

Where to Place Demographic Items in a Social and Emotional Skills Assessment

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There is ample discussion in the literature concerning the ideal placement of demographic questions in survey research. Many argue that demographic questions should not be placed at the start of the survey because doing so can deter respondents and decrease response rates (Stoutenbrough 2008). In addition, asking individuals about their demographic characteristics at the end of a survey may be preferable because if asked at the start, individuals' subsequent performance or responses could be impacted (Gehlbach and Artino 2018). This has been documented in the area of cognitive testing in lab settings. Research shows that activating a stereotype can elicit behavior that is consistent with the activated stereotype (Steele and Aronson 1995). For example, priming women prior to a math test may activate the stereotype that women are relatively bad at math, thereby handicapping their performance (Spencer, Steele, and Quinn 1999). Notably, however, this effect seems to be limited to lab studies and is not an issue in real-world, high-stakes testing settings (Shewach, Sackett, and Quint 2019).

Little research has been done in areas related to social and emotional learning to confirm the hypothesis that making participants' demographic characteristics salient activates stereotype threats, which then impact item responses (Gehlbach and Artino 2018). In two studies outside the area of cognitive testing, one examining employees' ratings of workplace characteristics (Teclaw, Price, and Osatuke 2012) and one examining individuals' reporting of socially desirable behavior (Frick, Bächtiger, and Reips 1999), no mean-level differences were observed between responses given subsequent to versus prior to demographic questions. This suggests that placing demographic questions at the beginning of a survey does not impact responses.

In the current study, we extended this research to specifically examine whether placing demographic questions at the beginning of a survey impacts student responses to a social and emotional skills assessment.



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Key Findings

- Overall, we conclude that placing demographic questions at the start of a social and emotional skill assessment does not affect the nature of participant responses.
- Regardless of one's race, priming individuals with race had no effect on their social and emotional skill scores, and there was no indication that any stereotypes about their race were activated.
- Regardless of one's gender, priming individuals with gender had no effect on their social and emotional skill scores, and there was no indication that any stereotypes about their gender were activated.
- Priming individuals with their academic performance had no effect on their social and emotional skill scores, and there was no indication that any related stereotypes were activated.

Method

Participants were students who took the ACT® test on the national testing date in December 2019 and responded to an invitation to participate in research after completing the ACT. Participants were removed from the data file if they were missing two or more social and emotional skill items or if they had zero variance on these items, suggesting careless responding ($n = 278$).¹ The final sample reported on here includes 1,789 students. Demographic information was obtained from the ACT registration file. Race/ethnicity (hereafter referred to simply as race) was unknown for some students, and the sample sizes of some racial groups were too small to make meaningful comparisons, so not all groups were included in analyses concerning race. Included in the analyses below are Black/African American ($n = 181$), White ($n = 1,097$), Hispanic/Latino ($n = 195$), and Asian ($n = 110$) students, as well as students who identified as two or more races ($n = 89$). Male ($n = 482$) and female ($n = 1,247$) students were also compared. The 60 students who identified as something other than male or female or whose gender was unknown were not included in analyses pertaining to gender, given that they would constitute a small and heterogeneous group, rendering our dichotomous gender comparison noncomprehensive.

Students completed the survey in Qualtrics and were randomly assigned to one of five conditions:

1. report race at the start of the survey,
2. report gender at the start of the survey,
3. report race and gender at the start of the survey,
4. report GPA at the start of the survey, or
5. report no demographic information.

For analyses reported below, when race priming was the independent variable, groups 1 and 3 were combined and contrasted with groups 2, 4, and 5 combined. When gender priming was the independent variable, groups 2 and 3 were combined and contrasted with groups 1, 4, and 5 combined.²

The students completed Likert measures of six social and emotional skills including Sustaining Effort, Getting Along with Others, Maintaining Composure, Keeping an Open Mind, Social Connection (ACT 2020), and Growth Mindset (Dweck 1999), as well as items designed to gauge the extent to which stereotype threats were activated. Activation of stereotype threat was evaluated with two Likert measures assessing feelings of during-survey anxiety and cognitive load (Hart and Staveland 1988) and single questions about the extent to which the respondent was thinking about his or her race (or gender) while answering questions in the survey and how the respondent felt about his or her race (or gender) while answering questions in the survey.

Analyses and Results

To determine whether priming race or gender had an effect on social and emotional skill responses and whether this varied according to racial or gender group, we carried out two-way MANOVAs. For completeness, we report the main effects for race and gender here, but, given that that was not central to our research questions, we do not elaborate on those findings. We carried out a second two-way MANOVA with the stereotype threat activation items as the dependent variables. In addition to examining effects of priming race and gender, we carried out one-way MANOVAs to examine the effect of priming academic performance, specifically GPA. All findings are reported in Table 1.

Table 1. Effects of Priming Demographic Characteristics on Social and Emotional Skill Scores and Stereotype Threat Activation

	Wilks' Λ	<i>F</i>	<i>df</i>	<i>p</i>
Race / Social and Emotional Skills				
Race	.96	2.79	24, 5328	.00
Race Primed Condition	1.00	.80	6, 1527	.57
Interaction	.98	1.03	24, 5328	.43
Race / Stereotype Threat Activation				
Race	.91	8.63	16, 4195	.00
Race Primed Condition	1.00	1.16	4, 1373	.33
Interaction	.98	1.53	16, 4195	.08
Gender / Social and Emotional Skills				
Gender	.93	19.23	6, 1584	.00
Gender Primed Condition	1.00	.86	6, 1584	.52
Interaction	1.00	.90	6, 1584	.49
Gender / Stereotype Threat Activation				
Gender	.99	4.17	4, 1423	.00
Gender Primed Condition	1.00	.78	4, 1423	.54
Interaction	1.00	.22	4, 1423	.93
GPA / Social and Emotional Skills				
GPA Primed Condition	1.00	1.35	6, 1644	.23
GPA / Stereotype Threat Activation				
GPA Primed Condition	1.00	.30	2, 1483	.74

Note. Some *df* were non-integers and were rounded to the nearest whole number.

Discussion and Conclusions

A number of arguments have been put forward for and against placing demographic items at the start of surveys, though no studies to date have specifically examined whether responding to demographic items activates stereotype threats, which in turn impact responses to social and emotional learning assessments. Determining the effects of demographic item placement is important to ensure that participation rates and responses are not compromised. Gathering demographic information is vital for describing the study sample in order to evaluate generalizability. Moreover, often, the demographic variables themselves are key study variables—for instance, in cases of examining subgroup differences. Therefore, it would be advantageous to collect these data early in the study provided it does not jeopardize data quality.

In the current study, there were no significant main effects for any of the experimental conditions. Likewise, there were no significant interactions. That is, priming individuals with race or gender had no effect on their social and emotional skill scores, and there was no indication that any stereotypes about their race or gender were activated. This was true regardless of a respondent's race or gender. Priming individuals with their academic performance had no effect on their social and emotional skill scores, and there was no indication that any related stereotypes were activated. Thus, we conclude that placing demographic questions at the start of a social and emotional skill assessment does not affect the nature of participant responses.

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Notes

1. We assessed whether placement of demographic items had an impact on participants' willingness to complete the survey. There was no association between experimental condition and dropout, $\chi^2_{(4)} = .32, p = .99$.
2. Results were unchanged when examining each individual experimental group (i.e., groups 1, 2, 3, and 4) vs. the control group (i.e., group 5), indicating no confounding of the prime.

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