

An Examination of Ethnic Subgroup Score Differences Between Different Types of
Situational Judgment Tests

by

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ABSTRACT

Situational Judgment Tests (SJTs) are assessments growing in popularity for purposes of selecting new employees. A current issue is their proneness toward having significant differences in scores between ethnic subgroups, which may cause adverse impact against protected groups. The purpose of the present study was to explore and re-examine SJT components and types previously researched that may contribute to greater score differences between ethnic subgroups. Specifically, this study examined differences between an audio-enhanced SJT and a normal written and read SJT, in addition to SJTs assessing cognitive and interpersonal ability. After data screening, 31 African Americans were paired with 31 White participants on similar demographical characteristics for the testing of hypotheses. Data analyses indicated no significant differences were found between conditions and groups for each type of SJT. While this did not support the given hypotheses, they provide valuable insights for both researchers and practitioners regarding the construction of SJTs.

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CHAPTER I

Literature Review

Selection of personnel for organizations is an important process that all organizations must undertake carefully in order to ensure their future success. In order for organizations to attain this success, they must hire workers who have the knowledge, skill, and abilities, or work-related characteristics, that are needed to perform at optimal levels (Gatewood, Feild, & Barrick, 2019). A key component to this selection process is the use of valid instruments and measures that can accurately predict how a job applicant will actually perform on the job. It is intuitive that organizations want individuals with good judgment who can make the right choices and decisions for given situations. Unfortunately, determining what instruments can adequately predict how an applicant will perform on the job is not a simple process, but a rather challenging one with many obstacles (Gatewood, Feild, & Barrick, 2019). Many organizations are either not aware or do not understand there is an essential step to choosing and making use of selection instruments, which is validating the instrument itself. This process ensures the tests, tools, measures, simulations, predictors, and the like that are used for selection will reliably predict how well the individual will do, and whether the instrument will be legally defensible (Gatewood, Feild, & Barrick, 2019). One instrument that has shown promise regarding its general validity and reliability across many settings to predict job performance is the Situational Judgment Test.

Situational Judgment Tests (SJTs) are instruments growing in popularity for the selection of personnel and other organizational needs. Many organizations are realizing that SJTs are often valid predictors of performance (Roth, Bobko, & Buster, 2013). SJTs

are assessments which place the respondent in a situation where they are asked to select, rate, or respond with the best given answer for a given scenario (Weekly & Ployhart, 2005). Tests of this nature have been around for over 100 years and have been used in many settings. These include public school systems, college admissions, military branches, organizations, and more (Weekly & Ployhart, 2005).

In order to explain the current rise in popularity of SJTs, we have to examine the benefits of this assessment. When created using appropriate procedures, a SJT has the potential to predict whether applicants or job incumbents are able to perform at a level desired by an organization (Weekly & Ployhart, 2005). While there are other tests available to use for this purpose, such as a cognitive ability tests and personality measures, SJTs offer more incentives to warrant their use. In many studies, SJT scores produce greater incremental validity when compared to other forms of testing (Clevenger, Pereira, Wiechmann, Schmitt, Schmidt-Harvey, 2001; Weekly & Ployhart, 2005). One study examined over 100 SJT validity coefficients to determine the mean corrected validity of SJTs to be 0.34 (McDaniel, Morgeson, Finnegan, Campion, & Braverman, 2001). Lastly, mean subgroup differences have been found to have better outcomes for SJTs than other forms of testing (Weekly & Ployhart, 2005). Cognitive ability or personality tests do not generally perform as well as SJTs when it comes to mean subgroup differences (Weekly & Ployhart, 2005). However, SJTs being used today are not a guaranteed predictor of job performance and can lead to ethnic subgroup differences (Weekly & Ployhart, 2005). This can create legally problems if tests are challenged in court. However, SJTs generally outperform cognitive ability tests when it comes to legal defensibility, since cognitive ability tests often find mean subgroup

differences in scores between White and African American responses at approximately one standard deviation (Chan & Schmitt, 1997).

This topic brings us to our current issue facing the literature on SJTs, which is how to reduce levels of ethnic subgroup differences in scores. This is an important issue which must be addressed because ethnic subgroup differences give rise to adverse impact for protected groups when they are used by organizations (Weekly & Ployhart, 2005). It has been found that White participants outperform Black and Asian participants in large samples on SJTs assessing different knowledge categories, ranging from customer service to management and graduate admissions (Herde, Lievens, Jackson, Shalfrooshan, & Roth, 2020). This effect increases when SJTs scores are used to assess job applicant samples, rather than job incumbent samples. The effect size for subgroup differences among applicants has been found significant ($d = 0.66$), while meta-analytic findings indicated a smaller effect ($d = 0.38$) for job incumbents (Herde et al., 2020).

Given that organizational uses of SJTs include selection, placement, and promotions, it is key to determine whether ethnic minorities and protected groups are being placed in a disadvantage when they are administered as criteria. This issue will likely grow in relevance due to projected number of 405 million people migrating to live in other countries worldwide by 2050 (Lievens, Sackett, Dahlke, Oostrom, & De Soete, 2019). We now turn our attention to the literature on contributors to ethnic subgroup differences in SJT scores.

Cognitive Loading

Cognitive loading of a SJT is the extent to which the test is correlated with cognitive ability (Whetzel, McDaniel, & Nguyen, 2008). Thus, a SJT with high cognitive

loading has a larger correlation with a cognitive ability test than a SJT with low cognitive loading. There are many studies which have examined factors contributing to differences in scores between minority and non-minority groups, including the assessment of cognitive ability in SJTs (Dahlke & Sackett, 2017; Whetzel, McDaniel, & Nguyen, 2008). For example, Dahlke and Sackett (2017) conducted a meta-analysis focusing primarily on the association of cognitive ability with mean subgroup differences over a diverse array of measurements including SJTs. Similar to cognitive loading, cognitive ability saturation occurs when predictors are correlated with a measure of general cognitive ability. Using many types of predictors of job performance from the studies examined, they found significant correlations between cognitive-ability saturation and subgroup mean differences for scores between both Black and White respondents and Hispanic and White respondents. While they conclude cognitive saturation appears to be a significant predictor for the differences, they also conclude it is likely not the sole contributor (Dahlke & Sackett, 2017).

To help further support that cognitive loading is a significant contributor to ethnic subgroup differences in scores, another meta-analysis was conducted with a similar purpose, and found comparable results when focusing specifically on SJTs (Whetzel et al., 2008). Black-White differences were found to be highest when cognitive loading was highest and personality loading was lowest, as measured by correlations between them. The researchers broke down the factors leading to cognitive loading, and suggest knowledge instructions given within the SJT contained higher effect sizes for cognitive loading than both behavioral tendency and personality loadings such as emotional stability (Whetzel et al., 2008). Knowledge instructions involve asking respondents to

assess the effectiveness of responses (e.g., What is the best/worst response?). The researchers conducting the two aforementioned meta-analyses recommend reducing factors within a SJT that lead to cognitive loading in order to decrease ethnic subgroup differences in scores.

SJT Format

Since the rise in popularity of SJTs over 20 years ago, researchers have been examining alternative formats of SJTs to decrease ethnic subgroup mean score differences. There are many factors which can lead to greater differences in scores between subgroups for SJTs (Campion, Ployhart, & MacKenzie, 2014). A consistent issue occurring in the literature has been trying to find a SJT that is both valid and does not lead to subgroup differences (De Soete, Lievens, Oostrom, & Westerveld, 2013). It is important to consider each component during construction of an SJT due to its susceptibility to cognitive loading and potential to cause adverse impact for protected groups (Campion et al., 2014). Campion et al. analyzed many components from over 50 studies, and they suggest considering the number of dimensions, content, constructs, response medium, response format, instruction format, number of items, situation and response development, key development, scoring method, scenario presentation, and stimulus medium as relevant contributors.

