, we computed *CSCS-R Overall*, an average of the six scales after reversing *Negative Portrayals*. Each of the CSCS-R scales, except *Negative Portrayals*, was significantly correlated with both perceived *QRTS* and *Interest* (Table 5). Perceived *QRTS* and *Interest* were also positively correlated. Gender and age were not significantly correlated with any other variables.

Regression analysis (Table 6) showed that *CSCS-R Overall* predicted students' *Interest* in their degree course even when *QRTS* was included in the model. Thus, H2.1 was supported. As expected, *QRTS* was also a significant predictor, supporting H2.2. When running separate regression analyses for each CSCS-R subscale, five of the six scales were significant predictors when controlling for *Quality of Relationships with Teaching Staff* (Table 7). Only *Negative Portrayals* was not a significant predictor.

RQ3

We address RQ3 through the findings of the new open-ended question that asked students to report an example of culturally sensitive education. Out of the 117 respondents who answered the question, 68 responses (58%) came from White students, while 45 responses (38%) came from Black, Asian, or other minority ethnic students, and 2.7% preferred not to say. These percentages match the overall percentages of the subgroups completing the survey. Among the total 45 ethnic minority respondents, 26 responses (58%) came from Asian students, 12 responses (27%) came from Black students, 4 responses (10%) came from Mixed or multiple ethnic groups, and 3 responses (8%) came from other ethnic groups and 3 (6%) were not identified. Again, these percentages were broadly consistent with the overall response rate for each subgroup, though Asian heritage students were slightly over-represented relative to the survey respondents overall.

Table 2 of the supplemental materials presents an overview of the number and percentage of comments that fit different codes, with examples of each code from various disciplines. First, two of the authors (one White female American, one male Pakistani) repeatedly read and discussed each response, seeking agreement on how to deductively code each response according to the CSCS-R scale categories. Coding was guided by the conceptualization and operationalization of the CSCS categories (Thomas & Quinlan, 2023). Our intention was to collect positive, specific examples of culturally sensitive practice. However, some students used this open-ended response box to offer other comments that described the absence of culturally sensitive curricula. Thus, we coded those as examples of the absence of related CSCS-R factors: *Diversity Not Represented* and *Not Inclusive Classroom Interactions*. We further explained the coding or interpreted students' responses with comments in the last column of Table 2 SM.

Most answers (77/117) fit one of the CSCS-R factors or their absence. The most common code was *Diversity Represented* (29%) or its absence, *Diversity Not Represented*

Table 5 Pearson product-moment correlations for the study variables

	1	2	3	4	5	6	7	8	9	10	11	12
1. Diversity Represented	—											
2. Negative Portrayals	-.04	—										
3. Positive Depictions	.53**	-.12	—									
4. Challenge Power	.58**	.02	.49**	—								
5. Inclusive Classroom Interactions	.52**	-.01	.45**	.62**	—							
6. Culturally Sensitive Assessments	.60**	-.01	.49**	.64**	.61**	—						
7. CSCS-R Overall	.77**	-.37**	.76**	.77**	.72**	.79**	—					
8. Interest	.33**	-.04	.28**	.34**	.40**	.38**	.39**	—				
9. Quality of Relationships w/T. S	.29**	-.00	.14*	.39**	.45**	.39**	.38**	.34**	—			
10. EM or White	.23**	-.29**	.29**	.13*	.21**	.18**	.30**	.04	.07	—		
11. Gender	-.05	.01	-.08	-.01	-.09	-.10	-.06	-.01	-.00	-.00	—	
12. Age	.03	.09	-.00	-.01	.09	.08	.01	.10	.03	.05	.06	—

** $p < .01$, * $p < .05$ (two tailed)

Listwise deletion $N = 246$

Table 6 Hierarchical regression analyses: demographic variables and CSCS-R overall as predictors of interest

Model	Variables	R ²	F(df1, df2)	SE	β
1		.01	.687 (3, 270)		
	Gender			.07	.01
	EM or White			.08	.05
	Age			.00	.07
2		.16	12.79*** (4, 269)		
	Gender			.06	.03
	EM or White			.07	-.08
	Age			.00	.07
	CSCS-R overall			.04	.41***
3		.20	13.64*** (5, 268)		
	Gender			.06	.03
	EM or White			.07	-.06
	Age			.00	.06
	CSCS-R overall			.05	.32***
	Quality of relationships w/T.S			.05	.23***

*** $p < .001$, ** $p < .01$, * $p < .05$ (two tailed)

Table 7 Simultaneous regression for each of the CSCS-R scales as predictors of interest

Variable	R ²	F (df1, df2)	SE	β
Diversity Represented	.17	11.13*** (5, 267)	.05	.24***
Negative Portrayals	.12	7.45*** (5, 263)	.02	-.05
Positive Depictions	.17	10.86*** (5, 258)	.03	.24***
Challenge Power	.16	10.02*** (5, 263)	.03	.21**
Inclusive Classroom Interactions	.19	11.96*** (5, 256)	.04	.29***
Culturally Sensitive Assessments	.18	11.49*** (5, 261)	.03	.27***

