APPLYING ONLINE: APPLICANT PERCEPTIONS OF ONLINE RÉSUMÉ

SUBMISSION

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ABSTRACT

Online résumé submission has received negative criticism due to the lack of human interaction that applicants are exposed to during the initial stages of applying for jobs. This study investigated applicant's perceptions of fairness of the online résumé submission process. Tailoring résumés in terms of fairness, ethicality, and several other variables was also assessed. Participants were 152 students recruited from a research pool of introductory psychology students as well as an upper level psychology class at a large, public university. Six scenarios, or situations, were presented to participants with questions that followed each regarding fairness, ethicality of the situation, and other variables. The results showed that participants viewed human screening agents as fairer and more ethical than automated screening agents. They also viewed tailoring résumés to be less fair and less ethical in most scenarios. Additional information regarding results, implications, limitations, and conclusions are also presented.

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CHAPTER I: INTRODUCTION & LITERATURE REVIEW

Résumés are said to be the most widely used tool during the beginning stages of the employee application process. They allow recruiters and selection staff to view an applicant's knowledge, skills, and abilities (KSAs) during pre-screening and interviewing (Wright, Domagalski, & Collins, 2011). Today's organizational processes and procedures are increasingly occurring online. In recruiting and selection processes, many of these processes require applicants to also fill out an online application (also known as an application blank) during their initial selection stages in addition to submitting a résumé online. An application is more standardized than a résumé and contains blanks for applicants to fill in. Applications can allow for easy comparison of candidates. Résumés, however, are unique to the specific applicant and allow them to highlight their skills however they wish. Résumés often include contact information, education background and professional certifications, and previous job experience. Due to a recent growing trend in technology being instituted into the selection process, research has been conducted on many different facets of selection procedures. Understanding how employees perceive new technology in the hiring process is an important aspect of literature that needs further study (Anderson, 2003).

Organizational websites with application portals are replacing traditional, paper-based recruiting methods. The standard "human", and non-technological way of recruiting and hiring employees consisted of recruiters or hiring managers receiving potential applicant's résumés by an in-person drop off, mail, or email. The new automated application portals, in which applicants submit their résumés to an online

system, have become the new norm over the past several years. Applicants build a profile on the organizations career website, submit their résumé, and complete any preliminary screening questions required of the position. Online application portals can be regarded by some as a "black hole" and may receive negative criticism from applicants in regards to the unknown whereabouts of their résumé upon online submission (Weber & Silverman, 2012). Since résumés have been used so frequently and technology is becoming so widely used, it is important that we find out applicant's perceptions of the human versus automated résumé screening process. Also, due to the fact that the screening process has shifted from a human process to an automated process, applicants are becoming more aware of the implications of automated résumé screening and are trying to "beat the system" by adding in keywords from the job description. In one instance, an applicant added small lines of white font with keywords from the job posting in order to be selected by the résumé parsing system and potentially be selected to interview (Neary, 2012). There are additional ethical implications that stem from applicants additions of keywords (also regarded as tailoring, padding, or fluffing) into résumés to match the position description. There is an ethical line that should also be assessed in terms of ethical standards when applicants tailor their résumés. This study aims to examine all of these factors.

Electronic Résumé Submission and Scanning

Bennett, Borstorff, and Marker (2007) note that the two most commonly used tools for finding job applicants online are actual company websites and internet job boards. Company websites allow recruiters to simply upload job posting information and add it directly to their company website for applicants to easily view. Job boards allow

recruiters to post open positions to an external website that displays many other job postings from other companies as well. Both of these methods are great tools for recruiters to use and allow applicants to submit their résumés and apply online (Bennett, Borstorff, & Marker, 2007). Once the positions are posted for applicants to view, they are then able to apply online by submitting their résumé via an online submission portal. This portal allows candidates to upload their résumé and apply for the position online. These portals can often serve as more than a simple repository of résumés because it is typically the case that the submission process is the start of an electronic screening process. These initial processes begin with software designed to scan résumés.

Electronic résumé scanning is a process in which résumés are uploaded to software programs and scanned for keywords relevant to the job. Résumés are then passed on to recruiters if the applicant has included job-specific keywords. Applicant tracking systems are automated computer programs or platforms that accept electronic résumés from interested candidates and then scan for keywords based on the qualities desired for a specific job posting. These systems act as filters of résumés and qualifications desired by organizations to determine which applicants should be considered for employment (Chaney, Green, & Alderson, 2003).

Implications of Technology in Selection

In 2003, HR managers reported that 25-33% of all applications or résumés were received via the internet or email (Chapman & Webster, 2003). This number has surely increased with the rapid expansion of technology in selection procedures.

This technological résumé submission process is simple, cost-efficient, allows organizations the ability to go through many résumés in minutes, and can also help

eliminate bias in the hiring process for organizations (Baker, DeTienne, & Smart, 1998).

Conversely, in a survey of Fortune 500 companies that use electronic résumé

management systems (ERM), 55% of respondents believed their quality of applicants

since the institution of ERMs has not changed (Baker et al., 1998). This fact lends itself

to the issue of why this electronic process is used so widely if it is not providing an

improved pool of applicants.

Some of the potential benefits for organizations to use and implement technology

based HR solutions in the selection and recruiting processes are that it saves money, it is

linked to the increase in globalization, there is potential to reduce adverse impact, and it

can improve selection process efficiency (Chapman & Webster, 2003). A survey

conducted in 2000 found that employers and applicants viewed personal interaction as a

very important component during the recruiting stages. Job seekers also feel that

submitting résumés online can be inefficient because of the lack of personal attention.

Concluding that applicant's résumés either pass through or get screened out by parsing

systems is a much less personal process and it could change the attitudes and behaviors of

applicants. There has also been evidence that applicants that utilize online systems can

be frustrated with the lack of employer feedback. Without feedback, applicants may be

left wondering if their résumé was ever even considered (Bennett, et al., 2007). Due to

the discrepancy between the favorability of organizations and mixed reviews of

applicants, this process should be investigated to determine whether or not applicants that

use these systems not only perceive this process as user-friendly, but also as a fair and

just way to determine if a person is screened in or out of the applicant pool.

Perceived Fairness in Electronic Résumé Screening Procedures.

Much research has been conducted on applicant perceptions of fairness in many of the selection procedures including testing and interviewing; however there is minimal research published regarding the applicant's perceptions of fairness in regards to the screening process (Dineen, Noe, & Wang, 2004). Applicant screening is regarded as the first step in the selection process. During the screening process organizations determine what will be used to narrow the applicant pool from everyone down to qualified candidates for interviewing and possible employment (Dineen et al., 2004). Because the applicant screening process is the first process in the selection procedure, it is fitting that employees should be concerned with the fairness of that screening process. Due to the relative importance of applicant's perceptions of fairness upon the first initial contact with the organization, mixed with the lack of research on this topic, it is imperative to explore this topic further (Dineen et al., 2004).