New research has been investigating ways of improving criterion-related validity, scale validity, face validity, construct validity, and more (McDaniel, Psotka, Legree, Yost, & Weekley, 2001; Weng, Yang, Lievens, & McDaniel, 2018). Researchers are now examining whether different scoring methods, such as raw and standardized consensus will lead to greater differences in scores between ethnic subgroups (De Leng et al., 2016).

Raw consensus scoring involves calculating the distance between the applicant's rating and the mean rating of the reference group using the raw data, and standardized consensus involves computing the distance after conducting a within-person z standardization, in order for each applicant to have a zero mean and standard deviation of one across SJT items. They have found scoring methods contributes to differing levels of subgroup scores, and each scoring method analyzed led to significant differences between protected and non-protected ethnic groups (De Leng et al., 2016). The raw consensus method was found to have the lowest difference between protected and non-protected ethnic groups (De Leng et al., 2016) demonstrating that one specific change in how an SJT is scored can reduce differences between ethnic subgroups. Other specific components which may contribute to criterion-related validity and subgroup differences are response format (e.g., rank, rate, most/least; Arthur et al., 2014), response mediums (Lievens et al., 2019), and high versus low fidelity responses or simulations (Weekley, Hawkes, Guenole, & Ployhart, 2015). Researchers have even found cognitively loaded audiovisual SJTs with no ethnic subgroup score differences (Lievens et al., 2019), which is a unique and interesting finding worth investigating.

Initial studies found lower subgroup differences in scores when a video-based SJT was administered, when compared to a text-based SJT (Chan & Schmitt, 1997). Cognitive ability was less associated with video mediums. Furthermore, when examining reading comprehension within text-based SJTs, it has been found to contribute to higher cognitive loading and subgroup differences in scores (Chan & Schmitt, 1997). However, subsequent research has not consistently replicated these findings. A study analyzing differences between text-based SJTs and multimedia SJTs found similarly high

differences between ethnic subgroups (Bardach, Rushby, Kim, & Klassen, 2020). In the Bardach, Rushby, Kim, and Klassen (2020) study, a webcam was used to record participant responses for the multimedia format. Therefore, it would be beneficial for future research to determine which specific components might contribute to either cognitive loading or to ethnic subgroup differences in scores. Lievens and Sackett (2006) examined differences between video-based and written SJTs measuring interpersonal ability. Video based SJTs were significantly less correlated to cognitive ability than the written SJTs. Using SJT items assessing interpersonal skills, rather than cognitive ability, appears to be a promising solution to dealing with the current dilemma. However, Lievens and Sackett (2006) were unable to examine these effects in relation to ethnic subgroup differences, since most of their participants were white. It appears further research is needed to determine if these effects also translate to lower subgroup differences, which may be possible due to the differing levels of association with cognitive ability. This leads to our current study, which examined the aforementioned components and whether they will contribute to differences in SJT scores between ethnic subgroups.

The Current Study

There is currently no definitive solution to the dilemma of differing levels of ethnic subgroup scores in SJTs. The current study examined components previously suggested as having potential in reducing ethnic subgroup differences in SJT scores, in an effort to help diminish the possibility of adverse impact in organizational settings. This study contributes to the literature by examining specific components at the same time which to our knowledge has not been previously conducted.

Audio-Enhanced SJTs Versus Written SJTs

There is ample research suggesting there are differences in ethnic subgroup scores that can be found using different formats of SJTs, including written, web, audio, and multimedia SJTs (Chan & Schmitt, 1997; Lievens et al., 2019). The research on SJT formats has used many different formats for the situational prompts but have not isolated the unique contribution that audio information may have when added to the situational prompts and options of traditional text based SJTs. More research is still needed to clarify the specific components of the SJT format which may or may not determine significant differences between the groups (Bardach et al., 2020). We examined SJT subgroup score differences between two types of SJTs. One was typed and read by participants, and the other was typed and read by an audio player. This is different from previous studies, because we used the Read Aloud software in Microsoft Word to create the audio-enhanced SJTs, to help remove the obstacle of reading comprehension. Reading comprehension has been found to be correlated with cognitive ability in SJTs (Chan & Schmitt, 1997). To our knowledge no other study has used this software, which both read with a computer voice and highlighted the words as they were being read to create our audio-enhanced SJTs. Thus, the first research question given: Will there be a difference in ethnic subgroup SJT scores between normal written and read and audio enhanced formats?

Hypothesis 1: There will be a difference between ethnic subgroup scores for the normal written and read SJT and the audio enhanced SJT (Chan & Schmitt, 1997; Lievens et al., 2019).

Interpersonal Ability Versus Cognitive Ability

While there is ample evidence suggesting cognitive loading significantly leads to greater ethnic subgroup differences in SJT scores (Dahlke & Sackett, 2017; Whetzel et al., 2008), more research should be conducted to compare differences in scores between SJT formats while assessing interpersonal ability and cognitive ability (Lievens & Sackett, 2006). While this area in the literature has been researched considerably (Dahlke & Sackett, 2017; Whetzel et al., 2008), there are no studies which have examined differences in interpersonal and cognitive ability for the types of SJTs we used. Our study is unique due to using an academic domain SJT to represent cognitive ability, and we additionally used an SJT assessing ability to facilitate teamwork to represent interpersonal ability. Therefore, we hoped these unique measures would provide valuable insights in addition to our previous research question. We examined these differences in this study. Thus, the second research question proposed: Will there be a difference in ethnic subgroup SJT scores between questions assessing interpersonal ability (e.g., personality characteristics) and cognitive ability for the normal written and read SJT and the audio enhanced SJT?

Hypothesis 2a: There will be a difference in ethnic subgroup SJT scores for questions assessing interpersonal ability for both the normal written and read SJT and the audio enhanced SJT (Lievens & Sackett, 2006).

Hypothesis 2b: There will be a difference in ethnic subgroup SJT scores for questions assessing cognitive ability for both the normal written and read SJT and the audio enhanced SJT (Lievens & Sackett, 2006).

CHAPTER II

Method

Participants

Participants consisted of 209 undergraduate and graduate students enrolled in a university in the Southeastern United States. They were compensated with course credit for completion of the study. A consent form was completed by those who choose to participate in the study before it began. The study was a between-subjects design, with participants placed randomly into one of two groups for the two different formats of SJTs. The control group completed the normal, written and read SJTs, and the experimental group completed the audio enhanced SJTs. The study was also cross-sectional, and ethnic demographical information was collected from participants. Statistical power analyses determined a sample size of approximately 200 (100 participants for each of the two conditions) was appropriate. An effect size coefficient of 0.52 was used, which was determined by the average of effect sizes found by a previous study by Herde et al. (2020).

Materials

The measures included two SJTs. One was non-cognitive and assessed interpersonal ability, and the other was used to assess cognitive ability. These SJTs were administered to every participant. The control group completed both SJTs in the normal, web-read format, and the experimental group completed them in the audio enhancement format. The SJTs' scenario questions and response choices were read and highlighted by the Read Aloud software in Microsoft Word to create the audio enhanced SJTs. Scenarios and response choices were recorded through a video of the software highlighting and

reading the words. The software highlighted words as they were being read by a computer voice. Participants clicked the play button for the video for each item. The scenario and responses did not appear until the play button was used. Participants could replay the recording and visual in full if needed once the recording was completed. The normal web-read SJT did not include the audio recording. All participants were randomly split into either the control group or the experimental group.

SJT Assessing Cognitive Ability

One SJT was used to assess cognitive ability, and it focused on an academic domain. Since university students were participants, it was beneficial to include an academic setting to assess this construct. Students had some academic experience to relate to when completing the academic domain SJT (Salter, 2009). This SJT was appropriate for assessing cognitive ability because judgment and decision making in school can be dependent upon cognitive ability and less dependent upon non-cognitive abilities such as personality and interpersonal ability.

