Exploring ethnic differences in student engagement and assessment preferences in higher education

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Abstract

This study examined the relationship between student engagement, assessment preferences and ethnicity among university students. 64 participants who were enrolled in either BSc Psychology or BSc Psychology (Sport, Health and Exercise) at a UK university took part in the survey. The survey assessed student engagement through the University Student Engagement Inventory (USEI) and assessment preferences using the Assessment Preference Inventory (API). Our results indicate no significant differences in student engagement across different ethnic groups. However, notable distinctions were observed in assessment preferences. White students preferred to receive more detailed remarks in their feedback than Asian and Black students. All participants ranked oral presentations as their least preferred assessment type. On the other hand, preferences for the most favoured assessment type varied by ethnicity; White students preferred multiple-choice question exams, while Asian and Black students preferred coursework essays. These findings suggest that, while engagement levels may be similar across ethnic groups, preferences for feedback and assessment types differ, which can help educators develop more inclusive and effective assessment strategies.

Keywords: student engagement; assessment preferences; higher education; ethnicity.

Introduction

Student achievement acts as a measure to determine how effective the educational system is and is the basis for education (Hattie and Anderman, 2013). It demonstrates the way in which students may understand and acquire knowledge, and how this could be adapted to help students gain the most success from their education. A multitude of things can impact students' achievement and can contribute to the betterment of students' education. However, research shows that White students are more likely to gain a first class or upper second-class degree at university in the UK than their underrepresented minority counterparts (Jankowski, Sandle and Brown, 2022). Although improvements have been implemented within education in an attempt to tackle these achievement gaps, the disparities are still notably evident. Singh et al. (2022) carried out research within higher education (HE) to understand the degree awarding gap, using students in geography, planning, geology and environmental sciences in the UK. The research highlighted that minoritisation (the process in which individuals or groups are systematically disadvantaged) takes place in several ways within the education setting, ranging from negative social interactions to disappointment with the teaching delivery. The study also emphasised the need to remove the gap by creating strategies useful for both staff and students. Yet, this study does not focus on how the disparities can affect attitudes towards assessments. This is important to consider, given assessment outcomes are where these awarding gaps arise. We know that the awarding gap is a problem, but we cannot solve this if we do not know what contributes to it. Therefore, this study sought to investigate not awarding gaps themselves, but whether there is a difference in student engagement and/or assessment preferences as a function of self-identified ethnicity.

The concept of student engagement is an important focus in HE. Engagement can be understood through three key dimensions: behavioural, emotional and cognitive engagement (Maroco et al., 2016). Behavioural engagement refers to students' participation in academic and extracurricular activities, often seen as a direct indicator of involvement and effort in their learning processes (Maroco et al. 2016). This includes, for example, attending classes, participating in discussions and completing coursework. Beer, et al., (2017) note that students who consistently engage in these activities tend to achieve better academic outcomes, as regular participation reinforces learning and fosters a sense of discipline. Additionally, such engagement contributes to students' ability to manage academic challenges and maintain steady progress in their studies (Beer et al., 2017).

Emotional engagement, on the other hand, encompasses the emotional responses and connections students develop around their university experience, including feelings of belonging, motivation and interest in their studies (Maroco et al., 2016). Pinzone and Reschly (2021) emphasise that positive emotional experiences, such as a sense of belonging and interest in the subject matter, are essential for sustained engagement. When students feel connected to their peers and educators, and when they experience positive emotions related to their academic journey, they are more likely to remain motivated and committed to their studies. This connection between emotional wellbeing and academic engagement is also supported by Parsons and Taylor (2011), who argue that emotional engagement directly impacts retention rates and overall student satisfaction.