There is a strong possibility that applicant's prefer the ability to apply and receive information from the comfort of their own home (Anderson, 2003). However, it has not been shown that the move to online selection and recruiting procedures is due to the preferences of the organization or the applicants. It is further suggested that reactions of online selection procedures from different types of applicants (e.g., older, less computer literate) and follow-up procedures after the initial applicant screening process should be investigated further (Anderson, 2003).

Procedural justice perceptions can help determine the attitudes of applicants. Employees who perceive the process as fair maintain positive attitudes about the organization. Smither, Millsap, Stoffey, Reilly, and Pearlman (1996) found that the

perceptions of procedural justice are related to organizational commitment, job satisfaction, and performance. In essence, when applicants perceive a selection procedure to be fair they are more likely to have a positive view about the organization. This positive mindset about the organization could have a significant impact when introduced at the beginning of the selection process.

Dineen, Noe, and Wang (2004) discuss the implications of not considering applicants perceptions of fairness in regards to the screening processes. The lack of concern for perceived fairness in selection processes may discourage applicants to apply to specific organizations, or the organization may incur negative or even legal consequences. Thus far, only one study has focused on the association between résumé screening agent and perceptions of fairness (Dineen et al., 2004). This study found that human résumé screening agents were perceived fairer than automated, or computer screening agents.

Hypothesis 1: Human résumé screening agent will be viewed as more procedurally fair than an automated screening system.

Keywords.

Companies like CareerBuilder.com and many others are providing online resources to job seekers regarding the types of "keywords" to include in résumés pulled from job descriptions just so their résumé is pushed into the "qualified" applicant pool (Amare & Manning, 2009; Auerbach, 2012). Auerbach (2012) states, "If your résumé doesn't have the keywords that match their job requirements, your résumé may hit the "no" pile early in the process." The adding of specific keywords can help applicant's résumés be passed through the résumé parser and on to the recruiter. In some instances,

Amare and Manning (2009) explained that some online student success center's give advice to student's to include relevant keywords stated in the job description that an applicant is applying for without specifying that the keywords included should only be added if they truly reflect the applicants experience. Applicants may be encouraged to add keywords in a deceptive manner in order to stay in the applicant pool or potentially be chosen (Baker, et al., 1998). The ethical implications underlying this issue should be investigated to determine whether or not applicants do in fact use deception and whether they are aware that they are or are not being deceptive when applying to jobs that use online résumé submission (Amare & Manning, 2009).

Mohamed, Orife, and Wibowo (2002) discuss legal implications of organizations that use keyword searches in their selection procedures. Due to the nature of these searches, they are actually a selection tool and should be validated (Mohamed, Orife, & Wibowo, 2002). Keyword searches (KWS) can cause problems in terms of the validity of the selection procedure. If the KWS criteria are not based on a current, valid job description, applicant's résumés may be screen based on the recruiter's subjective opinion of what the job requirements should actually be. This process could potentially be biased or prejudice, thus legal implications could follow. Consistency was also found to help increase validity with regards to KWS protocol. Also, it was discussed by the researchers that applicants writing skills may actually affect the possibility of getting through résumé screening based on KWS (Mohamed, et al., 2002). Alternatively, if applicants are unaware of online résumé screening and KWS processes, they may not be selected if they have poor writing skills (Mohamed, et al., 2002).

Hypothesis 2: Applicants will view having a résumé that has no keywords added or "tailored" as more procedurally fair than "tailored" résumés (both low and high).

Résumé Embellishment.

In addition to ethics, another important variable was assessed in the current study – résumé embellishment. Kidwell (2004) stated that "research indicates that college students seeking jobs are willing to lie or exaggerate on their résumés." Marcoux (2006) suggests that résumé embellishment should be morally allowed, as well as at times required in order to become employed. In contrast, Bishop (2006), states that job applicants should not embellish on their résumés at all. Due to the conflicting views of résumé embellishment and the fact that it is in fact being utilized in today's job market, this study aims to determine if students think that it is acceptable to embellish on their résumés as well as if they believe it is acceptable for others.

Impression Management.

Impression management is a sort of tactic that people use to elicit positive reactions and improve their own likability among other people (Weiss & Feldman, 2006). In order to engage in these behaviors, Jones and Pittman (1982) propose that people use ingratiation, self-promotion, exemplification, supplication, and intimidation as self-presentation or impression management tactics. Ingratiation occurs when someone uses instances of flattery in an attempt to seem like a likable person. Self-promotion is a tactic where they person engaging in this strategy would discuss many of their abilities and accomplishments in order to seem highly skilled or knowledgeable. Exemplification is defined as a tactic used when someone does more than necessary to look very dedicated to a cause. Supplication can be described as a situation where an individual makes

themselves seem as if they are unable to complete a task in order to have someone help them. Finally, using threats in order to seem powerful is known as intimidation (Jones & Pittman, 1982). Weiss and Feldman (2006) researched how job candidates used impression management techniques during the job interview process. Ultimately, they found that participants lied in job interviews in order to increase their chances of getting a job by using impression management techniques (Weiss & Feldman, 2006). Bolino and Turnley (1999) created an impression management scale based on Jones and Pittman's (1982) taxonomy of impression management. After several validation studies (Bolino & Turnley, 1999; Kacmar, Harris, & Nagy, 2007), the Bolino and Turnley Impression Management scale is a great choice for determining student's levels of impression management in regards to applying for jobs. It is important to explore if impression management has an impact on perceptions of fairness in online résumé submission. If applicants utilize impression management techniques when applying for jobs, they may prefer an actual person to screen their résumé so that they could potentially increase their chances of getting a job.

Ethics.

In electronic résumé submission and in tailoring résumés there is a component of ethics that should be assessed. Historically, ethicality, ethical stance, or ethical judgments, have not been assessed in terms of personnel selection (Nguyen, Basuray, Smith, Kopka, & McCulloh, 2008). Ethics has been researched much more in terms of business ethics, unethical business acts or behavior, and in terms of moral issues. Moral equity is defined by Nguyen et al. (2008) as the perceptions of individuals in terms of fairness and justice this includes right and wrong in a broad sense (Nguyen et al., 2008).

Applicants may view the online screening agent differently than they do an actual person screening their résumé. The ethicality variable will be a valuable addition to determine the perceptions of applicants in regards to current résumé screening procedures.

