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Inclusive Teaching Practices in Post-Secondary Education: What Instructors Can Do to Reduce the Achievement Gaps at U.S. Colleges

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Achievement gaps exist along the lines of race, gender, sexuality, social class, and ability status from elementary school to graduate school in the United States. Instructors can help reduce achievement gaps by adopting practices that have been shown to promote the success of students from marginalized groups, so-called "inclusive teaching practices." In this paper, we present 20 easily implementable inclusive teaching practices for college instructors. Some of these practices focus on changing the behavior of instructors (e.g., establishing a norm of inclusion, presenting intelligence as malleable), while others target student behaviors (e.g., increasing interdependence when working in groups, allowing students to express their values in class). For each teaching practice, we summarize the empirical evidence and discuss its potential to reduce achievement gaps. While no one teaching practice will eliminate achievement gaps caused by structural inequalities, instructors can increase the inclusiveness, fairness, and equity of their classrooms though their actions and pedagogy.

Group-based inequity in education has a long and persistent history in the United States (Ogbu, 1994). Some progress has been made in promoting the success of students from marginalized groups, but this progress has been slow, uneven, and is far from complete (Harris & Herrington, 2006). One key measure of educational equity is the presence or absence of achievement gaps—i.e., disparities in the educational performance and outcomes between members of marginalized and non-marginalized groups. While some researchers prefer the term "opportunity gaps" to highlight the influence of structural factors, we use "achievement gaps" because it is more descriptive, commonly used, and ideologically neutral term to refer to disparities in educational outcomes. In the United States, achievement gaps exist along the lines of race, gender, sexuality, socioeconomic status (SES), and ability status from elementary school to graduate and professional school (Hunter & Bartee, 2003; McLaughlin, 2006). For example, at the university level students from marginalized backgrounds are less likely to graduate on time, students from lower SES backgrounds perform worse on standardized tests, and LGBTQ+ and racial/ethnic minority students are underrepresented in STEM courses and programs compared to their peers (Cataldi et al., 2018; Hughes, 2018; Spencer & Castano, 2007).

As with every complex social phenomenon, there are numerous factors that contribute to achievements gaps. A major predictor of educational success at the post-secondary level is earlier access to quality education (Sutton & Gallaway, 2000). Students from marginalized backgrounds are more likely to attend less well funded schools regardless of their own socioeconomic standing (Goldsmith, 2011). These segregated, poorer schools often lack high quality teachers, possess fewer resources, and provide inadequate courses, resources, preparation, and support structures for students who wish to attend universities (Flores, 2007). Additionally, students from marginalized backgrounds often face increased familial obligations compared to their peers (e.g., taking care of younger siblings or elderly family members while their parents are at work, translating for their parents if they are not fluent in English; Hardway & Fuligni, 2006; Witkow et al., 2015). Further, students from marginalized backgrounds often do not receive much support from their immediate social environment for attending college (Dennis et al., 2005). However, structural issues and lower-quality secondary education alone do not fully explain the presence and persistence of achievement gaps at US colleges (American Psychological Association [APA] Task Force on Educational Disparities, 2012).

One important factor contributing to achievements gaps is the fact that students from marginalized backgrounds experience subtle and overt acts of discrimination by both instructors and peers at colleges and universities (Wiggan, 2007). For example, students from marginalized groups are often stereotyped as being unintelligent or incompetent (Moss-Racusin et al., 2012), are frequently excluded when students form study groups or gather outside of class (Slavin, 1990), and do not feel included by their peers (Cheryan et al. 2009; Spencer et al., 2016). Additionally, students from marginalized groups sometimes experience impaired academic performance due to worries about confirming negative stereotypes about their social groups (i.e., "stereotype threat"; Spencer et al., 2016). Not surprisingly, students from marginalized backgrounds are far more likely than members of non-marginalized groups to report feeling as though they do not belong at universities (Walton & Cohen, 2011). This is particularly problematic given that students who feel greater social belonging perform better in class and are more likely to persist to graduation (Strayhorn, 2012). Additionally, increased concerns about belonging can lead students to view common challenges—such as struggling to make friends or failing a test—as signs that they do not belong,

promoting psychological disengagement and poorer educational outcomes (Walton & Cohen, 2007). Taken together, the research shows that interpersonal discrimination and lack of inclusion in educational contexts detrimentally affect students from marginalized backgrounds.