The academic-oriented SJT was a 24-item focusing on academic situations, and it was initially developed by Bess (2001). It was then adapted to its current state by Salter (2009). In the study by Salter, Cronbach's alpha reliability coefficient after corrections was .65. For the current study, the measure was updated to use a rank order response format, where participants were asked to rank options from what they would most likely do to what they would least likely do for the given scenarios. The scoring for the SJT was also updated to reflect the rank ordering format. If a participant ranked each of the four responses in the correct order for an item, they received the maximum score possible for that item. For each response they incorrectly ordered for an item, the maximum number

of points was reduced for that item. If they did not get label a single response correctly for an item, they received zero points for that item. Scores for each item were summed to create the total score for each participant. After implementing these changes for the SJT and for the present study, Cronbach's $\alpha = .72$. The full measure can be found in Appendix

A. An example item is:

An exam is approaching in one of your classes. The class has been difficult but interesting for you so far. In studying for your exam, you should:

- A. carry books with you to various places and try to study in-between other obligations
- B. find that often times there are too many interruptions to study consistently before an exam
- C. want to start studying early but find that other things end up getting done instead
- D. schedule blocks of time to study in one location a week or two before the exam

SJT Assessing Interpersonal Ability

One SJT was used to assess interpersonal ability, and it is the Teamwork Processes Situational Judgment Test (Steffensen, 2014). It is composed of ten items which involve judgment in facilitation of teamwork activities. Findings indicate this is a valid and reliable instrument, with Cronbach's alpha values ranging from .74 to .89 across three studies (Steffensen, 2014). This SJT is appropriate for assessing interpersonal ability due to its use of judgment involving social and interpersonal situations. Since the primary focus of this SJT is on teamwork facilitation, cognitive

loading will be less likely to be at a similar level as the two previous SJTs. This measure was also found to only have a small association with cognitive ability when correlated with other cognitive ability measures ($r = .25$) (Steffensen, 2014). For the current study, the measure was updated to use a rank order response format, where participants ranked the options from *very likely* to choose to *very unlikely* to choose for each scenario. Due to this update from a rate response format to a ranked order response format, mean score differences in the current study were different from those found in the initial SJT validation study by Steffensen (2014). The full measure can be found in Appendix C. An example item is:

You are a part of a team that has been working on a project for six months. It has become apparent to the team that the original strategy set for completing the project is not working out. The team is unsure of how to proceed. Please rate each response choice on how likely you would be to take the action(s):

1. Suggest that a new strategy should be created and implemented in order to better complete the team's task.
2. Continue with the current strategy but try to fix the areas of the plan that need improving.
3. Use the experience to highlight the importance of having alternative strategies for when problems arise.
4. Criticize the current strategy and the lack of group productivity on the team task.
5. Develop an alternative strategy for the team and present it at the next meeting for discussion.

6. In front of the team's external supervisor, place the responsibility of the failed strategy on the other team members.

Procedure

First, participants were briefed on the study, including its purpose and the range of time it would likely take for completion. They were then asked to complete the consent form before beginning the study. Before beginning the SJTs, participants were asked to respond to measures that would assess the participants' vocabulary and related concepts. When the participants began the SJT sections, participants in both conditions (control and experimental) first completed the academic domain SJT assessing cognitive ability. Second, they completed the SJT assessing interpersonal ability. Once completed, participants were thanked for their participation in the study.

The full questionnaire containing the SJTs were administered through Qualtrics. Participants were able to complete the survey online at a time of their choosing for the period of months it was open. Regarding the audio enhanced SJTs, audio recordings with the visual were created using an external software program, and each audio-visual item was uploaded or linked to Qualtrics for each item.

CHAPTER III

Results

Data Screening

There was an initial total of 209 participants who started the study. The first data screen involved removing participants who did not select either African American/Black or Caucasian/White as their race. After this was completed, participants that indicated we should not use their data for the study were removed based upon their response to a question at the end of the study which asked participants whether they believed the researchers should (or should not) use their responses. Next, we removed participants who were assigned to the audio SJT (experimental) condition that indicated they did not watch the videos in full or did not increase the volume so they could hear the audio in the videos. There were additional questions included in the study at spaced intervals which asked participants whether or not they were watching the videos in full, in addition to questions asking whether their audio was loud enough to hear the video. Once these steps were completed, 123 participants remained, with 31 individuals who indicated themselves as African American/Black and 92 individuals who indicated themselves as Caucasian /White.

In order to reduce confounds or extraneous variables that could affect the results of the study or harm internal validity, the 31 participants who indicated themselves as African American/Black were paired with 31 of the 92 participants who indicated themselves Caucasian/White, using similar or matching responses to demographical questions. Specifically, the participants were matched on answers to questions regarding their indicated gender, level or year in college, and age in years. Once the participants

were paired together, the participants who indicated themselves as Caucasian/White and were not paired were removed from the study. The total number of participants after the data screening process was 62 (31 who indicated African American/Black and 31 who indicated Caucasian/White). See Table 1 for detailed demographic information on the 62 matched participants and the 61 participants who were not matched.

Table 1
Demographic Statistics for Matched and Not Matched Participants

| Match Group | Gender | College Level | <i>N</i> | Age (Years) | <i>N</i> (Age)* |
|----------------------------|--------|---------------|----------|----------------|-----------------|
| <i>Black (Matched)</i> | | | | | |
| | Men | Freshman | 2 | 18-19 | 4 |
| | | Sophomore | 6 | 20-21 | 1 |
| | | Junior | 1 | 22-23 | 1 |
| | | Senior | 0 | 24-25 | 2 |
| | | Graduate | 0 | 26+ | 1 |
| | Women | Freshman | 11 | 18-19 | 11 |
| | | Sophomore | 4 | 20-21 | 7 |
| | | Junior | 1 | 22-23 | 1 |
| | | Senior | 5 | 24-25 | 1 |
| | | Graduate | 0 | 26+ | 1 |
| <i>White (Matched)</i> | | | | | |
| | Men | Freshman | 2 | 18-19 | 5 |
| | | Sophomore | 4 | 20-21 | 2 |
| | | Junior | 2 | 22-23 | 0 |
| | | Senior | 1 | 24-25 | 1 |
| | | Graduate | 0 | 26+ | 1 |
| | Women | Freshman | 11 | 18-19 | 12 |
| | | Sophomore | 5 | 20-21 | 6 |
| | | Junior | 1 | 22-23 | 1 |
| | | Senior | 5 | 24-25 | 1 |
| | | Graduate | 0 | 26+ | 2 |
| <i>White (Not Matched)</i> | | | | | |
| | Men | Freshman | 9 | 18-19 | 12 |

| Match Group | Gender | College Level | <i>N</i> | Age (Years) | <i>N</i> (Age)* |
|-------------|--------|---------------|----------|----------------|-----------------|
| | | Sophomore | 9 | 20-21 | 5 |
| | | Junior | 3 | 22-23 | 5 |
| | | Senior | 8 | 24-25 | 0 |
| | | Graduate | 0 | 26+ | 4 |
| | Women | Freshman | 7 | 18-19 | 7 |
| | | Sophomore | 4 | 20-21 | 7 |
| | | Junior | 7 | 22-23 | 7 |
| | | Senior | 5 | 24-25 | 0 |
| | | Graduate | 8 | 26+ | 6 |

**Note:* The *N* (Age) column shows the number of participants which fall into each age category from the corresponding Age (Years) column.

Testing for Hypotheses

See Table 2 for descriptive statistics. A familywise alpha of .05 was used for all analyses. Hypotheses were assessed using a multivariate analysis of variance (MANOVA). The MANOVA indicated the scores for the normal written and read SJT and the audio enhanced SJT did not differ between ethnic subgroups, Wilk's $F(2, 57) = 0.67, p = .935$. In addition, this analysis indicated scores for questions assessing interpersonal ability for both the normal written and read SJT and the audio enhanced SJT did not differ between ethnic subgroups, $F(1) = 0.14, p = .714$. Lastly, this analysis indicated scores for questions assessing cognitive ability for both the normal written and read SJT and the audio enhanced SJT did not differ between ethnic subgroups, $F(1) = 0.00, p = .985$. See Table 3 for Tukey pairwise comparisons.