Individual Difference Variables

There are individual differences in the weight that applicants place on perceived justice within online applicant screening processes. In a research paper on considerations for future research by Chan and Schmitt (2004), it was found that individual differences (e.g., openness to experience, conscientiousness, and other personality trait variables) of applicants can be an important factor regarding the reactions to new technology in applicant selection procedures. Gender and previous experience with applying for jobs will be evaluated as individual difference variables in this study.

Gender.

Previous research has found that there is a difference in the way males and females perceive fairness (Dineen et al., 2004). Females tend to view procedures or processes as an important component in terms of evaluating experiences in organizations regardless of if the processes were fair or not (Sweeney & McFarlin, 1997). Due to the nature of this finding, female applicants may be more sensitive to the process of application submission that organizations use more than males. Sweeney and McFarlin (1997) also discuss that females may care more about procedures that organizations use to determine their applicant pool due to issues of past discrimination and advancement opportunity within organizations. In opposition to that point, males may perceive that they will receive favorable outcomes and be less sensitive to the fairness of selection

procedures (Dineen et al., 2004). Similarly, Nguyen et al. (2008) make the suggestion that men are less ethical in comparison to women in their intentions and actions. Because gender impacts perceptions of fairness and equity, it is hypothesized in this study that females will perceive online applicant screening processes less fair than males.

Hypothesis 3: Females will have lower perceptions of procedural fairness when an automated decision making agent is presented in the scenarios.

Experience with Applying Online.

Gilliland's model of applicant reactions discusses the importance of previous experience in terms of the selection procedures utilized (Gilliland, 1993). Familiarity with online screening for jobs may be of interest in terms of applicant's reactions to this online process. Applicants who are less technologically savvy may perceive this new way to be screened for a job as a less fair procedure. This may be because they do not fully understand the process and it could be perceived as an unfair process (Bauer, Truxillo, Tucker, Weathers, & Bertolino, 2006). Bauer et al. (2006) found that experience with computers moderated the relationship between fairness perceptions and applicant reaction outcomes. It is hypothesized in this study that applicants that have had experience with applying online will find the process of an automated screening agent as a fair method of screening résumés than applicants that have not had experience with applying online.

Hypothesis 4: Participants with previous online application experience will view automated decision making agents as more procedurally fair than participants with low or no previous online application experience.

Current Study

  The current study was created to determine applicant's perceptions to online résumé submission as well as implications regarding tailoring résumés by adding keywords. The following hypotheses and research questions were evaluated in the present study:

  Hypotheses and Research Questions.

Hypothesis 1: Human résumé screening agent will be viewed as more procedurally fair than an automated screening system.

Hypothesis 2: Participants will view having a résumé that has no keywords added or "tailored" as more procedurally fair than "tailored" résumés (both low and high).

Hypothesis 3: Females will have lower perceptions of procedural fairness when an automated decision making agent is presented in the situations.

Hypothesis 4: Participants with previous online application experience will view automated decision making agents as more procedurally fair than participants with low or no previous online application experience.

Research Question 1: Will participants view the human résumé screening agent as an ethical procedure?

Research Question 2: Which situation will participants believe wastes the applicant's time?

Research Question 3: Which situation will participants believe wastes the company's time?

Research Question 4: Which situation will participants believe identifies the best candidate?

Research Question 5: Which situation will participants believe helps the applicant get noticed?

Research Question 6: Which situation will participants believe helps non-traditional applicants get selected?

Research Question 7: Is impression management correlated with perceptions of fairness within the situations?

CHAPTER II: METHODS

Design

This factorial research design is a 2 X 3 repeated measures (within-subjects) design. Two variables were manipulated (independent variables) in scenarios. Participants responded to question areas regarding seven dependent variables. The manipulated variables were decision making agent (human or automated) and tailoring of résumé (high, low, none). The *human* decision agent was denoted as an actual recruiter or hiring manager reviewing the résumé upon submission; while the *automated* decision agent was described as an applicant tracking system that parses the applicant's résumé for keywords in order to determine initial qualification based on the job description. The levels of résumé tailoring were one of three possible variables: a) *high* – the résumé was tailored by adding keywords found in the job description that might not be the applicant's actual qualifications simply to be recognized as qualified; b) *low* – the résumé was tailored to the job by adding relevant keywords from the job description that matched the applicant's qualifications; c) *none* – the same résumé was submitted to all jobs. The dependent variables included whether the situation was fair, wasted the applicant's time, wasted the company's time, if the situation identified the best candidate, helped get the applicant noticed, and helped non-traditional applicants be selected. Gender and previous experience with online résumé submission were included as covariates in this design.

Participants

The participants for this study were 152 students enrolled at Middle Tennessee State University in Murfreesboro, Tennessee. Participants were recruited from via the SONA system research pool at MTSU (n = 124) as well as a class of MTSU students in

an upper level psychology course (n = 28). Course credit was given to students who participated outside of the SONA system research pool at MTSU at the discretion of the professor.

Of the 146 participants that completed the demographic information in this study, 44.5% (n = 65) were male and 55.5% (n = 81) were female. The average age of participants was 22.05, and 62.3% were Freshmen or Sophomores in college. Other demographic information was obtained from the participants including ethnicity, work status, number of hours worked, familiarity with applying online, job applications within the past two years, methods of applying for jobs, total number of job applications, whether they would be likely to apply online, and whether they would be likely to tailor their résumé. All demographic information may be found in Appendix C. The one requirement for this study was that the participant must, at the time of the survey completion, be a student at MTSU to maintain consistency within the sample. Participants were treated in accordance with the APA Principals for the Ethical Treatment of Human Participants.

Materials

Situations.

The manipulated variables in each situation were decision making agent (human or automated) and tailoring of résumé (high, low, or none). See Appendix A for the list of the manipulated variables included in the situations that participants reviewed.

Measures

       Frame of Reference Information/Manipulation Checks.

To encourage all participants to have the same frame of reference, preliminary information was presented at the beginning of the survey to explain online résumé submission, applicant tracking systems, parsing résumés for keywords, and the varying levels that applicants "tailor" their résumés. Two manipulation checks were included after the preliminary information was presented to participants. These manipulation checks were two multiple choice questions that allowed the researcher to determine if the participant understands the information that was presented in the following survey. Students that did not answer both manipulation check questions correctly were eliminated from the data pool. The total number of participants before the removal of those who did not correctly answer the manipulation check questions was 187 (35 participants were removed). Additionally, there were five participants that did not respond to all questions. The number of participant responses varies in this study from 147 – 152.