One way instructors can help reduce achievement gaps in higher education is by adopting certain practices that have been shown to promote the success of students from marginalized groups, so-called "inclusive teaching practices" (Dittman & Stephens, 2017; Quintana & Maghoub, 2016). While increasing the inclusivity of one's pedagogy alone will not completely counteract the detrimental impact of structural issues on the educational outcomes of students from marginalized backgrounds, inclusive teaching practices can make a difference: They can enhance marginalized students' sense of belonging, strengthen their resilience in the face of negative or discouraging events grades, and increase their graduation rates (Broda et al., 2018; Griner & Stewart, 2012; Jordt et al., 2017; Murphy et al., 2020; Walton & Cohen, 2011).

In this paper, we will present 20 easily implementable inclusive teaching practices, summarize the empirical evidence for them, and discuss their potential to reduce the achievement gap. The particularity of the practices presented here is that they have been rigorously evaluated. For each practice, we cite one or two studies, but there are often additional studies that provide convergent evidence for the same idea. In many of the studies cited below, students or classrooms were randomly assigned to either the treatment condition (inclusive teaching practice present) or the control condition (inclusive teaching practice absent). The authors then measured meaningful academic outcomes. A teaching practice is considered inclusive if it effectively reduces achievement gaps between students who do versus who do not belong to marginalized groups or if students form marginalized groups reported positive learning experiences or an increased sense of belonging. While we recognize that there are many instructional techniques that might reduce the achievement gap, we chose 20 practices that we judged to be well supported and easy to implement. Table 1 lists the 20 inclusive teaching practices in the order in which they become relevant for instructors when preparing for a class. Some practices have to be planned many months in advance (e.g., not grading on a curve) while others can be implemented spontaneously during the semester (e.g., providing motivating feedback).

1. Use Low-Stakes Testing

Studies have shown that once to-be-learned material has been studied for a while it is more effective to spend additional time testing oneself rather than studying the material further. For example, Butler and Roediger (2007) found that information retention for lecture material markedly increased for students who completed a few short-answer questions or a brief multiple-choice test compared to studying a summary of the class material. Hattikudur and Postle (2011) adapted this insight to the classroom context and asked students to complete an online quiz after each of the course lectures. Students could take these quizzes as often as they wanted but got full points only if they got all questions right. Adding the quizzes to the course increased students' final grades compared to previous years when the same class was taught without quizzes. Pennebaker et al. (2013) showed that the beneficial effect is strongest for students from marginalized groups. Having students complete short everyday quizzes for an entire semester led to a 50% reduction in the achievement gap between low SES and high SES students. Given that the quizzes count for only a small percentage of the total class grade and given that students take the quizzes unsupervised, this pedagogical approach is referred to as "low-stakes testing."

2. Do Not Grade on a Curve

Grading students on a curve means that student grades are determined by percentages defined a priori (e.g., the top 10 percent of students receive A's, the next 30 percent get B's, etc…). Research has shown that grading on a curve disproportionately affects students from marginalized backgrounds (Ahn et al., 2019). This is particularly true when students are in a class with high performing students. Grading on a curve arbitrarily limits the number of students who can excel in a given class and limits the validity of a class grade as a measure of student learning. Additionally, grading on a curve creates a competitive learning environment by pitting students against one another to earn high grades. Competitive learning environments are detrimental for all students, but disproportionately negatively impact students who feel as though they do not belong and lack social support (Roeser et al., 1998). Instead of grading on a curve, instructors can use an a priori grading scheme (e.g., 100-92% is "A", 91-88% is "AB", 87-82% is "B", 81-78% is "BC", etc…). A viable alternative is to adopt a system in which a certain number of points are added to every student's score so that the second-best student has a score of 100% and then the above-mentioned grading scheme is applied.

3. Allow for Flexibility in Student Assignments

Building flexibility into course schedules is associated with more positive physical and mental health outcomes for individuals with non-traditional schedules (i.e., individuals who work night shifts) or individuals

Table 1
Inclusive Teaching Practices that Rigorous Evaluation Studies Have Shown to be Effective