Table 2

Descriptive Statistics for SJT Scores Across SJT Types, Conditions, and Race/Ethnicity

| SJT Type | Condition | Race/Ethnicity | <i>N</i> | <i>M</i> | Standard Error |
|----------------------|-----------|----------------|----------|----------|----------------|
| <i>Cognitive</i> | | | | | |
| | Normal | White | 16 | 90.78 | 4.72 |
| | | Black | 16 | 89.63 | 4.72 |
| | Audio | White | 15 | 81.07 | 4.88 |
| | | Black | 15 | 82.00 | 4.88 |
| <i>Interpersonal</i> | | | | | |
| | Normal | White | 16 | -12.63 | 2.81 |
| | | Black | 16 | -8.13 | 2.81 |
| | Audio | White | 15 | -7.13 | 2.90 |
| | | Black | 15 | -9.53 | 2.90 |

Table 3

Tukey Pairwise Comparisons for SJT Scores Across SJT Types, Conditions, and Race/Ethnicity

| | | | 95% Simultaneous Confidence Interval | |
|----------------------|-----------------|----------|--------------------------------------|-------|
| Comparison | Mean Difference | <i>p</i> | Lower | Upper |
| <i>Cognitive</i> | | | | |
| Black – White | 0.09 | .99 | -9.51 | 9.70 |
| Normal – Audio | 8.47 | .08 | -1.14 | 18.07 |
| <i>Interpersonal</i> | | | | |
| Black – White | 1.05 | .71 | -4.66 | 6.76 |
| Normal – Audio | 2.04 | .48 | -7.75 | 3.67 |

CHAPTER IV

Discussion

The purpose of the present study was to examine the components previously suggested as having potential in reducing ethnic subgroup differences in SJT scores, in order to help find ways of diminishing the possibility of adverse impact in organizational settings when SJT scores are used. While there are many studies which have examined similar attributes and aspects of testing (Weekley & Ployhart, 2005; Whetzel et al., 2008), limited if any research has examined this particular format of audio-enhanced SJTs, in addition to assessing both cognitive ability and interpersonal ability SJTs. The findings from the current study indicated the proposed hypotheses were not supported. Ethnic subgroup score differences were not influenced by the type of SJT format used, including audio enhanced and normal written and read. It is worth noting that ethnic subgroup differences were not found in the two SJTs overall. It stands to reason, therefore, that the impact of format would have little impact on ameliorating ethnic differences that did not manifest in the study. The type of ability assessed by the SJT, including cognitive and interpersonal, was also found to not influence ethnic subgroup score differences.

This study sought to find a SJT format that would have led to less differences in scores between ethnic subgroups. Since reading comprehension has been linked to cognitive ability (Chan & Schmitt, 1997), removing this barrier with the use of the audio enhanced SJT was previously thought to lead to useful and unique findings. While there is ample research suggesting video or audio formatted SJTs can reduce these differences over normal written and read SJTs (Chan & Schmitt, 1997; Lievens et al., 2019), the

current study did not replicate these findings. This may have been due to the specific format used for the audio enhanced SJT, which involved the Read Aloud software in Microsoft Word. Previous research has not used this feature of the Microsoft Word software, so it is possible this could have significantly influenced the results. In addition, both format conditions were administered with the use of videos. The audio enhanced condition used videos with audio, and the normal written and read condition used the same videos with no sound. The similar format for both conditions may have led to no significant differences between conditions additionally. Therefore, the findings regarding no differences being found between the ethnic subgroups among the differing formats is primarily thought to be due to using the Read Aloud software and the similarities of the videos in both conditions, which potentially confounded the results. In addition, the sample size used in this study was low, which likely impacted these findings. A greater sample size, if used, may lead to different findings. The results are however worth considering, due to the fact they suggest certain SJT components may not contribute to helping reduce differences in ethnic subgroup scores.

These findings also contrast with previous research findings regarding SJTs measuring cognitive ability (Dahlke & Sackett, 2017; Whetzel et al., 2008). Meta-analyses have indicated cognitive ability being assessed in SJTs is linked to greater ethnic subgroup differences in scores between African Americans and Whites. Therefore, it was surprising to see the findings did not replicate this commonly found outcome. This may have been due to extraneous factors that could have influenced the results, including threats to internal and statistical conclusion validity. In addition, the SJT used for assessing cognitive ability had lower than desired reliability estimates, which could have

influenced these findings. The SJTs were also updated to use a rank order format, which could have also lowered their reliability and validity, influencing the study's findings. Thus, the findings regarding no differences being found between the ethnic subgroups for the cognitive ability SJT is primarily thought to be due to low reliability and validity from the SJT, lower cognitive loading than expected for the SJT, and a low sample size used for the study.

Practical Implications

This study provides insights for professionals in organizations regarding the use of SJTs and issues relating to adverse impact. Regarding SJT format, the use of audio enhancements over normal written and read SJTs may not provide any decrease in score differences between African American and White job applicants and incumbents. The time and resources needed to invest in updating a normally formatted SJT to be audio enhanced may not be worth this investment. While our findings indicated the more cognitive ability focused SJT (the academic SJT) did not lead to significant differences in scores between African Americans and Whites, this should not suggest using SJTs and other assessments measuring cognitive ability will not lead to issues regarding adverse impact. Cognitive ability in assessments has been found in meta-analyses and ample research studies to lead to increases in score differences between the two ethnic subgroups (Dahlke & Sackett, 2017; Gatewood, Feild, & Barrick, 2019). Therefore, this study alone should not suggest the use cognitive ability SJTs. Regarding SJTs assessing interpersonal ability, this study may provide support for the use of this type of SJT in the workforce with less concern over adverse impact issues than using cognitive ability SJTs. Past research also supports this consideration (Lievens & Sackett, 2006).

Limitations

There are limitations of this study worth noting. The study's sample was college students, which may not be representative of the population being administered SJTs in work settings. Construct validity is difficult to ensure due to the limited access to SJTs found to be either loaded with cognitive ability or interpersonal ability. The chosen SJTs for this study may have not been the best fit overall, and they relied on presumption they covered these domains adequately. Regarding their reliability, Cronbach alpha coefficients previously found were lower than desired for the SJT assessing cognitive ability. Construct validity may also have been harmed by how respondents interpreted or answered the demographical question inquiring their ethnicity. They may have perhaps seen themselves fall into two categories, rather than one, and not answered the question or not answered in similar ways to the other participants.

Another limitation of the study is the research design, which is between-subjects and cross-sectional. Participants who completed the normal written and read SJTs will be different than those who completed the audio enhanced SJTs, potentially biasing the results. Data was gathered over one-time interval, rather than multiple times with the inclusion of pre and posttests, which would have helped ensure internal validity. Statistical conclusion validity was at risk due to the low number of African/African American individuals who participated in the study; the participation rate from this group likely harmed the overall statistical power of the study. Finally, the scoring, response format, and length of scenarios were also different between the cognitive ability SJT and the interpersonal ability SJT, which may have confounded findings and effects.

Future Directions

While this study contributes to the literature on SJTs and the ethnic subgroup score differences they may produce in some situations, more research is needed to clarify which SJT components or factors influence score differences that can lead to adverse impact. Future researchers should examine SJT formats which are commonly used in the workplace to screen applicants or make other important decisions. Furthermore, additional studies are needed to examine whether video, audio, online and other types of formatted SJTs can contribute to more or less ethnic subgroup score differences, while analyzing differences in cognitive ability loadings and interpersonal ability loadings among the different formats. Future studies should include a measure of cognitive ability in order to determine whether cognitive ability is being adequately assessed by the measures used. There should also be questions asking participants about their perceptions of the test to better understand potential confounds that may negatively influence the results of the study. More research should be conducted on the promising SJTs assessing interpersonal ability, since this study and previous research indicated they did not have significant differences in ethnic subgroup scores (Lievens & Sackett, 2006), which may benefit organizations and protected classes.