       Applicant's Ethical Perceptions.

This study assessed the ethicality of each situation as well as the individual factors to determine the ethicality of each of the factors included in this study (e.g., decision making agent and résumé tailoring). Participants were asked to rate their perception of the degree of the situation's ethicality by using the ethicality scale in each scenario as well as individual factors. The items assessed in the ethicality scale, adapted from a modified version of the moral equity portion of the Multidimensional Ethics Scale

(MES), were rated on a six point scale. The items included "Unfair to Fair", Unjust to

Just", "Unacceptable to Acceptable", and "Unethical to Ethical" (Nguyen et al., 2008).

Perceptions of Situations.

Following each scenario, participants were asked to rate their level of agreement

on the following statements: whether the situation wastes the applicant's time, whether

the situation wastes the company's time, if the situation identifies the best applicant, if

the situation helps get the applicant noticed, if the situation helps non-traditional

applicants be selected, and if the situation is fair. Perceptions of these situations were

measured on a five point Likert-type (*strongly agree* = 1, and *strongly disagree* = 5)

scale.

Impression Management Scale.

The Bolino and Turnley Impression Management scale (1999) was used to

determine student's levels of impression management in regards to applying for jobs. The

scale includes 22-items, and asks participants to respond to the items by thinking about

"how often you behave this way". Impression management was measured on a five point

Likert-type (*never behave this way* = 1, and *always behave this way* = 5) scale.

Demographic & Applicant Questions.

All demographic and applicant questions were presented at the end of the survey

and can be found in Appendix B.

Procedure

This study was conducted via an online survey (see Appendix B for full survey)

created with Qualtrics online survey platform. In the survey, participants viewed each of

the six scenarios followed by the list of questions regarding ethicality and perceptions of

fairness as well as other variables listed above. Scenarios were randomized to help

control for testing effects and fatigue. Demographic questions and covariates including

online application experience question were presented at the end of the survey.

Manipulation checks were added to the online survey to help identify inaccurate or

inappropriate data to keep it from being used. Finally, participants were thanked for their

participation, and no debriefing was necessary due to the nature of the study.

Analyses

The main analyses in this study were repeated measures ANOVAs. The analyses

were used to compare the group means of each situation because the participants viewed

all six situations. All conditions were compared by each question, or variable.

Additional analyses were conducted using the individual difference variables, gender and

experience with applying online, as between subjects variables. Impression management

was also added as a covariate to determine if it made an impact on participant's

perceptions of the scenarios.

CHAPTER III: RESULTS

Perceived Fairness

Hypothesis 1: Human résumé screening agent will be viewed as more procedurally fair than an automated screening system.

Hypothesis 2: Participants will view having a résumé that has no keywords added or "tailored" as more procedurally fair than "tailored" résumés (both low and high).

A repeated measures ANOVA (RM-ANOVA) was conducted to determine if there were significant differences of perceived fairness between the levels of résumé screening agents (human versus automated) and résumé tailoring (high, low, or none). The single question that was presented after each scenario regarding the situation, "The situation is fair", was used as the dependent variable.

The results show that there was a main effect for résumé screening agent, $F(1,147) = 39.97$, $p < .001$. All descriptive statistics for this analysis may be found in Table 1. Mauchly's test did not indicate information about sphericity in regards to résumé screening agent, therefore degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity ($\varepsilon = 1.00$; see Table 2). Human screening agents (M = 2.50) within the situations were viewed more fairly than automated screening agents (M = 2.93).

Table 1
Descriptive Statistics for Fairness of the Situation

	Mean	SD	*n*
Human			
High	3.10	1.28	148
Low	2.29	1.02	148
None	2.11	.922	148
Automated			
High	3.42	1.09	148
Low	2.74	1.16	148
None	2.64	1.04	148

Table 2
RM-ANOVA for Fairness of the Situation

		Type III Sum of Squares	df	Mean Square	*F*
Screening Agent	Greenhouse-Geisser	41.082	1.000	41.082	39.97**
Tailoring	Sphericity Assumed	133.79	2	66.90	44.31**

***p* < .001

A significant main effect was also found for the levels of résumé tailoring,

$F(2,294) = 44.31$, $p < .001$ (see Table 2). The assumption for sphericity was met for

tailoring, so no correction was applied (see Table 1 for descriptives). Participants viewed

high levels of tailoring on résumés within the situations to be significantly less fair than

low tailoring, or no tailoring (see Table 3).

Table 3
Estimated Marginal Means for Fairness of the Situation by Tailoring

	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
High	3.26	.082	3.10	3.42
Low	2.52	.074	2.37	2.66
None	2.38	.066	2.25	2.51

Pairwise comparisons were conducted with Bonferroni adjustments using estimated marginal means to determine where the significant differences were between the tailoring groups (see Table 4). Significant differences were found between high and low tailoring ($p < .001$) and high and no tailoring ($p < .001$). There was no significant difference between low and no tailoring. The results seem to imply that the situation is less fair when there are high amounts of tailoring added into résumés compared to low tailoring and no tailoring. There was no significant interaction of the two variables.

Table 4
Pairwise Comparisons for Fairness of the Situation by Tailoring

(I) Tailoring	(J) Tailoring	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
					Lower Bound	Upper Bound
High	Low	.743*	.102	.000	.497	.990
	None	.885*	.102	.000	.637	1.13
Low	High	-.743*	.102	.000	-.990	-.497
	None	.142	.099	.460	-.097	.381
None	High	-.885*	.102	.000	-1.13	-.637
	Low	-.142	.099	.460	-.381	.097

Based on estimated marginal means
*. The mean difference is significant at the .05 level.
b. Adjustment for multiple comparisons: Bonferroni

Gender and Fairness

Hypothesis 3: Females will have lower perceptions of procedural fairness when an automated decision making agent is presented in the situations.

A RM-ANOVA was conducted to determine if there was a significant difference between perceptions of fairness of screening agents while adding gender as a between subjects factor. The individual main effects for screening agent and tailoring were still significant. There was, however, no significant main effect for résumé screening agent while controlling for gender. A significant interaction was found between perceptions of fairness of résumé tailoring and gender, $p = .023$, $F(2,288) = 3.73$, $p = .025$. The assumption for sphericity was met for the interaction, so no correction was applied. Participants viewed more tailoring on résumés within the situations to be less fair than no tailoring or low tailoring. Figure 1 displays the results that male participants viewed the high and no tailoring scenarios as less fair than female participants, but viewed low tailoring as slightly more fair. Male participants also viewed no "tailoring as less fair than low tailoring. Females did not view low and no tailoring differently.