1. Use low-stakes testing.
2. Do not grade on a curve.
3. Allow for flexibility in student assignments.
4. Promote multiculturalism in your class.
5. Upload syllabi on a departmental website before registration begins so that students can do "syllabus shopping."
6. Use closed captioning.
7. Increase social belonging by making sure students know each other and informing them that social difficulties are common and transient.
8. Learn you students' names.
9. Establish a social norm of inclusion.
10. Include pictures of researchers when presenting empirical results.
11. Make sure to make salient the utility value of the material that you are covering.
12. Allow students to express what they value and why these values are important for them,
13. Foster a "growth mindset" by presenting intelligence as malleable and improvable through work and effort.
14. When doing group work in class, assign students to groups instead of letting students form their own groups.
15. Make sure that students are mutually dependent on one another for success when working in groups.
16. Don't necessarily call on the first student who raises their hand.
17. Never ask a student to speak as a representative of their social group.
18. Abstain from using tests where speed is critical for success.
19. Make sure to use unbiased exam questions and let students know that the exam questions they will encounter are unbiased.
20. Provide motivating feedback.

who have mental illnesses (Hurtado et al., 2015; Martens et al., 1999). Granting increased flexibility reduces the psychological distress associated with having rigid deadlines. It is also associated with greater student satisfaction (Dziuban et al., 2015). There are many ways instructors can build flexibility into their assignment schedules. For example, instructors can allow students to hand in one out of six assignments per semester up to 48 hours late or count only the best five out of six assignments. Alternatively, instructors can give out 12 assignments throughout the semester, ask students to hand in six, and then count only the best five.

4. Promote Multiculturalism in Your Classes

In the United States, the discourse about diversity is dominated by two perspectives— colorblindness and multiculturalism (Plaut et al., 2018). A colorblind perspective holds that differences between social groups should be ignored, whereas a multicultural perspective argues that differences between social groups should be attended to as diverse perspectives offer unique insight and strengths (Plaut, 2010). Past research has shown that exposure to multiculturalism (vs. colorblindness) increases racial and ethnic minorities' positive identification with their group, self-esteem, and perceived self-efficacy (Plaut et al., 2009; Verkuyten, 2005; Vorauer & Quesnel, 2017). In an educational context, exposure to multiculturalism increases agency, self-confidence, and classroom engagement of students of marginalized groups (Gurin et al., 2013; Grant & Sleeter, 2011; Nelson Laird et al., 2005). Birnbaum et al. (2020) showed that having racial and ethnic minority students read their schools' diversity statement promoting multiculturalism reduced the achievement gap between these students and their White peers. Instructors can promote multicultural beliefs in the classroom by assigning texts from authors from diverse backgrounds, inviting guest speakers from different backgrounds, simply stating how valuable perspectives from members of different social groups are, or adding a multicultural diversity statement to their syllabi (Brauer et al., 2021).

5. Upload Syllabi on a Departmental Website Before Registration Begins so That Students Can Do "Syllabus Shopping"

Existing evidence suggests that it is helpful for students when instructors specify in their syllabi what tasks students will have to fulfill in their classes and post their syllabi on the departmental website prior to the beginning of the registration period (Broadbent et al., 2007). This way, students can "syllabus-shop" and see whether certain disabilities prevent them from having a positive learning experience in the class. Even though

most universities have formal accommodation policies for disabled students, many courses still contain elements that hinder the success of disabled students (Goode, 2007). Disabled students often report having to proactively lobby for their accommodations and frequently need to "battle the system" to succeed in higher education. Allowing students to examine syllabi in advance of registering for classes will allow students with disabilities to avoid courses where their disability may prevent them from having a positive learning experience and identify courses where they may have to be more proactive in ensuring that they receive their specified accommodations.

6. Used Closed Captioning

Previous research suggests that captioning any videos shown in class or any pre-recorded lectures is beneficial for all students, but particularly those with a hearing impairment or other disabilities. Morris et al. (2016) examined the educational benefits of closed captions on video lectures for both disabled and non-disabled students by comparing course outcome data across two semesters. Lectures were prerecorded for both semesters, but during the second semester all video lectures were closed-captioned. Nearly all students reported they were helpful in some regard (5% slightly, 10% moderately, 35% very, 49% extremely). Further, many students reported that the closed captions were useful note taking tools. Similarly, Tisdell and Loch (2017) explored how useful closed captions were for learning for students completing an online first-year math course. Nearly all of the students (98%) broadly agreed that having captions on videos were a useful learning feature. Hearing impaired students and non-native English speakers particularly noted that including captions helped increase material retention and increased the clarity of what was being taught.