References

- Arthur, W., Jr., Glaze, R. M., Jarret, S. M., White, C. D., Schurig, I., & Taylor, J. E. (2014). Comparative evaluation of three situational judgment test response formats in terms of construct-related validity, subgroup differences, and susceptibility to response distortion. *Journal of Applied Psychology, 99*, 535-545.
- Bardach, L., Rushby, J. V., Kim, L. E., & Klassen, R. M. (2020). Using video- and text-based situational judgement tests for teacher selection: A quasi-experiment exploring the relations between test format, subgroup difference, and applicant reactions. *European Journal of Work and Organizational Psychology, 1-14*.
- Bess, T. L. (2001). Exploring the dimensionality of situational judgment: Task and contextual knowledge. Unpublished doctoral dissertation. Blacksburg, Virginia: Polytechnic Institute and State University.
- Campion, M. C., Ployhart, R. E., & MacKenzie, W. I. (2014). The state of research on situation judgment tests: A content analysis and directions for future research. *Human Performance, 27*, 283-310.
- Chan, D., & Schmitt, N. (1997). Video-based versus paper-and-pencil method of assessment in situational judgment tests: Subgroup differences in test performance and face validity perceptions. *Journal of Applied Psychology, 82*, 143–159.
- Clevenger, J., Pereira, G. M., Wiechmann, D., Schmitt, N., Schmidt-Harvey, V. (2001). Incremental validity of situational judgment tests. *Journal of Applied Psychology, 86*, 410-417.

- Dahlke, J. A., & Sackett, P. R. (2017). The relationship between cognitive-ability saturation and subgroup mean differences across predictors of job performance. *Journal of Applied Psychology, 102*, 1403–1420.
- De Leng, W. E., Stegers-Jager, K. M., Husbands, A., Dowell, J. S., Born, M. P., & Themmen, A. P. N. (2016). Scoring method of a situational judgment test: Influence on internal consistency reliability, adverse impact and correlation with personality? *Advances in Health Science Education, 22*, 243–265.
- De Soete, B., Lievens, F., Oostrom, J., & Westerveld, L. (2013). Alternative predictors for dealing with the diversity–validity dilemma in personnel selection: The constructed response multimedia test. *International Journal of Selection and Assessment, 21*, 239–250.
- Gatewood, R. D., Feild, H. S., & Barrick, M. R., 2019. *Human resource selection* (9th ed.). New York, New York, USA: Wessex Press.
- Herde, C. N., Lievens, F., Jackson, D. J. R., Shalfrooshan, A., & Roth, P. L. (2020). Subgroup differences in situational judgement test scores: Evidence from large applicant samples. *International Journal of Selection and Assessment, 28*, 45-54.
- Lievens, F., & Sackett, P. R. (2006). Video-based versus written situational judgement tests: A comparison in terms of predictive validity. *Journal of Applied Psychology, 5*, 1181-1188.
- Lievens, F., Sackett, P. R., Dahlke, J. A., Oostrom, J. K., & De Soete, B. (2019). Constructed response formats and their effects on minority–majority differences and validity. *Journal of Applied Psychology, 104*, 715–726.

- McDaniel, M. A., Morgeson, F. P., Finnegan, E. B., Campion, M. A., & Braverman, E. P. (2001). Use of situational judgement tests to predict job performance: A clarification of the literature. *Journal of Applied Psychology, 80*, 730-740.
- McDaniel, M. A., Psotka, J., Legree, P. J., Yost, A. P., & Weekley, J. A. (2011). Toward an understanding of situational judgment item validity and group differences. *Journal of Applied Psychology, 2*, 327-336.
- Roth, P. L., Bobko, P., & Buster, M. A. (2013). Situational judgment tests: The influence and importance of applicant status and targeted constructs on estimates of Black □ White subgroup differences. *Journal of Occupational and Organizational Psychology, 86*, 394–409.
- Salter, N. P. (2009). *A multitrait -multimethod approach to isolating situational judgment from situational judgment tests* (Order No. 3370995). Available from ProQuest Dissertations & Theses Global.
- Steffensen, D. S., Jr. (2014). *Validation of a situational judgment test measuring teamwork processes* (Order No. 1564756). Available from ProQuest Dissertations & Theses Global.
- Weekley, J. A., Hawkes, B., Guenole, N., & Ployhart, R. E. (2015). Low-fidelity simulations. *Annual Review of Organizational Psychology and Organizational Behavior, 2*, 295-322.
- Weekly, J. A., Ployhart, R. E. (2005). *Situational judgement tests: theory, management and application* (1st ed.). Portland, Oregon, USA: Psychology Press.

- Weng, Q., Yang, H., Lievens, F., & McDaniel, M. A. (2018). Optimizing the validity of situational judgement tests: The importance of scoring methods. *Journal of Vocational Behavior, 104*, 199-209.
- Whetzel, D. L., McDaniel, M. A., & Nguyen, N. T. (2008). Subgroup differences in situational judgment test performance: A meta-analysis. *Human Performance, 21*, 291–309.

APPENDICES

APPENDIX A: ACADEMIC-ORIENTED SITUATIONAL JUDGMENT TEST

Each of the following sections presents hypothetical problem situations and asks you how you would respond. Problems in Section I are hypothetical academic situations, and problems in Section II are hypothetical job situations. Each problem has four to five alternative actions that might be taken to deal with the problem. You are to rank the options you would perform from *most likely* to perform to *least likely* to perform. Please indicate the response option you would *most likely* perform and list each option in order of how likely you would perform them until the *least likely* to perform response option is chosen for each situation.

1. An exam is approaching in one of your classes. The class has been difficult but interesting for you so far. In studying for your exam, you would:
 - A. carry books with you to various places and try to study in-between other obligations
 - B. find that often times there are too many interruptions to study consistently before an exam
 - C. want to start studying early but find that other things end up getting done instead
 - D. schedule blocks of time to study in one location a week or two before the exam

Which option would you MOST LIKELY perform? _____

Which option would you LEAST LIKELY perform? _____

2. When studying for an exam, you would:
 - A. you start planning and setting aside time in advance
 - B. work in a clean environment, even if it means taking time away from studying
 - C. wait for inspirations before becoming involved in most important study tasks
 - D. wait until the last day or so to study, knowing that you HAVE to get it done now

Which option would you MOST LIKELY perform? _____

Which option would you LEAST LIKELY perform? _____

3. Your professor announces in class that undergraduate students are needed to help run subjects for his upcoming study. While you would not receive any formal sort of extra credit, the professor would appreciate any volunteers. Given the following choices, which option would you choose?
 - A. Examine your schedule and offer to volunteer a couple hours a week when it is personally convenient.
 - B. Examine your schedule and offer to volunteer as many hours as you can.
 - C. Realize that you would have to give up some of your free time and choose not to volunteer.
 - D. Offer to run subjects only if you are paid.

Which option would you MOST LIKELY perform? _____

Which option would you LEAST LIKELY perform? _____

4. When studying for an exam that will cover both lecture notes and the assigned readings from a textbook, you would:

- A. break studying into sections and test yourself as you go through the material
- B. review all the material then test yourself
- C. review your lecture notes and then review your notes taken from the textbook
- D. read the chapters throughout the semester but focus on the lecture notes for the exams

Which option would you MOST LIKELY perform? _____

Which option would you LEAST LIKELY perform? _____

5. You are a member of a team that has completed a class project. The professor hands back the grade and feedback on the project. In professor's comments was a pointed attack on the group for plagiarizing and half a letter grade was deducted from the project's final grade. You know that the student honor code requires you to report whomever has plagiarized. However, the plagiarizing was not related to the portion of the project that you were personally responsible for. What would you do?