Cognitive engagement refers to the intellectual investment students make, highlighting their strategies for learning and critical thinking, and the extent of their commitment to mastering complex academic content (Maroco et al., 2016). Cognitive engagement is characterised by deep learning strategies, critical thinking and a willingness to tackle complex academic tasks. According to Young (2010), students who are cognitively engaged tend to exhibit higher levels of critical thinking and are more likely to persist through academic challenges. They actively seek to understand and master material at a deeper level, which in turn enhances their academic performance and long-term retention of knowledge. To enhance cognitive engagement, educators should provide students with the freedom to select and manage their own learning (Muzaki, Madinah and Ejuu, 2020). This approach requires teachers to create engaging lessons, assessments and projects that interest students (Sesmiyanti, 2018). Furthermore, cognitive engagement involves students actively thinking during academic tasks and participating in classroom activities (Sesmiyanti, 2018). Understanding and enhancing these elements of engagement is therefore critical for UK universities aiming to improve student outcomes and foster a more inclusive and supportive learning environment.

In relation to the impact of overall student engagement, Cheong and Ong (2016) found a relationship between student engagement and student achievement. This study focused more on engagement in relation to extracurricular activities such as clubs and organisations – ranging from sport and athletic clubs to music and theatre – and how that can affect student attainment and satisfaction. The students were able to build social connections with their peers, apply academic skills in a real-world context and develop

their self-esteem. These experiences positively impacted the students' lives, leading to increased motivated to do well academically. This indicates the importance of student engagement and the contributory role it has in attainment.

Closely tied to engagement and student achievement is the role of feedback. Effective feedback is one of the most powerful influences on student learning and attainment when delivered appropriately (Hattie and Timperley, 2007). It serves, not only as a tool for identifying learning gaps, but also as a mechanism through which students can understand how to improve and build confidence in their academic abilities. Feedback can foster cognitive engagement by guiding students through the learning process, and it can enhance emotional engagement by reinforcing a sense of competence and support. When timely, specific and aligned with clear learning goals, feedback has been shown to significantly improve academic performance across diverse student groups (Hattie and Timperley, 2007). Therefore, understanding the role feedback plays in shaping student experience is vital in any exploration of attainment and equity.

Another factor that can influence students' achievement is assessment type. Maya, Luesia and Pérez-Padilla (2021) conducted research to investigate the relationship between learning styles and academic performance while taking assessment types into account, focusing on Psychology and Education students at two universities in Spain. The assessment types included were multiple-choice, short answer, creation-elaboration (i.e., an assessment that includes higher-order thinking and encourages students to actively construct their own understanding) and an elaboration question on the relationship between theory and practice. The Psychology students had a more theoretical and abstract learning style, while Education students were evenly distributed among learning styles and were more practical in relation to their learning style. Furthermore, high scores in perception (abstract conceptualisation) were related to a high level of performance on the multiple-choice tests and the elaboration question on the relationship between theory and practice Abstract conceptualisation was also linked to medium-high performance in all assessment types, and this predicted high performance independent of the type of assessment (Maya, Luesia and Pérez-Padilla, 2021). This highlights how different assessment types can impact student achievement. This is because students are more inclined to prefer assessment types they perform better at or are more comfortable with, and the learning styles they use can directly impact that.

The primary objective of this study is to investigate whether there is a difference in student engagement as a function of self-identified ethnicity. Although previous studies have not looked at ethnicity differences in student engagement, if this is related to the awarding gap, we hypothesise that minority ethnic students have lower levels of engagement in comparison to their white counterparts. We further wanted to explore whether there were any differences in assessment preferences as a function of self-identified ethnicity. The authors note that in this particular study the term 'minority ethnic' is used as this is the term that our student cohort who identify this way prefer to be addressed.

Method

Participants

The participants were all undergraduate students enrolled in either BSc Psychology or BSc Psychology (Sport, Health and Exercise; SHE) degree programmes at a UK university. FHEQ Level 4/Year 1 and FHEQ Level 5/Year 2 students were recruited through the Psychology Participant Pool System (SONA), as part of their Research Methods and Statistics modules, and received one credit in recompense for their participation. The SONA system is used for Psychology researchers and academics to publish their studies for students to take part in. Survey data collection took place between 30th March and 15th June 2022.