	High	Low	None
Male	3.04	2.61	2.22
Female	3.44	2.48	2.49

Level of Resume Tailoring
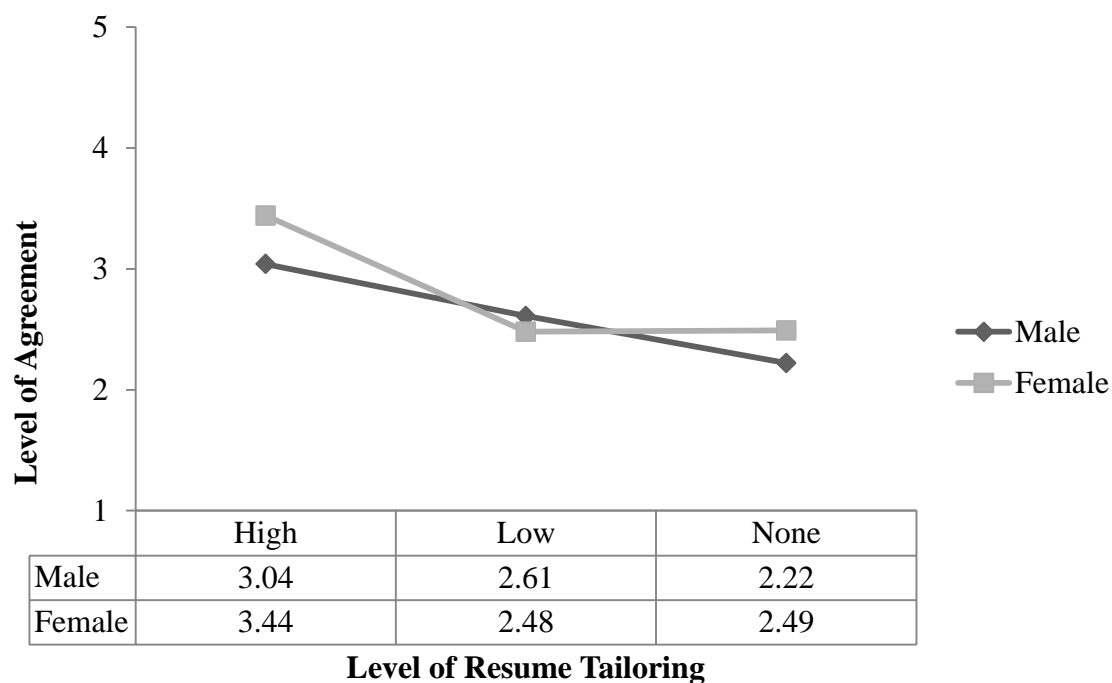
Figure 1. Fairness of Situations with Résumé Tailoring and Gender

Note: Perceptions of these situations were measured on a five point Likert-type (strongly agree = 1, and strongly disagree = 5) scale.

Experience Applying Online

Hypothesis 4: Participants with previous online application experience will view automated decision making agents as more procedurally fair than participants with low or no previous online application experience.

A RM-ANOVA was conducted to determine if there were significant differences between participants who had previous application experience in regards to their perceptions of fairness among the situations. The question regarding whether or not the participant had applied for a job within the last two years as a between subjects factor

included in the analysis. Out of the 146 participants that responded to the question, 79% had applied for a job within the last two years, and only 21% had not applied for a job.

There was no significant difference of perceptions of fairness of the situations in regards to résumé screening agent or résumé tailoring between participants that had applied for a job within the past two years.

Ethics of Résumé Screening and Résumé Tailoring

Research Question 1: Will participants view the human résumé screening agent as an ethical procedure?

A repeated measures ANOVA (RM-ANOVA) was conducted to determine if there were significant differences of perceptions of ethicality between the levels of résumé screening agents (human versus automated) and résumé tailoring (high, low, or none). Ethicality was assessed based on the item from the modified, six-point, ethics scale labeled "Unethical to Ethical". All descriptive statistics for this analysis may be found in Table 5.

Table 5
Descriptive Statistics for Ethicality of the Situation

	Mean	SD	*n*
Human			
High	3.64	1.68	148
Low	4.73	1.34	148
None	4.96	1.13	148
Automated			
High	3.17	1.60	148
Low	4.23	1.52	148
None	4.40	1.35	148

The results show that there was a main effect for ethicality of résumé screening agent, $F(1,147) = 36.84$, $p < .001$ (see Table 6). Mauchly's test did not indicate information about sphericity in regards to résumé screening agent, therefore degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity ($\varepsilon = 1.00$). Human screening agents (M = 4.42) within the situations were viewed as more ethical than automated screening agents (M = 3.87). The results imply that the situation is viewed as more ethical when a person screens résumés compared to an automated screening of résumés.

Table 6
RM-ANOVA for Ethicality of the Situation

		Type III Sum of Squares	df	Mean Square	F
Screening Agent	Greenhouse-Geisser	66.50	1	66.50	36.84**
Tailoring	Huynh-Feldt	330.98	1.93	171.72	51.50**

**$p < .001$

A significant main effect was also found for perceptions of ethicality in terms of résumé tailoring, $F(1.927, 283.336) = 51.50$, $p < .001$. All descriptive statistics for this analysis may be found in Table 5. The assumption for sphericity indicated that it had been violated, therefore a correction of degrees of freedom for tailoring was corrected using Huynh-Feldt estimates of sphericity ($\varepsilon = 0.952$). Participants viewed high levels of tailoring on résumés within the situations to be significantly less ethical than low tailoring, or no tailoring (see Table 7). There was no significant interaction of the two variables.

Table 7

Estimated Marginal Means for Ethicality of the Situation

	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
High	3.29	.12	3.05	3.53
Low	4.44	.10	4.23	4.64
None	4.70	.09	4.52	4.88

Pairwise comparisons were conducted with Bonferroni adjustments using estimated marginal means to determine where the significant differences were between the ethicality of the groups (see Table 8). Significant differences were found between high and low tailoring ($p < .001$) and high and no tailoring ($p < .001$). There was no significant difference between low and no tailoring. The results seem to imply that the situation is less ethical when there are high amounts of "tailoring" added into résumés compared to low tailoring and no tailoring. There was no significant interaction of the two variables.

Table 8

Pairwise Comparisons for Ethicality of the Situation by Tailoring

(I) Tailoring	(J) Tailoring	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
					Lower Bound	Upper Bound
High	Low	-1.145[*]	.141	.000	-1.486	-.805
	None	-1.405[*]	.163	.000	-1.800	-1.011
Low	High	1.145[*]	.141	.000	.805	1.486
	None	-.260	.137	.179	-.592	.072
None	High	1.405[*]	.163	.000	1.011	1.800
	Low	.260	.137	.179	-.072	.592

Based on estimated marginal means
*. The mean difference is significant at the .05 level.
b. Adjustment for multiple comparisons: Bonferroni

Wasting Time

Research Question 2: Which situation will participants believe wastes the applicant's

time?