Run as separate equations due to collinearity. Each model controlled for gender, EM or White, age, and quality of relationships with teaching staff as in model 3 in Table 6

(16%). Most responses for *Diversity Not Represented* came from Black or Asian students, whereas White students were more likely to refer to *Diversity Represented*, consistent with the quantitative survey results reported for RQ1. The second most common category was *Inclusive Classroom Interactions* (22%); its absence was noted in a further 8% of responses. Again, more Black and Asian students gave examples of *Not Inclusive Classroom Interactions*. Seventeen percent of the responses were examples of *Challenge Power*. Relatively few responses referenced *Positive Depictions* (5%) or *Negative Portrayals* (3%), though many of the *Diversity Represented* responses might have been one or the other, but students' responses were not detailed enough to code them according to the type of representation. Only one example clearly related to *Culturally Sensitive Assessments*.

Nineteen (19) responses were coded under multiple categories, so the percentages in Table 2 (SM) do not total 100%. Most of the multiple-coded responses (16) fit into just two categories, while three were coded into three categories. Overlaps occurred between

Diversity Represented and *Inclusive Classroom Interaction*, *Positive Depictions*, and *Challenge Power*, while *Diversity Not Represented* overlapped with *Negative Portrayals*.

Twenty-one (21) responses were not classifiable in relation to the CSCS-R categories, so we created two new categories. First, we coded 12 responses as *Topics/Modules* because they only listed the name of a module or topic that may have been perceived as culturally sensitive according to one or more of the CSCS-R factors. We called the second new category '*Backlash*' including four students who expressed a negative reaction to the idea or agenda of creating culturally sensitive curricula. Finally, three answers were uninterpretable because the link to culturally sensitive curricula was not clear.

Discussion

Averaging across all the Culturally Sensitive Curricula Scale items, students tended to 'slightly agree' to 'agree' that their curriculum was culturally sensitive. They were most likely to agree that classroom interactions were inclusive and least likely to agree that racially minoritized people were depicted positively in positions of power or wealth. Black, Asian, or other minority ethnic students perceived their curricula as less culturally sensitive on five out of six dimensions of cultural sensitivity in the curriculum, consistent with Thomas and Quinlan (2023). The effect sizes were largest with *Negative Portrayals* and *Positive Depictions*, suggesting minoritized students are particularly aware of *how* minoritized people are represented, not simply *whether* they are represented in the curriculum. Ethnic minority students also rated *Challenge Power* lower, which addresses the extent to which the curriculum encourages students to 'critique unearned privilege' and 'challenge power structures in society', but the differences were not statistically significant.

Black students tended to rate the curricula as less culturally sensitive than Asian heritage students. While these categories are still broad, it was an important advance to begin to disaggregate the experiences of different minoritized groups. The findings suggest that curricular 'experience gaps' may be more acute for Black than Asian students. This finding has practical local implications for creating equitable educational contexts for Black students and reinforces the importance of disaggregation of ratings by different groups.

Unlike previous studies, there were no significant differences on interest between ethnic minority and White students (Quinlan, 2019; Thomas & Quinlan, 2023). Culturally sensitive curricula predicted students' interest, while ethnicity did not, suggesting that it benefits all students (Thomas & Quinlan, 2021), not just ethnically minoritized students as previously emphasized (Thomas & Quinlan, 2023). This finding is significant in building the case for the importance of creating more culturally sensitive curricula as defined by the CSCS-R.

As expected, the perceived quality of relationships with teaching staff (QRTS) also significantly predicted interest, corroborating earlier studies (e.g. Marjoribanks & Mboya, 2004; Quinlan, 2019; Rotgans & Schmidt, 2011). QRTS can be regarded as a general measure of good teaching. Good teachers—those who maintain positive relationships with their students—may be more culturally competent and more likely to invest in innovations such as culturally sensitive curricula. Thus, it was important to distinguish whether the effects on interest were solely due to good, compassionate teachers or whether the CSCS-R captures a separate dimension worthy of being incorporated into curricular reform. The fact that *CSCS Overall* and five of the six CSCS-R dimensions were significant predictors

even when controlling for the perceived QRTS suggests that culturally sensitive curricula do have a unique association with interest above and beyond good teaching.

The revisions to the CSCS (now CSCS-R) make an important advance in understanding and measuring the construct of culturally sensitive curricula. First, *Negative Portrayals* and their absence behaved differently from *Positive Depictions*. *Negative Portrayals* was the only scale not significantly correlated (either positively or negatively) with the other five CSCS-R scales. Likewise, it was the only scale that was not associated with either students' interest or perceived QRTS. Thus, the mere absence of stereotyped and negative images of minoritized people in the curriculum is not the same as presenting positive images of people of colour in positions of power, status, or prestige. *Positive Depictions* are associated with interest, possibly through relevance, cognitive incongruity, or novelty, while simply avoiding stereotyped images is not. *Negative Portrayals* are still an important dimension of the CSCS-R construct, though. The difference between the subgroups of students was largest on this dimension, suggesting that it helps define experience gaps, consistent with qualitative research that describes negative experiences of racially or ethnically minoritized students in HE (e.g. Arday et al., 2021; Harper et al., 2018; Meda, 2020; Museums, 2014; Thomas & Jivraj, 2020).