A total of 95 participants started the survey. From these, 17 did not complete the survey and hence were removed from the dataset. Participants self-identified their ethnicity using the ethnicity categories from the Office for National Statistics in the UK (Office for National Statistics, 2021). 28 (43.8%) identified as Asian, 22 (34.4%) as White, and 14 (21.9%) as Black. Given that the aim of the study was to compare across self-identified ethnicity groups, a further 14 were removed due to these ethnic categories having too few people for statistical viability (i.e. only two participants identified as 'Chinese', four as 'Mixed', and eight as 'Other'). Although this may be seen as further overlooking these student groups, we felt it would be more problematic to make conclusions based on insufficient statistical power. Therefore, a total of 64 participants took part in the survey; most identified as female (44; 68.8%), 19 (29.7%) identified as male and one as non-binary (1.6%). Twenty-five (39.1%) participants were registered in FHEQ Level 4/Year 1 and 39 (60.9%) in FHEQ Level 5/Year 2.

Materials

Data was collected via online survey using Qualtrics. The survey consisted of four main sections. In the first section, participants were asked demographic questions such as gender, ethnicity and level of study. The second section was the University Student Engagement Inventory (USEI) (Maroco et al., 2016). The USEI is a measure of engagement with one's academic study and overall university engagement. Participants respond to 15 statements relating to behavioural, emotional and cognitive engagement, recording how often each item applies to them using a 5-point Likert scale from 1 ('Never') to 5 ('Always'). Example items include: 'I pay attention in teaching sessions', 'I like being at university', and 'I try to integrate the acquired knowledge in solving new problems'. One item was reverse-coded, and a sum score was calculated for each subscale. A higher score indicated higher behavioural, cognitive or emotional engagement. The reliability of each subscale was determined using Cronbach's alpha. This measures how closely related a set of items are when they are grouped. In other words, it checks whether the items are consistently measuring the same underlying construct. If a subscale has a high internal consistency, this suggests that the items are measuring the same thing consistently, and thereby the scale is reliable. The Cronbach's alpha values range from 0 to 1, and a higher value indicates greater internal consistency. Typically, scores higher than .60 are considered to be reliable. The reliability of the behavioural engagement subscale was $\alpha = .34$, the emotional engagement subscale was $\alpha = .62$ and the cognitive engagement subscale was $\alpha = .81$. Therefore, in this study both the emotional and cognitive engagement subscales had good reliability, the behavioural engagement subscale did not.

The third section referred to the Assessment Preference Inventory (API) (Birenbaum, 1994). The API consists of 67 items. Participants were asked to indicate to what extent they would like their assessments to be based on each of the first 36 items, followed by 30 items where they indicated their preference on the role of the instructor in relation to the assessments. They rated each item on a scale from 1 (not at all) to 5 (to a great extent) or 0 (N/A). Example items include: 'Written tests, with supporting materials (notes, books)' and 'To what extent would you like the instructor to: hand out at the beginning of the course, a detailed description of the way your achievements will be assessed?'.

In the fourth section, participants were asked to indicate their assessment preferences by ranking a set list of assessments starting with the one they prefer the most. This list

contained all types of assessments from the Psychology UG degree programme: coursework: reflective essay, coursework: synoptic essay (i.e. an essay that integrates different topics from different blocks), coursework: essay, coursework: lab report, coursework: qualitative report, multiple-choice questions exam, long-essay questions exam (i.e. essay questions that require you to write more than 500 words), short-essay questions exam (i.e. essay questions that require you to write 500 words or less), take-home exam, oral presentation, and` poster presentation (i.e. designing a poster and presenting it to an audience).

Data analysis results

The survey data was analysed using IBM SPSS Statistics version 28 (IBM Corp, 2021). Data were inspected for accuracy of data entry and missing values, and checked for normality using skewness and kurtosis values. One-way analysis of variance (ANOVA) was used to test whether there were any differences in students' engagement between the ethnicities. A one-way ANOVA helps determine if there are statistically significant differences between the means of three or more independent groups. In this study, there were three independent groups: White students, Black students and Asian students. The 'one-way' element refers to the fact that the analysis is done to examine the effect of a single independent variable, in this case, the three engagement variables and the 67 assessment preferences. The same test was conducted to see whether there were any differences for any of the 67 items on the API between the ethnicities. An alpha level of 0.05 was used for all statistical tests and the effect size reported was partial eta-squared (Field, 2013).