- A. Discuss the situation with the group and come up with a decision what to do, or not to do, together.
- B. Tell the person responsible for the error that he should contact the team leader.
- C. Tell the professor who was responsible for the plagiarism.
- D. Accept the grade, learning from the experience and vowing never to let it happen again.

Which option would you MOST LIKELY perform? _____

Which option would you LEAST LIKELY perform? _____

6. You have so many assignments to complete and so much studying to accomplish, you feel you will never get caught up or accomplish anything. You are truly overwhelmed. What would you do?

- A. Prioritize your activities, enumerate the steps to be accomplished for each activity, and systematically go through your work.
- B. Decide what you can accomplish reasonably and focus on getting that work done, and let the rest of the work go unfinished.
- C. Talk to your professors, explaining your situation, and ask for extensions on the due dates.

D. Take a break for a day and go out with your friends, then go back to working hard again.

Which option would you MOST LIKELY perform? _____

Which option would you LEAST LIKELY perform? _____

7. When studying for an exam that will cover both the readings you have been assigned as well as lecture notes, would you:

A. read the text book at least once and read through the lecture notes

B. attend class and read the book, then the night before the exam spend time reviewing the material

C. take notes during lecture and from the text book and review just the notes before the exam

D. integrate the notes you have taken in class and from the text book into a study guide to study from

Which option would you MOST LIKELY perform? _____

Which option would you LEAST LIKELY perform? _____

8. When taking a multiple-choice exam, would you:

A. start working on the easy questions first then come back to the more difficult questions

B. start working on the first question and continue working on the questions in order

C. randomly work on questions until all are answered

D. start working on the most difficult questions first, then come back and fill in the answers to the easy ones

Which option would you MOST LIKELY perform? _____

Which option would you LEAST LIKELY perform? _____

9. You are working on a class project, and realize that the project requires more time than you have budgeted for. You have requested and your professor has refused an extension on the project. Recognizing that this class project determines a large portion of your grade, what would you do?

A. Determine alternative methods of doing the project that require less time, even though it means sacrificing some of the quality of the project.

B. Seek input from others who have experienced similar problems on how to best handle matters.

C. Discuss with your professor the importance of and progress made on the project, exactly why you need more time, and how the lack of time will impact your work. Try to

persuade the professor to give you what you need.

D. Put in the additional hours needed so the project is completed, even if it means sacrificing sleep or free time.

Which option would you MOST LIKELY perform? _____

Which option would you LEAST LIKELY perform? _____

10. When taking an essay exam, would you:

A. write a rough draft and then a final draft for each essay

B. create a written outline for each essay before writing it out

C. write out thesis first, then start writing the rest of the essay

D. start writing an essay knowing that you can go back and reorganize it if needed

Which option would you MOST LIKELY perform? _____

Which option would you LEAST LIKELY perform? _____

11. You are a student in a class. Another student comes to you and asks to borrow your class notes as he was not able to come to class. You give the notes to him. Later that month, the same thing happens, and again you give your notes to the student. This situation continues and you finally get upset since your classmate should be doing his own work and coming to class, not relying on you taking notes for him. How would you proceed?

A. Explain to the student that you do not understand what the problem is with coming to class, but you have helped as much as you can.

B. Continue to lend your class notes to him.

C. Inform the student that you will give him your notes one more time, but warn him that it will be the last time.

D. Sit down with the student and find out why he is not coming to class so that you can figure out the best way to deal with the situation from here on.

Which option would you MOST LIKELY perform? _____

Which option would you LEAST LIKELY perform? _____

12. When you receive your exam back, would you:

A. look at the grade you received then put the test away

B. look through the exam briefly to see which questions you answered incorrectly

C. look through the exam and examine why you answered the question incorrectly

D. do not look at the exam at all

Which option would you MOST LIKELY perform? _____

Which option would you LEAST LIKELY perform? _____

13. You are working with a very good student who has recently experienced some personal difficulties on a group project. He has confided these problems only to you. You have experienced an increased workload because of his problems. You have talked to him about your concerns, and empathetically requested that he resume full duties as soon as possible. A month passes and you are still doing too much of his work. Realizing that his work is taking up most of your free time, what would you do?

A. Inform your teammate that you understand his problems, but are no longer able to perform his work for him.

B. Ask your teammate if he would rather you look for another partner.

C. Continue to inform your teammate of your concerns until he resumes his full duties.

D. Talk to your professor about the situation.

Which option would you MOST LIKELY perform? _____

Which option would you LEAST LIKELY perform? _____

14. You are given an assignment that is due the same day as a really difficult exam in another class. Would you:

A. consult with the professor that gave the assignment and ask for an extension

B. accept the penalty and turn in the assignment late

C. complete the assignment the night before, sacrificing some of the quality but nonetheless getting it in on time

D. complete the assignment ahead of time so that you can spend the time the night before study for your exam

Which option would you MOST LIKELY perform? _____

Which option would you LEAST LIKELY perform? _____

15. You are having problems in one of your classes. The second exam is quickly approaching, and you want to do well on it, especially considering the poor grade you received on the first exam. You have worked hard so far in college to maintain a good GPA and don't want to sacrifice it. What would you do?

A. Continue to study and not give up even when you encounter difficult concepts.

B. Make an appointment and consult the professor for advice on studying and how to approach the material.

C. Set aside more time to study than you did studying for the previous exam.

D. Accept that you cannot always get great grades and focus your time and energy on other classes that you are doing well in.

Which option would you MOST LIKELY perform? _____

Which option would you LEAST LIKELY perform? _____

16. On the first day of class, your professor indicates that the class will meet three times a week. The format of the class will consist of a lecture for the first half followed by a discussion/answering questions on the topics. For each lecture there is also a corresponding chapter assigned in your textbook. Would you:

- A. attend lecture and then before the exams read the chapters assigned from the text book
- B. read the assigned chapter before each class
- C. read the assigned chapter after each lecture
- D. don't bother reading the text book at all

Which option would you MOST LIKELY perform? _____

Which option would you LEAST LIKELY perform? _____

17. You are taking five classes this semester, which is a normal course load for you. All classes have some exams, homework assignments, and an essay or two. Throughout the semester, would you:

- A. wait until the day before something is due and then work on it until completion
- B. spend some time studying everyday so the work doesn't build up
- C. a couple days before an assignment is due then begin to work on it a bit each day
- D. don't worry about it and take things one day at a time

Which option would you MOST LIKELY perform? _____

Which option would you LEAST LIKELY perform? _____

18. You are working on a project that involves doing some research and a lot of reading with another student. You take a break and come back to find that your desk is filled with more research articles. The student you are working with re-arranged everything on your desk and now you can't tell what you have already read and what you still need to read. You are angry. What would you do?

- A. Take a few minutes to cool down and then ask the student to tell you how she rearranged your desk.
- B. Realize it is your fault for leaving the files unattended on your desk.
- C. Inform the student that you are angry for what she has done and tell her that in the future you do not want her to touch your desk.

- D. Assume that the student had no bad intentions, and try to re-sort the piles.
 E. Ask the student if she knew where you had left off since the papers are all shifted now.

Which option would you MOST LIKELY perform? _____

Which option would you LEAST LIKELY perform? _____

19. Your roommate is having problems studying for an exam in a class that happens to be your major. You have finished your assignments for the night and were planning on going out to dinner with a couple of friends. However, you recognize that your roommate has helped you previously on some of your assignments. Your roommate asks you for help in studying for exam. What would you do?

- A. Explain that you already made plans, but that when you get home from dinner you can review some material with her.
 B. Call your friends and cancel dinner, staying home to help your roommate and have dinner with her instead.
 C. Delay your dinner plans for an hour, spending the time helping your roommate, then go out to dinner.
 D. Explain that you would have liked to help her, but you already have plans that cannot be broken.