7. Increase Social Belonging by Making Sure Students Know Each Other and Informing Them That Social Difficulties Are Common and Transient

Walton and Cohen (2011) developed an intervention aimed at increasing the feelings of social belonging among students from marginalized backgrounds. Racial and ethnic minority students were exposed to material that presented social difficulties (e.g., not having any friends, feeling that one doesn't fit in) as a common and transient aspect of the college adjustment process. Participants were presented with a summary of the results of a university survey that showed that many students worried about whether they belonged in college during the difficult first year but grew confident in their belonging with time. Participants were then asked to write an essay about how their own experiences were similar to the results of the survey. Exposure to the social belonging intervention reduced grade disparities between students belonging to marginalized racial/ethnic groups and their peers, with the effects lasting for up to three years (see Figure 1). There are a variety of ways that instructors can increase feelings of social belonging among students. For example, instructors can ask students to present themselves to the individuals sitting next to them on the first day of class. They can form groups and ask students to learn each other's names and majors before beginning group work. Students will get to know more peers if the composition of the groups changes throughout the semester. Instructors can talk to students about difficulties adjusting to college (while framing them as common and transient) or have their students complete assignments similar to the above-mentioned intervention used by Walton and Cohen (2011).

8. Learn Your Students' Names

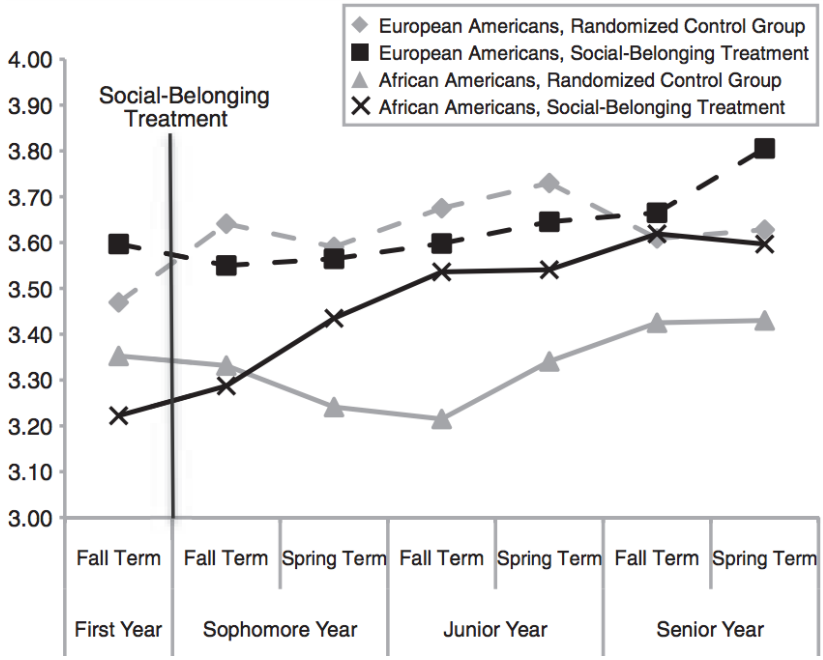
When instructors know their students' names, students are more motivated, attend class more frequently, are more attentive during lectures, participate more actively, learn more, chat less, are less likely to hand in assignments late, and view their instructor more positively (Brauer, 2011; Tanner, 2011; Tanner 2013; Williams et al., 2013). All students benefit from being identified as an individual by their professor, but students who wonder whether they "belong" in college benefit the most. For example, Cooper et al. (2017) showed that regardless of whether instructors actually knew students' names, students who thought that their instructor knew their names reported feeling more invested in the course, more comfortable talking to the instructor, more comfortable asking for help, and self-reported increased performance in the course. It turns out that with the right memorization techniques learning students' names is not that difficult, even for instructors with an average memory for faces and names. For a review of various memory techniques that will facilitate learning large number of student names see "20 Tips for Learning Student Names" (Ohio State University-University Center for the Advancement of Teaching; https://ucat.osu.edu/bookshelf/teaching-topics/shaping-a-positive-learning-environment/20-tips-learning-student-names/).