The addition of *Culturally Sensitive Assessments* was also an important advance. Students may choose not to attend class, participate in class activities, or read everything on a reading list, but they must do assessments to pass a module. Thus, it is a vitally important part of the curriculum. We found that this new scale correlated with all other CSCS-R dimensions (except *Negative Portrayals*) and was a significant predictor of interest. More work needs to be done to characterize, design, and evaluate culturally sensitive assessments in practice.

Responses to the new open-ended question were consistent with the CSCS-R categories and findings from the quantitative analyses. The fact that no new substantive categories emerged from the analysis of students' examples suggests that the CSCS-R comprehensively addresses the construct from students' perspectives. The open-ended question will likely be of limited theoretical value in the future, but it may be helpful to participating teachers to understand which activities students recognize as culturally sensitive. The open-ended question surfaced a few comments that reflected a backlash against promoting culturally sensitive curricula. Different country contexts may have differing degrees of dividedness on issues related to cultural sensitivity, which may affect how students respond and the extent to which it is associated with higher interest.

Theoretical and practical implications

This study makes a theoretical contribution to interest research by highlighting specific features of the curriculum that support HE students' interest. As such, the study enriches our theoretical understanding of the environmental/situational antecedents of interest. From a psychological perspective, the CSCS-R dimensions of cultural sensitivity may operate through established mechanisms such as cognitive activation, relevance, cognitive incongruity, or novelty (Crouch et al., 2013; Dohn, et al., 2009; Guo & Fryer, 2022; Harackiewicz & Priniski, 2018; Harackiewicz, et al., 2016; Hecht, et al., 2021; Hulleman, et al., 2010; Quinlan, 2019). Which mechanisms mediate between the CSCS-R and interest is not clear and likely depends upon students' views of society and their intended professions. Different scales may operate through different or multiple mechanisms. Future studies might explore those relationships. In different social contexts, certain features of the

CSCS-R may be regarded as more or less relevant, cognitively incongruous, or novel, so these more basic mechanisms may help explain differential effects on outcomes that may arise in future studies in different contexts.

From an instructional perspective, the study is useful for educators because the CSCS-R items and scales detail how teachers can create curricula that both support students' interest and reflect an increasingly diverse society. The study, then, may help educators create more interesting and engaging curricula, while also addressing issues of diversity, equality, and inclusivity within HE. The CSCS-R methodological enhancements will facilitate further research and evaluation of related curricular reforms.

Limitations and next steps

It is unclear why interest gaps between ethnically minoritized and White students were observed in previous UK studies (Quinlan, 2019; Thomas & Quinlan, 2023) but not this one. Perhaps, interest gaps occur primarily in high-status disciplines (e.g. engineering, law, economics/finance, and medicine) in which minoritized students experience cultural pressures to enroll, prompting instrumental rather than interest-driven course choices. Most of the courses included here did not fit that profile. Most students were studying pro-social professions (nursing, education, psychology) where cultural sensitivity may be more naturally interesting than in other fields. Future studies might seek replication in a wider range of fields. While the current study expanded the range of courses studied from arts, humanities, and social sciences (Thomas & Quinlan, 2023) to applied health professions (e.g. nursing), further work remains to validate it in other science disciplines.

This study was limited to second-year undergraduates. Thomas and Quinlan (2023) also prioritized second year through postgraduate students, in part because first-year students may not yet have the critical skills to assess these aspects of the curriculum. Future studies should investigate first-year students, especially as the first year is such a critical period for retention.

Notably, there were no significant differences between universities and courses at a particular point in time when the movement toward diversifying, decolonizing, or creating more culturally sensitive curricula was still nascent in those institutions. The participating institutions sought to use the data as a baseline to support subsequent reform efforts. The CSCS-R is a valuable tool for measuring change in curricula. A next step is to use it in evaluating change efforts rather than gathering a single snapshot in time.

Finally, to our knowledge, the CSCS and now CSCS-R have only been used in British HE institutions. Given widespread inequalities globally, the CSCS-R needs to be adapted and tested for its relationship with interest and other outcomes in a wider range of contexts.

Conclusion

This study tested and validated important enhancements to the Culturally Sensitive Curricula Scales (CSCS-R). Consistent with previous research, racially minoritized students rated their curriculum as less culturally sensitive than their White peers. Black students rated it as less sensitive than Asian students. Culturally sensitive curricula were associated with higher student interest in their course, even when controlling for ethnicity and perceptions of the quality of relationships with teachers. In sum, culturally sensitive curricula may benefit all HE students, not just those who are ethnically minoritized.

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Data Availability Data de-identified by institution is available upon request from the first author.

Declarations

The authors have no financial or non-financial interests that are directly or indirectly related to the work submitted for publication.

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