Which option would you MOST LIKELY perform? _____

Which option would you LEAST LIKELY perform? _____

20. You are assigned a final paper due at the end of the semester. Your professor gives you a suggested timeline to follow throughout the semester, with periodic submissions of different sections of the paper for review by the professor. However, the final draft is the only part of the project you will be graded on. Would you:

- A. wait until the end of the semester to write the paper
 B. stick to the professor's suggested timeline
 C. work on the paper periodically throughout the semester, but do not necessarily follow the professor's timeline
 D. write the paper in the first month of classes to get it out of the way

Which option would you MOST LIKELY perform? _____

Which option would you LEAST LIKELY perform? _____

21. You are assigned to write a research report for a project that was conducted in class. You don't know how to prepare parts of the report. As the first step in figuring out how to prepare the report, what would you do?

- A. Ask your professor.
- B. Just write out it out to the best of your ability.
- C. Review relevant documentation and previous example reports to determine how to write yours.
- D. Find out if students that have had this class before had to write a report and ask them what to do.

Which option would you MOST LIKELY perform? _____

Which option would you LEAST LIKELY perform? _____

22. The first day of class your professor goes over the syllabus with the class and notes that there will be four exams in the class. Your professor discusses in class what the exam will cover, and notes that almost all of the exams will be taken primarily from the lecture notes. Would you:

- A. skim each chapter throughout the semester, but study exclusively from the lecture notes
- B. read and review each chapter as well as study from lecture notes for the exam
- C. use only the lecture notes in studying for the exam
- D. focus on the chapters, trusting that the professor is using the book material as the basis for the lectures

Which option would you MOST LIKELY perform? _____

Which option would you LEAST LIKELY perform? _____

23. You are assigned to work on a group project with three other people. It is the night before the project is due, and the four of you are still working on tying up the loose ends. People are getting grumpy and tired, yet there is a full hour of work before you are done. Moreover, you realize that this grade may make the difference between an A- and a B+ for you in the class. What would you do?

- A. Point out to the group that everybody is tired so let's just try to get the job done as quickly as possible.
- B. Stay quiet and focus on your tasks at hand, letting the others to quarrel if they so desire.
- C. Offer to take over the last of the duties so that the others can go home.
- D. Decide that the grade isn't that important and decide to go home.

Which option would you MOST LIKELY perform? _____

Which option would you LEAST LIKELY perform? _____

24. At the beginning of the semester, your professor asks for a volunteer to type out the lecture notes after each lecture for a hearing-impaired student. The task would require you to type out the lecture notes and e-mail them to the student before the following class. The position is not paid. What would you do?

- A. Volunteer to type the notes.
- B. Volunteer at the beginning of the semester, but half-way through the semester realize you don't want to do it anymore and quit.
- C. Realize that it will take up too much time so you don't volunteer.
- D. Volunteer to type half the notes if the professor can find someone to share the duty with you, but if the professor can't find anyone else you wouldn't be able to do it.

Which option would you MOST LIKELY perform? _____

Which option would you LEAST LIKELY perform? _____

APPENDIX B: TEAMWORK PROCESSES SITUATIONAL JUDGMENT TEST

Note: All the following response options for the given scenarios are in a rank format. You are to rank the options you would choose from *very likely* to choose to *very unlikely* to choose. Please indicate the response option you would *very likely* choose and list each option in order of how likely you would choose them until the *very unlikely* to choose response option is chosen for each situation.

Scenario 1 – Mission Analysis

The CEO of a high-end restaurant chain comes into your office and says that she has a disturbing finding. The service quality waiters and waitresses (servers) is at a two year low, and customers that usually frequent your restaurant are going to other places to eat instead. As the Vice President of Human Resources, you are tasked with analyzing the situation and coming up with a solution to improve the server performance. You have decided that the first step to tackle the problem is to create a team of individuals from corporate Human Resources and local managers in the organization that may be useful in solving this issue. Right after forming the team, you are trying to decide what should be your next immediate step in trying to solve this problem.

Please rank each response choice on how likely you would be to take the action(s):

1. Have a team meeting to discuss the possible nature of the problem and potential steps that can be taken to improve server performance.
2. Have your team research industry trends to see if they can find any useful information that could be used to identify common problems with server performance.
3. Immediately start to work on the task, leaving everyone to figure out how to accomplish the CEO's goal for themselves.
4. Have your team call managers in various restaurant locations to find out if they understand the nature of the problems in server performance.
5. Have a meeting with your team to discuss relevant tasks, challenges, and resources needed to analyze the problem.
6. Fire your old service staff and put your team in charge of hiring new service staff.

Scenario 2 – Goal Setting

You are on a team that has goals set to meet specific organizational standards. You have noticed that deadlines for team tasks are not being met. It has come to your attention that the goals being set are too general and members are becoming unsure of the standards they should meet. The timelines for meeting goals are too vague, which has resulted in a lack of consensus among group members of how the goals should be prioritized. The group's productivity is declining.

Please rank each response choice on how likely you would be to take the action(s):

1. Exclude the goals that are set by the organization and focus on prioritizing group goals.
2. Suggest to the group that fewer goals should be set.
3. Consult with the group for more specific and attainable goals.
4. Criticize group members for the goals not being met.
5. Take responsibility for establishing new individual goals for other team members.
6. Suggest to the group that new timelines should be set to clarify which tasks are the be prioritized.

Scenario 3 – Strategic Formulation and Planning

You are a part of a team that has been working on a project for six months. It has become apparent to the team that the original strategy set for completing the project is not working out. The team is unsure of how to proceed.

Please rank each response choice on how likely you would be to take the action(s):

1. Suggest that a new strategy should be created and implemented in order to better complete the team's task.
2. Continue with the current strategy but try to fix the areas of the plan that need improving.
3. Use the experience to highlight the importance of having alternative strategies for when problems arise.
4. Criticize the current strategy and the lack of group productivity on the team task.
5. Develop an alternative strategy for the team and present it at the next meeting for discussion.
6. In front of the team's external supervisor, place the responsibility of the failed strategy on the other team members.

Scenario 4 – Monitoring Progress Towards Goals

You work for a home construction team that was recently subcontracted to develop the frame for a two-story home. The framing contract has a firm timeline of three weeks because a roofing team from another construction company has been subcontracted to being roofing detail the day after your timeline closes. Your team developed a three-week outline with established goals for frame development. One week from the deadline, the lumber company delivering your last shipment of wood tells you that the shipment is going to be two to three days late. Seeking out an alternative wood provider would take longer than the two to three day delay.

Please rank each response choice on how likely you would be to take the action(s):

1. Discuss the delivery delay with one or two team members without notifying the contractor, complete a minor amount of the work with the available supplies, and allow team members to rest until the new delivery day even if achievable goals are not yet complete.

2. Identify the exact percentage of completed framing through team member meetings, communicate production progress and sub-goal completion to your team and the contractor, and redevelop goals into a compressed timeline.
3. Notify the contractor and your team members that a delivery delay has temporarily stalled production and demand that the contractor extend the deadline so your team can establish new goals for the project.
4. With the help of team members, estimate how much framing has been completed and the amount of time that will be required to complete the project after the delay and request a deadline extension from the contractor based on your team's estimations.
5. Accept the fact that the delivery will be delayed and that the deadline cannot be reached, completely stall production without notifying the contractor, and give team members two days off until the supplies arrive.
6. Complete the goals that were established until the point of the delivery delay and hope that the delivery will actually arrive earlier than the two to three day delay.

Scenario 5 – Systems Monitoring

You are the resource and systems monitor to the logistics team at We Deliver Packages, Inc. who is in charge of making sure WDP delivery trucks have the resources and information they need to make their deliveries on time in the greater metropolitan area of a major city in the USA. During the middle of the night, a storm hit your metropolitan area. As a result, major roadways are close and electricity is out around town, which makes the refueling of your delivery trucks a problem. You need to collect information about your team's delivery system and resources and provide the relevant information to each driver so that he or she can deliver all of the packages today.