9. Establish a Social Norm of Inclusion

Establishing a norm of inclusion within the classroom can increase the social belonging of marginalized students and reduce achievement gaps. Using a poster or a short 5-minute video, Murrar et al. (2020) explored the impact of making pro-diversity norms salient (i.e., informing students that most of their

Figure 1

Effects of Increasing Social Belonging on the Achievement Gap



Note. From Walton, G. M., & Cohen, G. L. (2007). A question of belonging: Race, social fit, and achievement. *Journal of Personality and Social Psychology*, *92*(1), 82. Copyright 2014 by American Psychological Association.

peers endorsed diversity and strongly valued inclusion in university classrooms). The intervention caused all students, regardless of their background, to evaluate the classroom climate more positively and to reported more positive attitudes toward outgroups. Students from marginalized groups reported greater sense of belonging and better self-reported physical health. Most importantly, these students also reported that their peers treated them in a more positive and more respectful manner, suggesting that students from non-marginalized groups actually changed their behavior in the classroom. Additionally, exposure to the social norms intervention reduced the achievement gap in final course grades. Instructors can change students' perceptions of diversity-related norms by talking about the widespread support for diversity and inclusion at the university and share personal anecdotes suggesting that a numerical majority of students values diversity and rejects any form of exclusion and discrimination.

10. Include Pictures of Researchers When Presenting Empirical Results

Students seeing themselves represented among individuals held up as potential role models (e.g., successful scientists, professionals, etc...) has been shown to increase feelings of belonging for students from marginalized groups, lead to more positive educational outcomes, and even reduce stereotype threat (Covarrubias & Fryberg, 2015; Vecci & Želinský, 2019). Members of marginalized groups are rarely exposed to role models who share their social identity and if they are, the role models tend to be super achievers whose paths to success are difficult to emulate for them (e.g., Neil deGrasse Tyson, Steven Hawking). An easily implementable way of expanding students' role model pool is to display pictures of the scientists who conducted the research when presenting the results of empirical research in class. However, since many fields are dominated by White cisgender able-bodied men, it is critical that instructors work to decolonize and to diversify their course content before being able to show photos of the associated researchers. Many students benefit from the increased pool of potential role models, but women and members of marginalized groups are most likely to benefit—especially when the researchers on the pictures are also woman or a member of a marginalized groups.

11. Make Sure to Make Salient the Utility Value of the Material that You Are Covering

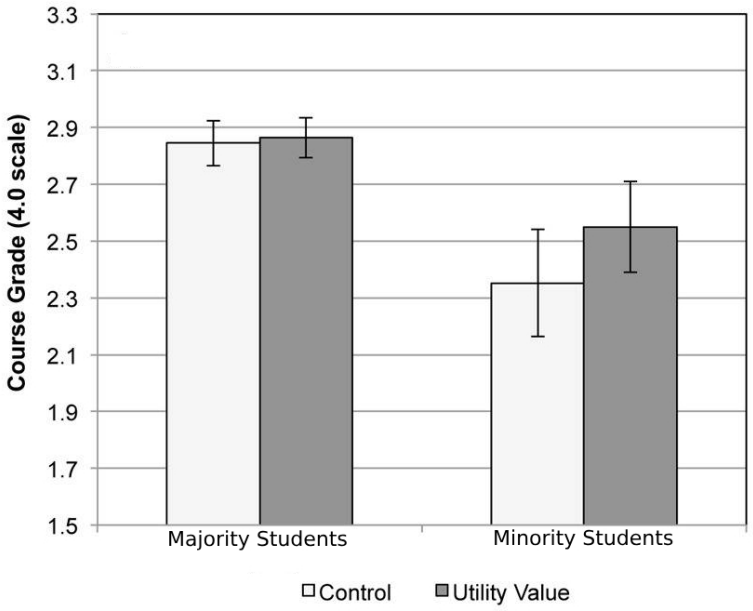
Utility value refers to the perceived real-life value of skills or information for accomplishing future goals beyond course completion (Harackiewicz & Priniski, 2018). Instructors explaining how students will be able to use the knowledge they learn in their class later in life is beneficial for all students, but will have the greatest impact for students from marginalized groups. Harackiewicz et al. (2016) asked students in an introductory biology class to complete three one-page essays exploring the relevance of a concept or issue covered in class to their own life (utility value assignment) or summarizing course materials (control assignment). At the end of the semester, students who had completed the utility value assignments saw an increase in course grades as compared to those that completed the control assignment prompt. The assignments were found to have the largest impact for members of marginalized groups and reduced the achievement gap by 61% (see Figure 2). Other research showed that utility value concepts are more beneficial when students generate them themselves rather than when these concepts are presented by an instructor (Canning & Harackiewicz, 2015).