Research Question 3: Which situation will participants believe wastes the company's

time?

Two RM-ANOVAs were conducted to determine if there were significant

differences of participants perceptions of the situation wasting the applicants and the

companies time among the levels of résumé screening agents (human versus automated)

and the levels of résumé tailoring (high, low, or none). The first analysis was conducted

to determine if there was a significant difference of participants perceptions of the

situation wasting the applicant's time among the levels of résumé screening agents

(human versus automated) and the levels of résumé tailoring (high, low, or none). A

single statement regarding the situation wasting the applicant's time was used as the

dependent variable. The situation that wastes the applicant's time more than the other

situations is the situation with the automated screening agent with a high amount of

tailoring on the résumé (M = 2.95). There was a main effect for résumé screening agent,

$F(1,147) = 16.07$, $p < .001$. All descriptive statistics for this analysis may be found in

Table 9. Mauchly's test did not indicate information about sphericity in regards to

résumé screening agent, therefore degrees of freedom were corrected using Greenhouse-

Geisser estimates of sphericity ($\varepsilon = 1.00$; see Table 10). Automated screening agents (M

= 3.50) within the situations were perceived to waste the applicant's time significantly

more than human screening agents (M = 3.19).

Table 9

Descriptive Statistics for Wasting the Applicant's Time

	Mean	SD	*n*
Human			
High	3.19	1.214	148
Low	3.76	1.129	148
None	3.54	1.103	148
Automated			
High	2.95	1.214	148
Low	3.51	1.175	148
None	3.09	1.157	148

Table 10
RM-ANOVA for Wasting the Applicant's Time

		Type III Sum of Squares	df	Mean Square	*F*
Screening Agent	Greenhouse-Geisser	21.446	1.000	21.446	16.066
Tailoring	Huynh-Feldt	46.773	1.933	24.196	15.181

**p < .001

A significant main effect was also found for participants perceptions of the

situation wasting the applicant's time in regards to résumé tailoring, $F(1.933, 284.164) =$

15.18, $p < .001$ (see Table 10). All descriptive statistics for this analysis may be found in

Table X. The assumption for sphericity indicated that it had been violated, therefore a

correction of degrees of freedom for tailoring was corrected using Huynh-Feldt estimates

of sphericity ($\varepsilon = 0.967$). Participants viewed high levels of tailoring on résumés within

the situations to waste the applicant's time significantly more than low tailoring, or no

tailoring (see Table 11).

Table 11
Estimated Marginal Means for Wasting the Applicant's Time by Tailoring

	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
High	3.071	.083	2.907	3.235
Low	3.632	.076	3.482	3.782
None	3.318	.075	3.169	3.467

Pairwise comparisons were conducted with Bonferroni adjustments using

estimated marginal means to determine where the significant differences were between

the tailoring groups in terms of wasting the applicant's time (see Table 12). Significant

differences were found between high and low tailoring ($p < .001$) and low and no

tailoring ($p < .001$). There was no significant difference between high and no tailoring.

The results seem to imply that the situation wastes the applicant's time more when there

is a high amount of tailoring added into résumés compared to a low amount of tailoring

and when there is a low amount of tailoring compared to no tailoring. There was no

significant interaction of the two variables.

Table 12
Pairwise Comparisons for Fairness of the Situation by Tailoring for Wasting the
Applicant's Time

(I) Tailoring	(J) Tailoring	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
					Lower Bound	Upper Bound
High	Low	-.561[*]	.090	.000	-.779	-.342
	None	-.247	.108	.071	-.508	.015
Low	High	.561[*]	.090	.000	.342	.779
	None	.314[*]	.107	.012	.055	.573
None	High	.247	.108	.071	-.015	.508
	Low	-.314[*]	.107	.012	-.573	-.055

Based on estimated marginal means
*. The mean difference is significant at the .05 level.
b. Adjustment for multiple comparisons: Bonferroni

The second RM-ANOVA was conducted to determine if there was a significant difference of wasting the company's time among the levels of résumé screening agents (human versus automated). A single statement regarding the situation wasting the company's time was used as the dependent variable. The situation that wastes the company's time more than the other situations is the situation with the automated screening agent with a high amount of tailoring on the résumé (M = 2.66).The results show that there was a main effect for wasting the company's time in terms of résumé screening agent, $F(1,147) = 4.47$, $p = .031$. Human screening agents (M = 3.29) within the situations were viewed to waste the company's time less than automated screening agents (M = 3.14). All descriptive statistics for this analysis may be found in Table 13. Mauchly's test did not indicate information about sphericity in regards to résumé screening agent, therefore degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity ($\varepsilon = 1.00$) (see Table 14).

Table 13
Descriptive Statistics for Wasting the Company's Time

	Mean	SD	*n*
Human			
High	2.86	1.315	148
Low	3.61	1.141	148
None	3.40	1.147	148
Automated			
High	2.66	1.244	148
Low	3.47	1.192	148
None	3.31	1.062	148

Table 14
RM-ANOVA for Wasting the Company's Time

		Type III Sum of Squares	df	Mean Square	*F*
Screening Agent	Greenhouse-Geisser	4.613	1.000	4.613	4.740*
Tailoring	Huynh-Feldt	98.655	1.901	51.889	25.789**

**p < .001; * < .05*

There was also a significant main effect was found for tailoring, $F(1.901, 279.489) = 25.79$, $p < .001$ (see Table 14). All descriptive statistics for this analysis may be found in Table X. The assumption for sphericity indicated that it had been violated, therefore a correction of degrees of freedom for tailoring was corrected using Huynh-Feldt estimates of sphericity ($\varepsilon = 0.939$). Participants viewed high levels of tailoring on résumés within the situations to waste the company's time significantly more than low tailoring, or no tailoring (see Table 15).

Table 15
Estimated Marginal Means for Wasting the Company's Time by Tailoring

	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
High	2.757	.092	2.576	2.938
Low	3.537	.079	3.381	3.694
None	3.355	.077	3.203	3.506

Pairwise comparisons were conducted with Bonferroni adjustments using estimated marginal means to determine where the significant differences were between the tailoring groups in terms of wasting the company's time (see Table 16). Significant differences were found between high and low tailoring ($p < .001$) and high and no

tailoring ($p < .001$). There was no significant difference between low and no tailoring.