Procedure and ethical considerations

Ethics approval to conduct the study was given by the authors' institution's Research Ethics Committee (Ref: 36073-MHR-Mar/2022- 38942-2). Participants were presented with a participant information sheet and an informed consent form, after which they gave their consent and started the study. Participants were informed that they could withdraw their participation at any point, should they wish, that no penalty would be applied, and that their data would remain confidential. At the end of the study, participants were thanked for their participation and received a debrief form and the participation credit.

Results

To test the hypothesis that student engagement differed as a function of ethnicity, three one-way ANOVAs were conducted, one for each type of student engagement. Results showed that none of the student engagement scores differed between the ethnicities (Figure 1: Behavioural Engagement: $F(2,63) = 0.10$, $p = .90$, $\eta^2 = .003$, Emotional Engagement: $F(2,63) = 0.80$, $p = .45$, $\eta^2 = .026$, Cognitive Engagement: $F(2,63) = 0.08$, $p = .93$, $\eta^2 = .002$). This means that there was no difference in behavioural, emotional or cognitive engagement across the White, Asian and Black students.

Figure 1. Mean USEI scores as a function of ethnicity.
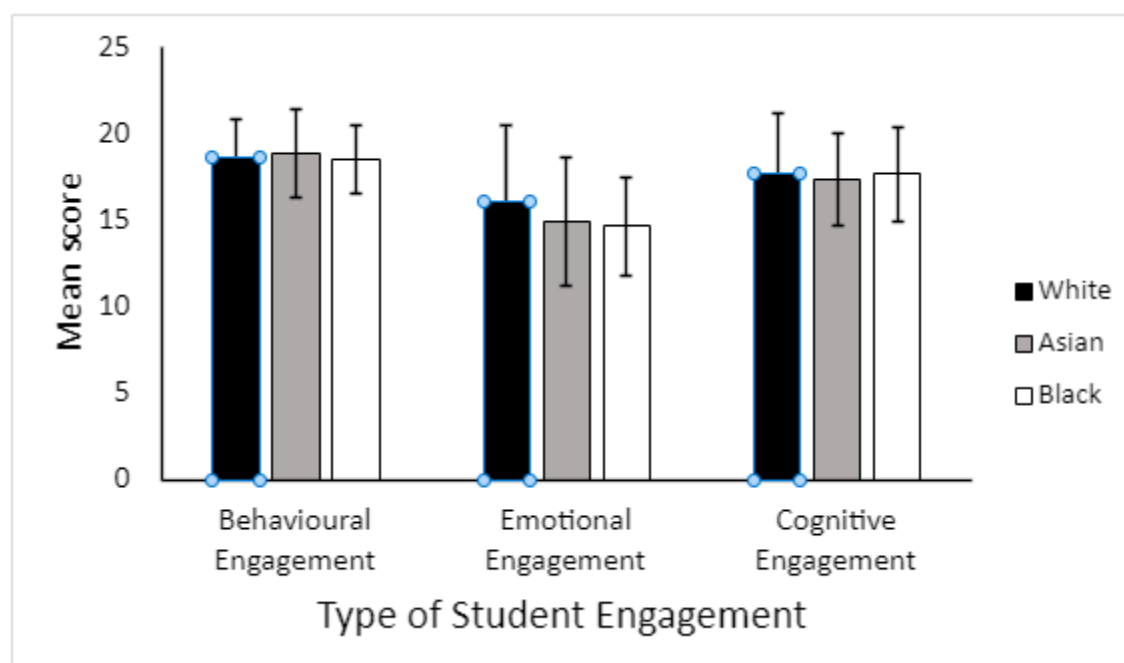
To test the hypothesis that there were differences in assessment preference as a function of ethnicity, 67 one-way ANOVAs were conducted, one for each assessment type. We corrected for multiple comparisons. Results of the one-way ANOVAs showed that only one of the API items, item 67, significantly differed between the ethnicities $F(2,63) = 5.08$, $p = .009$, $\eta^2 = .143$. Item 67 was: 'To what extent you would want: to receive detailed remarks as to your response on a test or a paper written by you'. Post-hoc tests showed that there was a significant difference between White and Asian groups ($p = .02$) (White: $M = 4.64$, $SD = 0.49$; Asian: $M = 3.93$, $SD = 1.02$). There was a significant difference between White and Black groups ($p = .03$) (Black: $M = 3.86$, $SD = 1.03$; White: $M = 4.64$, $SD = 0.49$). There was no significant difference between Asian and Black groups ($p = 1.00$) (Asian: M

= 3.93, *SD* = 1.02; Black: *M* = 3.86, *SD* = 1.03). This means that White students preferred detailed remarks on an assessment more than Black or Asian students did. In addition, there was no difference in how much Black or Asian students preferred detailed remarks on their assessment.