12. Allow Students to Express What They Value and Why These Values Are Important for Them

Giving students the opportunity to communicate about their values is beneficial for all students, but particularly for students from marginalized backgrounds (Jordt et al., 2017). For example, Cohen et al. (2006) implemented a so-called "value affirmation exercise" where high school students first selected important personal values from a list of values and then wrote several paragraphs about why these values were important to them. Over the 2 years that Cohen et al. tracked the students, the GPA of students from marginalized backgrounds increased. Additionally, for the students from marginalized backgrounds, value affirmation helped maintain their sense of adequacy and interrupted the cycle in which early poor performance negatively influenced later performance and self-evaluation. Likewise, female students in an introductory college-level physics course who participated in a value affirmation exercise had better exam scores compared to female students who did not participate, leading to a reduction in the gap between men and women in the class (Miyake et al., 2010). Value affirmation is effective because it reduces stereotype threat (Taylor & Walton, 2011).

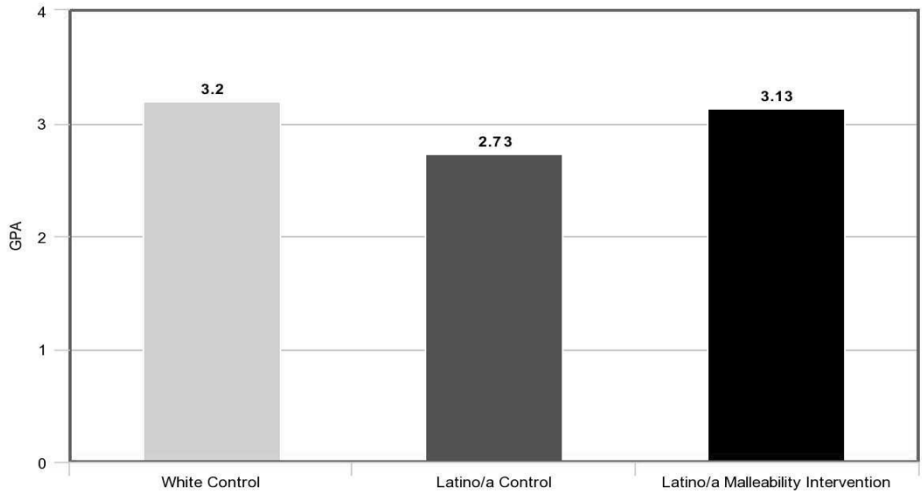
Figure 2

Effects of Making Utility Value Salient on the Achievement Gap



Note. From Harackiewicz, J. M., Canning, E. A., Tibbetts, Y., Priniski, S. J., & Hyde, J. S. (2016). Closing achievement gaps with a utility-value intervention: Disentangling race and social class. *Journal of Personality and Social Psychology*, *111*(5), 745. Copyright 2018 by American Psychological Association.

Figure 3
Effects of Fostering a "Growth Mindset" on the Achievement Gap



Note. From Broda, M., Yun, J., Schneider, B., Yeager, D. S., Walton, G. M., & Diemer, M. (2018). Reducing inequality in academic success for incoming college students: A randomized trial of growth mindset and belonging interventions. *Journal of Research on Educational Effectiveness*, *11*(3), 317-338. Copyright 2018 by Taylor & Francis Group.

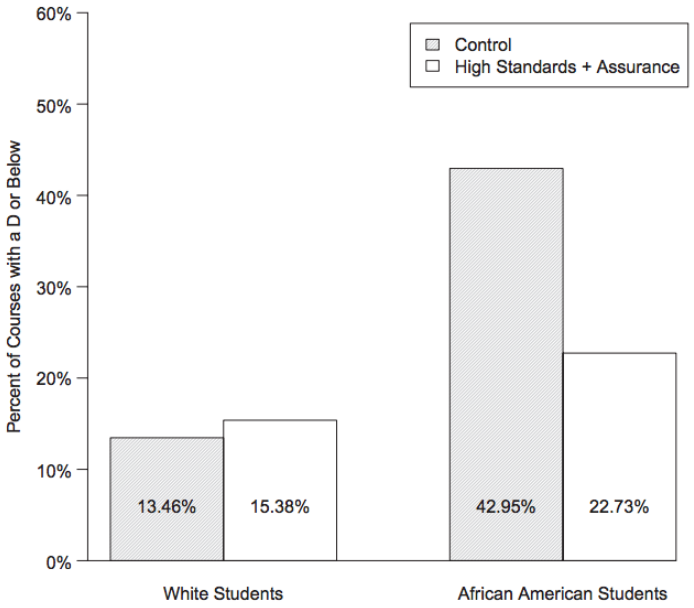
13. Foster a "Growth Mindset" by Presenting Intelligence as Malleable and Improvable Through Work and Effort