Please rank each response choice on how likely you would be to take the action(s):

1. Tell your drivers about major road closings and to keep an eye out for working gas stations.
2. Tell your drivers about major road closings and to radio in when they are low on gas to find out where working gas stations are located.
3. Tell your drivers to do the best they can and to return to base when they are low on gas.
4. Tell your drivers about the road closings, detours, and working gas stations on their routes.
5. Tell your drivers to keep an eye out for working gas stations and give them a map of the area.
6. Remove some of today's deliveries from the trucks so the drivers will not need to refuel.

Scenario 6 – Team Monitoring and Backup Responses

You are in a team with several team members that report to a team leader. The assigned proposal requires team members to work interdependently with common knowledge. The

due date of the proposal is in three days and one of your team members in the same office is away on sick leave. Reading through the proposal, you notice that your team member's assigned section is in such disarray that it is difficult to understand and follow.

Please rank each response choice on how likely you would be to take the action(s):

1. Assume the team leader probably has it all under control and will deal with the situation soon.
2. Inform the team leader that attention is needed for the sick member's section and offer your assistance.
3. Finish your own assigned section first and then decide whether or not to tell the other team members about the situation of the sick member's section.
4. Report the situation to the team leader and ask whether you can spare some time to improve your sick member's section.
5. Inform your sick team member immediately that his/her assigned section requires attention.
6. Consult with other team members immediately and let them decide what to do.

Scenario 7 – Coordination Activities

You are the leader of a team that has been assigned various complex tasks that must be completed in a very short period of time. These tasks require that the team work together interdependently to accomplish them successfully. Your team members all have very different schedules. Because of this, it is difficult to coordinate one specific meeting time for all members and to compile each person's work efforts into one product. As the team leader, it is your responsibility to make sure the overall tasks are completed successfully in a timely manner.

Please rank each response choice on how likely you would be to take the action(s):

1. See about pushing the deadline back until all members are able to meet together to complete the tasks.
2. Thoroughly examine all members' individual schedules and set a weekly meeting time that works for everyone, even if that time is not ideal (e.g., late at night, on the weekend, etc.).
3. Decide as the team leader how the tasks can be split up and assign each team member a specific task to complete on their own. Then, have one meeting where all completed individual work will be compiled into one cohesive product.
4. Convince the team members to ignore their other obligations at this time in order to meet this deadline.
5. Accept that the tasks cannot be done in the time allotted and step down as team leader.
6. Add more members to the team in hopes that their schedules will better coordinate.

Scenario 8 – Conflict Management

You are a member of a team that has been assigned a new project to complete. During the initial team meeting to discuss the project and its details, you notice that conflict is arising between the team members. The team met to discuss roles during the project and to assign tasks to each individual. There is conflict among the team members who will be responsible for each part of the project. The team has a very tight deadline and cannot afford to waste any time.

Please rank each response choice on how likely you would be to take the action(s)

1. Try to identify each team members' strengths and weaknesses and match tasks according to individual strengths.
2. Go to your supervisor and explain the situation in hopes that he or she will be able to resolve the problem.
3. Suggest that tasks be randomly assigned to each team member so the project can move forward.
4. Ask the group leader to assign roles to each individual based on whom they believe will do the best job.
5. Ask the group leader to assign roles without any input from others.
6. Propose that everyone identify which tasks they would like and have them provide an explanation as to why they feel they would be the best one for the task.

Scenario 9 – Motivating/Confidence Building

You are part of a team and you have an important project that needs to be completed in three months. Your team has been working well for the past month. Recently, you have come to notice that some of your team members have started to slow the pace of their work and are not working on the project as much as they had been previously. Also, you have found that a few of your team members do not interact much with the team. If these circumstances continue, it will be impossible for your team to complete the project in the next two months.

Please rank each response choice on how likely you would be to take the action(s)

1. Inform the team there will be a party after the successful completion of the project.
2. Propose that the manager reward the team member who shows the best performance on the project.
3. Inspire your team members by telling them that it is their collective responsibility to complete the project by the due date, and that the successful completion of this important project depends on each of their efforts.
4. Remind the team members about their past successes and how hard they have worked towards achieving the team's goals.
5. Hold a team meeting and focus on the lack of work that has been completed thus far.
6. Remove all the assigned deadlines for each of the team member's work.

Scenario 10 – Affect Management

You are the leader of a team that has been working on a project for several months now. The project is almost finished, but there is still a lot of work to be completed and the deadline is quickly approaching. While the team members have consistently worked well together throughout the duration of the project, the urgency of the project's deadline is causing stress among members. You sense that tension is rising among your members as the deadline approaches and you believe this may lead to the project not getting finished on time.

Please rank each response choice on how likely you would be to take the action(s)

1. Suggest to your team to use the stress they are experiencing as a motivator and to keep pushing forward until the project is complete.
2. Plan a celebration upon completion of the project to which team members can look forward, while reminding them that success depends on all of their combined efforts.
3. Emphasize the importance of the approaching deadline to your members, and remind them that there is not time for conflict or for anyone to get emotional.
4. Realizing the urgency of the deadline, require team members to work longer hours and turn in a daily progress report of the work they have completed.
5. Ignore the tension between team members and hope it does not escalate.
6. Encourage team members to maintain positive attitudes and to not let the pressure cause conflict among themselves.

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Scenario 1: Mission Analysis

Item 1 + Item 5 – Item 3 – Item 6 = Total

Scenario 2: Goal Specification

Item 3 + Item 6 – Item 1 – Item 4 = Total

Scenario 3: Mission Analysis

Item 1 + Item 5 – Item 4 – Item 6 = Total

Scenario 4: Mission Analysis

Item 2 + Item 4 – Item 1 – Item 5 = Total

Scenario 5: Mission Analysis

Item 2 + Item 4 – Item 3 – Item 6 = Total

Scenario 6: Mission Analysis

Item 2 + Item 4 – Item 1 – Item 3 = Total

Scenario 7: Mission Analysis

Item 2 + Item 3 – Item 4 – Item 5 = Total

Scenario 8: Mission Analysis

Item 1 + Item 6 – Item 3 – Item 5 = Total

Scenario 9: Mission Analysis

Item 3 + Item 4 – Item 2 – Item 6 = Total

Scenario 10: Mission Analysis

Item 2 + Item 6 – Item 4 – Item 5 = Total

Sum of Totals = Composite

APPENDIX C: DEMOGRAPHICAL QUESTIONS

What is your current age (in years)?

What is the last degree you obtained?

- ☐ High school diploma (or equivalent)
- ☐ Associate's degree
- ☐ Bachelor's degree
- ☐ Master's degree
- ☐ Doctorate
- ☐ None of the above

Current Employment Status (Check all that apply)

- ☐ Employed full time
- ☐ Employed part time
- ☐ Unemployed / Looking for work
- ☐ Student
- ☐ Homemaker
- ☐ Retired

Please indicate the number of years you have been employed full time (40+ hours a week), even if you are currently unemployed

- ☐ Less than 1 year
- ☐ 1-3 years
- ☐ 3-5 years
- ☐ 5-10 years
- ☐ 10 + years

Please indicate the number of years you have been employed part time (less than 40 hours a week), even if you are currently unemployed

- ☐ Less than 1 year
- ☐ 1-3 years
- ☐ 3-5 years
- ☐ 5-10 years
- ☐ 10 + years

Are you currently enrolled at a college or university?

- ☐ Yes
- ☐ No

What is your current level in college?

- ☐ Freshman
- ☐ Sophomore
- ☐ Junior
- ☐ Senior
- ☐ Graduate Student

What is your current major(s)?

Please indicate which gender you identify most with

- ☐ Men
- ☐ Women
- ☐ Transgender man
- ☐ Transgender women

☐ Prefer not to say

☐ Other

What is your race/ethnic identity?

☐ Caucasian/White

☐ African-American/Black

☐ Arab/Middle Eastern

☐ Hispanic / Latino

☐ Native American/Alaskan Native

☐ Asian / Pacific Islander

☐ Bi-Racial / Multi-racial

☐ Prefer not to say

☐ Other (Specify)