The results seem to imply that the situation wastes the applicant's time more when there

is a high amount of tailoring added into résumés compared to a low amount of tailoring

and when there is a high amount of tailoring compared to no tailoring. There was no

significant interaction of the two variables.

Table 16

Pairwise Comparisons for Fairness of the Situation by Tailoring for Wasting the Company's Time

(I) Tailoring	(J) Tailoring	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
					Lower Bound	Upper Bound
High	Low	-.780[*]	.101	.000	-1.026	-.535
	None	-.598[*]	.126	.000	-.904	-.292
Low	High	.780[*]	.101	.000	.535	1.026
	None	.182	.112	.315	-.088	.453
None	High	.598[*]	.126	.000	.292	.904
	Low	-.182	.112	.315	-.453	.088

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni

Identifying the Best Candidate

Research Question 4: Which situation will participants believe identifies the best

candidate?

A RM-ANOVA was conducted to determine if there was a significant difference

in perceptions of participants regarding identifying the best candidate among the levels of

résumé screening agents (human versus automated) and résumé tailoring (high, low, or

none) in each of the situations presented in the survey. A single statement regarding the

situation identifying the best candidate was used as the dependent variable.

The results show that there was a main effect for applicant's perceptions of the

situation identifying the best candidate in terms of résumé screening agent, $F(1,147) =$

52.05, $p < .001$. All descriptive statistics for this analysis may be found in Table 17.

Mauchly's test did not indicate information about sphericity in regards to résumé

screening agent, therefore degrees of freedom were corrected using Greenhouse-Geisser

estimates of sphericity ($\varepsilon = 1.00$) (see Table 18). The situation that identifies the best

candidate more than the other situations is the situation with the human screening agent

with a low amount of tailoring on the résumé (M = 2.37). Human screening agents (M =

2.72) within the situations were viewed to identify the best candidate more than

automated screening agents (M = 3.30).

Table 17
Descriptive Statistics for Identifying the Best Candidate

	Mean	SD	*n*
Human			
High	3.15	1.280	148
Low	2.37	1.096	148
None	2.64	1.179	148
Automated			
High	3.66	1.086	148
Low	2.97	1.195	148
None	3.27	1.060	148

Table 18
RM-ANOVA for Identifying the Best Candidate

		Type III Sum of Squares	df	Mean Square	F
Screening Agent	Greenhouse-Geisser	74.959	1.000	74.959	52.048**
Tailoring	Huynh-Feldt	80.218	2	40.109	31.132**

$**p < .001; * < .05$

A significant main effect applicant's perceptions of the situation identifying the best candidate was also found for résumé tailoring, $F(2,294) = 31.13, p < .001$ (see Table X) in terms of identifying the best candidate. All descriptive statistics for this analysis may be found in Table 17. The assumption for sphericity was met, so no correction was applied. Participants rated high levels of tailoring on résumés within the situations to identify the best candidate significantly less than low tailoring or no tailoring (see Table 19).

Table 19
Estimated Marginal Means for Identifying the Best Candidate by Tailoring

	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
High	3.402	.077	3.249	3.555
Low	2.672	.073	2.527	2.817
None	2.953	.069	2.816	3.089

Pairwise comparisons were conducted with Bonferroni adjustments using estimated marginal means to determine where the significant differences were between the tailoring groups in terms of identifying the best candidate (see Table 20). Significant

differences were found between high and low tailoring ($p < .001$), high and no tailoring

($p < .001$), and low and no tailoring ($p = .010$). The results seem to imply that the

situation identifies the best candidate more when there is a high amount of "tailoring"

added into résumés compared to a low amount of tailoring, when there is a high amount

of tailoring compared to no tailoring, and when there is a low amount of tailoring

compared to no tailoring. There was no significant interaction of the two variables.

Table 20

Pairwise Comparisons for Identifying the Best Candidate by Tailoring

(I) Tailoring	(J) Tailoring	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
					Lower Bound	Upper Bound
High	Low	.730[*]	.087	.000	.520	.939
	None	.449[*]	.099	.000	.209	.690
Low	High	-.730[*]	.087	.000	-.939	-.520
	None	-.280[*]	.093	.010	-.507	-.054
None	High	-.449[*]	.099	.000	-.690	-.209
	Low	.280[*]	.093	.010	.054	.507

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni

Applicant Gets Noticed

Research Question 5: Which situation will participants believe helps the applicant get

noticed?

A RM-ANOVA was conducted to determine if there was a significant difference

in participants perceptions of the situation helping the applicant get noticed among the

levels of résumé screening agents (human versus automated) and among the levels of

résumé tailoring (high, low, or none). A single statement regarding the situation helping

the applicant get noticed was used as the dependent variable. All descriptive statistics for

this analysis may be found in Table 21.

The situation that helps the applicant get noticed more than the other situations is

the situation with the human screening agent with a low amount of tailoring on the

résumé (M = 1.87). The results show that there was a main effect for résumé screening

agent, $F(1,147) = 14.89,\ p < .001$. Mauchly's test did not indicate information about

sphericity in regards to résumé screening agent, therefore degrees of freedom were

corrected using Greenhouse-Geisser estimates of sphericity ($\varepsilon = 1.00$) (see Table 22).

Automated screening agents (M = 2.34) within the situations were perceived help the

applicant get noticed significantly more than human screening agents (M = 2.60).

Table 21
Descriptive Statistics for Helping the Applicant Get Noticed

	Mean	SD	*n*
Human			
High	2.05	.898	148
Low	1.87	.843	148
None	3.10	1.129	148
Automated			
High	2.22	1.066	148
Low	2.07	.983	148
None	3.51	.979	148

Table 22
RM-ANOVA for Helping the Applicant Get Noticed

		Type III Sum of Squares	df	Mean Square	*F*
Screening Agent	Greenhouse-Geisser	14.893	1.000	14.893	14.967**
Tailoring	Huynh-Feldt	312.899	1.605	195.002	148.806

**p < .001

A significant main effect was also found for résumé tailoring, *F* (1.605,235.875) = 148.81, *p* < .001 (see Table 21). The assumption for sphericity indicated that it had been violated, therefore a correction of degrees of freedom for tailoring was corrected using Huynh-Feldt estimates of sphericity ($\varepsilon = 0.795$). Participants viewed low levels of tailoring on résumés within the situations to help the applicant get noticed significantly more than high levels of tailoring or no tailoring (see Table 23).