Yeager et al. (2016) examined the effects of inducing in students a "fixed mindset" (i.e., believing that abilities are fixed and cannot be changed) versus a "growth mindset" (i.e., believing that abilities can be improved by working on them). Students were presented with a brief article describing the malleability of intelligence that described the idea that the brain can get smarter the more it is challenged, like a muscle, and then applied that information to themselves by thinking of examples of how they had improved an ability through repeated practice. Students who were exposed to the growth mindset intervention finished their first year of high school with higher GPAs than students who were not exposed to the growth mindset intervention, and the achievement gap (measured here by GPA) between students from marginalized backgrounds and their peers was reduced by 41%. Additionally, students who were exposed to the growth mindset intervention tended to take more difficult classes than students who were not. Similarly, when Broda et al. (2018) implemented a growth mindset intervention to the majority of incoming first-year students at a large Midwestern public university, the GPAs of Latinx students at that university increased the semester after, and the achievement gap between White and Latinx students was reduced by nearly 72% (see Figure 3).

14. When Doing Group Work in Class, Assign Students to Groups Instead of Letting Students Form Their Own Groups

Project work in small groups can be motivating for students, as it allows for self-determination and satisfies students' need for social interaction. However, the groups should be created by the instructor and not by the students because when students choose their own groups, they tend to choose peers who are similar to themselves (Slavin, 1990). Students from marginalized backgrounds have reported that they are often not included when students in the classroom are asked to form groups themselves (Campbell & Brauer, 2021). Study groups formed outside of class also lead to the exclusion of women and students from marginalized backgrounds (Baker & Robnet, 2012). In order to promote inclusion, instructors can form groups randomly or make sure that groups have a diverse composition. Depending on group size and the frequency with which the composition of the groups is changed, instructors may want to ensure that more than one member of a marginalized community is part of a given group whenever possible because doing so will help students from marginalized groups feel less tokenized and less "spotlighted" (Etzkowitz et al. 1994).

Figure 4
Effects of Motivating Feedback on the Achievement Gap



Note. From Yeager, D. S., Purdie-Vaughns, V., Garcia, J., Apfel, N., Brzustoski, P., Master, A., ... & Cohen, G. L. (2014). Breaking the cycle of mistrust: Wise interventions to provide critical feedback across the racial divide. *Journal of Experimental Psychology: General*, *143*(2), 804. Copyright 2014 by American Psychological Association.

15. Make Sure That Students are Mutually Dependent on One Another for Success When Working in Groups

Group work is most beneficial for students when group members are mutually dependent on each other (Johnson et al., 2014). Instructors can achieve such interdependence in a variety of ways. They can provide group members with different pieces of information so that the group can complete the task only if the members successfully pool the information (a key idea in the so-called "jigsaw classroom"; Nolan et al., 2018). Instructors can randomly choose the student who reports the group work afterwards, rather than letting the group choose its speaker. Finally, they can assign one grade to the entire group, either for the task at hand or for the entire course if the group composition was the same throughout the semester. Interdependence has been shown to reduce prejudice and to promote positive feelings towards students from other social groups (Paluck & Green, 2009). Shaw et al. (2000) showed that task interdependence and outcome interdependence predicted individual group members' satisfaction with group work and better collective performance on assignments. Similarly, Hänze and Berger (2007) found that interdependent group work was associated with increased feelings of competence and better academic performance in physics, especially among students with a low academic sense of belonging.

16. Don't Necessarily Call on the First Student Who Raises Their Hand

Some students –especially students who belong to social groups that are underrepresented at their university – may find it difficult to speak up in class. Students may fear negative evaluation and as a result sometimes do not voluntarily participate (Young, 1990). As such, members of marginalized groups may often not be the first student to raise their hands to answer instructors' questions (White, 2011). They may need an extra few seconds to formulate the answer in their head. Instructors may choose the call on the third or fourth student who raises their hand, a teaching practice that should be announced the first day of class. When students who rarely talk in class participate, providing positive feedback or encouragement may lead to future participation in class. For example, instructors can frame errors as a productive part of the learning process and provide students with a full explanation regardless of the validity of their answer (Keith & Frese, 2008).