For the final part of the survey, where students were asked to rank a set list of assessments starting with the one they preferred the most, the results showed that irrespective of ethnicity, all students preferred oral presentations the least. For the assessment they preferred the most, there was a difference in ranking between the different ethnicities. White students preferred multiple-choice question exams and Asian and Black students both preferred coursework: essay as an assessment.

Discussion

Our results showed that there were no differences in student engagement in any of the different types of engagement measured in relation to ethnicity. In addition, our results show that White students prefer to receive more detailed remarks on their assessment feedback compared to Asian and Black students. When examining ranking of assessment types in order of preference, the type of assessments participants liked the least did not differ between ethnicities. All participants ranked oral presentations as their least preferred assessment, with White students also preferring poster presentations least. In contrast, there was a clear distinction in the assessment type they preferred the most. White participants preferred multiple-choice question exams, whereas both Asian and Black students preferred coursework: essay as an assessment type.

Although there were no differences in student engagement with relation to ethnicity in this study, there were differences in preferences regarding feedback and assessment types in the different ethnic groups studied. This may stem from a variety of factors, including cultural and linguistic reasons or stereotypes and biases. Unconscious biases, also known as implicit biases, are personal biases against a specific group that the biased individuals themselves are not aware of (Cuellar, 2017). Unconscious bias refers to beliefs, stereotypes and prejudices that are held at a subconscious level and which can influence how one may interact with and perceive others. This may be a reason why Black and Asian students least preferred oral presentations as an assessment type – because they

might be judged with preconceived ideas. They may have experienced (un)conscious bias on the part of teaching staff. Connor et al. (2004) reported that tutors within HE had low expectations of minority ethnic students. If such beliefs are held by teaching staff, that could, in turn, affect student performance.

Similarly, Dhanda (2010) found that minority ethnic students are not challenged as much as they should be due to the lower expectations. This low expectation in turn may contribute towards low achievement. In addition, Dhanda's (2010) study found that Black and minority ethnic students had mixed feelings regarding getting support from tutors within higher education. This was due to them receiving contradictory or diverse feedback and opinions on their work by the teaching staff. A perception of bias on the part of teaching staff was also expressed by some students in regard to how they are assessed. This demonstrates how unconscious biases are prevalent and can affect the way teaching staff view students, which could result in minority ethnic students not feeling comfortable or confident about giving oral presentations. This was the only assessment type at the authors' institution that was not marked in anonymised form.

However, White students also rated oral presentations as their least preferred assessment type. It may, therefore, also be possible that students lack confidence in public speaking, and thus find this type of assessment more daunting, irrespective of ethnicity. This is in line with Otermans, Aditya and Pereira's (2023) finding that students had lower levels of confidence in communication skills compared to other skills. In addition, our finding aligns with Otermans et al.'s (2025) work showing confidence levels in a variety of skills across Year 1 and Year 2 students, in which 'oral presentation skills' was one of only two skills in which students had significantly lower than average confidence levels. This indicates that students may find oral presentations scary.

The observation that White students tend to prefer more detailed feedback than their Black and minority ethnic peers feeds into a broader debate about the role of feedback in inclusive assessment. Critics argue that traditional, detail-oriented feedback – which is often aligned with mainstream academic expectations – may inadvertently privilege those students who have been socialised into environments where such specificity is valued, thereby reinforcing pre-existing educational inequities (Ladson-Billings, 1995; Hattie and Timperley, 2007). Proponents of culturally responsive assessment, however, emphasise the importance of tailoring feedback to recognise diverse learning styles and backgrounds,

suggesting that a one-size-fits-all approach may not effectively support all learners (Brookhart, 2017). This debate underscores the need for educators to balance clarity and rigour in feedback while remaining sensitive to the diverse cultural and educational experiences of their students, ultimately promoting equity and fostering a more inclusive learning environment (Gay, 2010).