17. Never Ask a Student to Speak as the Representative of Their Social Group or Category

Singling out a student or asking them to speak up because they belong to a particular social group or category has detrimental effects on students' academic performance (Lord & Saenz, 1985). Students from marginalized backgrounds often report vacillating between feeling "invisible" in class or standing out as the "token minority" – both of which lead to reduced feelings of belonging in the classroom (Carter-Andrews, 2012). Even singling out students from marginalized groups for benevolent reasons (i.e., in order to provide help) has detrimental effects on their performance and belongingness (McLoughlin, 2005). Whenever the topic being discussed within a classroom is relevant to a social group that one or more of the students in the class belong to (e.g., Black students and classroom discussions about racism), instructors should avoid calling on a student to represent their entire social group. Instead, instructors can supplement the course material with information that contains the perspective of interest (e.g., a documentary, additional readings).

18. Abstain From Using Tests Where Speed is Critical for Success

Exams for which speed is crucial for success have poor "construct validity" (i.e., students' exam scores are a poor indicator of student learning) compared to exams with less time pressure (Lu & Sireci, 2007). When time limitations are imposed on students, the exam score capture to some extent other constructs that a priori the instructor does not want to measure. For example, speeded exams disproportionally affect students from marginalized backgrounds as well as students with disabilities by increasing stereotype threat (Gernsbacher et al., 2020). Additionally, speeded exams have a negative impact on the performance of individuals whose primary language is different from the language that the exam is being given in (Talento-Miller et al., 2013). Speeded exams can trigger test anxiety, which makes them poor measures of students' mastery of the material (Ashcraft & Moore, 2009). Exams where speed is not crucial for success are not only better indicators of student learning, they also contribute to reducing the achievement gap by eliminating stereotype threat.

19. Make Sure to Use Unbiased Exam Questions and Let Students Know That the Exam Questions They Will Encounter Are Unbiased

As mentioned earlier, students from marginalized groups tend to experience stereotype threat when taking exams (Steele & Aronson, 1995). One way to alleviate this threat is to inform students that there are no group-based disparities on a particular task or exam before they complete it (Boucher et al., 2012). For example, Spencer et al. (1999) examined if stereotype threat among female students can be reduced by telling the class that prior administrations of the math exam they were about to take had revealed no gender differences in performance. When students were informed that they were taking a "gender fair" math exam, female students performed equally well to male students taking the same exam. However, when female students were told before that the exam had been shown to produce gender differences, female students performed worse than male students. An easy way for instructors to implement this practice is to make effort to use unbiased exam questions (i.e., exam questions for which there were no group-based disparities in previous years) and communicate this fact to the students in their courses.

20. Provide Motivating Feedback

Previous research has shown that when providing critical feedback, instructors should provide assurance of the student's abilities and emphasize that they are being critical because they hold all students to a high standard. Yeager et al. (2014) investigated the impacts of different types of feedback. White and African American students received critical feedback from their teacher on an essay they had written for class accompanied either by neutral feedback (i.e., "I'm giving you these comments so that you'll have feedback on your paper.") or by feedback designed to motivate by informing the students that their teacher held them to a high standard and believed in their ability to reach those standards (i.e., "I'm giving you these comments because I have very high expectations and I know that you can reach them."). Students who received the motivating feedback were more likely to revise their essay, resubmit it to the instructor, and submit higher quality work compared to those who received neutral feedback, particularly for African American students. Additionally, for students exposed to the motivating feedback the achievement gap (measured here by course grades) between Black and White students was reduced by nearly 40% (see Figure 4).

Conclusions

While no one teaching practice will eliminate achievement gaps caused by structural inequalities, instructors can increase the inclusiveness, fairness, and equity of their classrooms though their actions and pedagogy. The adoption of inclusive teaching practices (especially evidence-based practices such as those outlined in this paper) hold promise for reducing the achievement gap. Note that the strategies and practices identified in this paper are in no way meant to encompass all possible methods for making classrooms more

inclusive and reducing the achievement gap. Rather, the strategies presented in this paper should be considered a starting point from which instructors can attempt to cultivate equitable classroom environments that promote the engagement and participation of all students. Instructors are also encouraged to think hard about systemic forms of injustice that contribute to inequalities in academic outcomes between students from different social groups and examine what they can do to reduce these structural barriers in their courses or at their university.

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