Finally, it is not entirely clear why White participants preferred multiple-choice question exams, whereas both Asian and Black students preferred coursework: essays. This could be because Black students find exam settings more confrontational due to systematic issues such as stereotype threat (Steele and Aronson, 1995) or microaggressions and racism creating a sense of alienation and confrontation (Lane et al., 2021). Further research is needed to explore these differences.

While this study explores important issues related to assessment, student engagement and the awarding gap, it is also directly relevant to the field of Learning Development. Learning developers play a critical role in supporting student success, particularly within the context of widening participation and inclusive education. They work at the intersection of pedagogy and academic support, helping students navigate the complexities of higher education through tailored interventions in areas such as academic writing, critical thinking and assessment literacy. Given the study's focus on how engagement and assessment preferences vary by ethnicity, it highlights a space where learning developers can have a targeted impact by designing and delivering support that is responsive to diverse student needs and experiences. Furthermore, as institutions work to close awarding gaps, learning developers are very well positioned to collaborate with academic staff to create inclusive curricula, develop feedback practices, and co-create learning environments that foster equitable outcomes. In this sense, the study's findings not only contribute to broader debates in HE but also reinforce the centrality of learning development in promoting student success.

Limitations

This study does not take into consideration whether the students that took part in the study were UK home students or international students, seeing as international students may face different barriers in comparison. Minority ethnic international students who do not

have English as a first language are vulnerable to miscommunication of teacher expectations (Dhanda, 2010). This may be a contributing factor in their preferred assessment types as well as whether or not students would want to receive feedback. Furthermore, ethnicity does not encompass cultural differences as a whole, as individuals within the same ethnic group may have different cultural backgrounds and experiences. This possible varied culture was not taken into account, and this may overgeneralise the effect ethnicity has on student achievement as well as engagement. Additionally, gender was recorded during the study, but it was not taken into consideration as a variable that could possibly impact the disparities in student engagement and achievement in regard to ethnic backgrounds. Some studies reported that females tend to have more engagement than males (Kuh, 2003; Lam et al., 2012). The majority of participants in this study (68.8%) were female, which may have influenced the findings. It may also be that the students who participated may already have high levels of engagement as these students were recruited through SONA for their modules. This could imply that those who engaged with study and participated are those who engage within their academics.

Future research

The study requires a bigger sample size by collecting data from students across the span of a few years, to have a more representative sample. This would allow analysis to include the ethnic groups that had to be excluded due to insufficient participant numbers. It would also be beneficial to control for other variables which may influence student engagement and student achievement, such as socio-economic status and prior academic performance, to ensure the study can capture the diversity within each ethnic group. In addition to this, interviews and/or focus groups could be conducted to gain a deeper understanding of the factors that can influence student engagement and assessment preference and the participants' subjective perspective including how they like to receive feedback and what they do with this feedback. This would create a robust method as it would incorporate the lived experience and nuances of these students. Investigating the relationship between student engagement, assessment and achievement was beyond the scope of this study. However, future research could explore this important multi-dimensional relationship. In addition, future research should consider exploring intersectionality. Unfortunately, our sample size was not large enough to allow statistically sound interpretations to be made.

Conclusion

In conclusion, our findings reveal that student engagement does not vary by ethnicity across different types of engagement. Although the null hypothesis was not rejected, this is a very useful finding for educators. It shows that it is not the student engagement that is key, but the type of assessment they have to do and how they receive feedback. When looking at assessment preferences, White students exhibit a preference for receiving more detailed feedback on their assessments compared to their Asian and Black counterparts, while all participants universally disliked oral presentations. Conversely, the most preferred assessment type varied, with White students favouring multiple-choice exams, while Asian and Black students preferred coursework: essays. These results highlight nuanced differences in assessment preferences that could inform more tailored and inclusive educational practices.

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