Table 23
Estimated Marginal Means for Helping the Applicant Get Noticed by Tailoring

	Mean	Std. Error	95% Confidence Interval Lower Bound	Upper Bound
High	2.132	.064	2.006	2.258
Low	1.973	.056	1.862	2.084
None	3.304	.069	3.168	3.440

Pairwise comparisons were conducted with Bonferroni adjustments using estimated marginal means to determine where the significant differences were between the tailoring groups in terms of helping the applicant get noticed (see Table 24). Significant differences were found between high and low tailoring (*p* = .027), high and no

tailoring ($p < .001$), and low and no tailoring ($p < .001$). The results seem to imply that

the situation helps the applicant get noticed more when there is a low amount of

"tailoring" added into résumés compared to a high amount of tailoring and when there is

a no amount of tailoring compared to no tailoring. There was no significant interaction of

the two variables.

Table 24
Pairwise Comparisons for Helping the Applicant Get Noticed by Tailoring

(I) Tailoring	(J) Tailoring	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
					Lower Bound	Upper Bound
High	Low	.159[*]	.060	.027	.014	.304
	None	-1.172[*]	.098	.000	-1.409	-.936
Low	High	-.159[*]	.060	.027	-.304	-.014
	None	-1.331[*]	.090	.000	-1.550	-1.112
None	High	1.172[*]	.098	.000	.936	1.409
	Low	1.331[*]	.090	.000	1.112	1.550

Based on estimated marginal means
*. The mean difference is significant at the .05 level.
b. Adjustment for multiple comparisons: Bonferroni

Non-Traditional Applicant Gets Selected

Research Question 6: Which situation will participants believe helps non-traditional

applicants get selected?

A RM-ANOVA was conducted to determine if there was a significant difference

in applicants perceptions of the situation allowing non-traditional applicants to get

selected among the levels of résumé screening agents (human versus automated) and

among the levels of résumé tailoring (high, low, or none). A single statement regarding

the situation helping the non-traditional applicants get selected was used as the dependent variable. All descriptive statistics for this analysis may be found in Table 25.

The results show that there was a main effect for résumé screening agent, F (1,146) = 12.159, p = .001. Mauchly's test did not indicate information about sphericity in regards to résumé screening agent, therefore degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity (ε = 1.00) (see Table 26). The situation that helps non-traditional applicants get selected more than the other situations is the situation with the human screening agent with a low amount of tailoring on the résumé (M = 2.62). Human screening agents (M = 2.74) within the situations were perceived help non-traditional applicants get selected significantly more than automated screening agents (M = 2.99).

Table 25
Descriptive Statistics for Helping Non-Traditional Applicants Get Selected

	Mean	SD	*n*
Human			
High	2.75	.992	147
Low	2.62	.995	147
None	2.84	.991	147
Automated	2.92	1.050	147
High	2.86	1.083	147
Low	3.19	1.056	147
None	2.75	.992	147

Table 26
RM-ANOVA for Helping Non-Traditional Applicants Get Selected

		Type III Sum of Squares	df	Mean Square	*F*
Screening Agent	Greenhouse-Geisser	14.222	1.000	14.222	12.159*
Tailoring	Huynh-Feldt	11.571	1.834	6.309	5.744*

**p < .001; *p < .05

A significant main effect was also found for tailoring, *F* (1.834, 267.768) = 5.74,

p = .005 (see Table 26). The assumption for sphericity indicated that it had been

violated, therefore a correction of degrees of freedom for tailoring was corrected using

Huynh-Feldt estimates of sphericity (ε = 0.906). Participants viewed low levels of

tailoring on résumés within the situations to help the applicant get noticed significantly

more than and no tailoring (see Table 27).

Table 27
Estimated Marginal Means for Helping Non-Traditional Applicants Get Selected by Tailoring

	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
High	2.833	.069	2.698	2.969
Low	2.741	.070	2.603	2.880
None	3.017	.062	2.895	3.139

Pairwise comparisons were conducted with Bonferroni adjustments using

estimated marginal means to determine where the significant differences were between

the tailoring groups in terms of helping the applicant get noticed (see Table 28).

Significant differences were found between low and no tailoring (*p* = .009). The results

seem to imply that the situation helps the non-traditional applicants get selected more

when there is a low amount of tailoring added into résumés compared to a no tailoring.

There was no significant interaction of the two variables.

Table 28

Pairwise Comparisons for Helping Non-Traditional Applicants Get Selected by Tailoring

(I) Tailoring	(J) Tailoring	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
					Lower Bound	Upper Bound
High	Low	.092	.068	.545	-.074	.258
	None	-.184	.087	.110	-.395	.027
Low	High	-.092	.068	.545	-.258	.074
	None	-.276[*]	.091	.009	-.496	-.055
None	High	.184	.087	.110	-.027	.395
	Low	.276[*]	.091	.009	.055	.496

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni

Impression Management

Research Question 7: Is impression management correlated with perceptions of fairness

within the situations?

A RM-ANOVA was conducted with a computed impression management mean

score as a covariate to determine whether or not impression management had an impact

on the perceptions of fairness of the situations presented to the participants. Impression

management was added as a covariate in the RM-ANOVA and no significant main

effects or interactions were for impression management.

CHAPTER IV: DISCUSSION

This study expands the literature on the topic of applicant's perceptions of online résumé submission as well as tailoring résumés when applicants apply to jobs. The number of companies that use online résumé screening as opposed to actual company representatives screening résumés seems to grow daily. Due to this fact it was important to determine whether or not participants believed that the method in which companies screen résumés is, in fact, a fair and ethical way of screening applicants. The findings of this study support several of the hypotheses. The implications regarding the research questions also add additional evidence to the main hypotheses.

Fairness

The first hypothesis "Human résumé screening agent will be viewed as more procedurally fair than an automated screening system." was supported by our research and found results similar to Dineen et al. (2004). Human résumé screening agents were found to be fairer than an automated screening system. This finding supports applicant's criticism of feeling like submitting their résumés to online portals is like putting their résumé in "black holes" (Weber & Silverman, 2012). Organizations should be aware that applicant's believe that submitting their résumé to a person rather than an automated system is more fair, this could have implications of applicant's withdrawing from the process if they feel that that they aren't being treated fairly. The second fairness hypotheses, "Participants will view having a résumé that has no keywords added or "tailored" as more procedurally fair than "tailored" résumés (both low and high.", was also supported by our research. Participants did, in fact, view scenarios that presented

information regarding no résumé tailoring as fairer than both low and high tailoring. The significant differences in the résumé tailoring were between high and low as well as high and no tailoring. This indicates that participants viewed high levels of résumé tailoring as less fair than the other groups. Participants did not view low tailoring and no tailoring as significantly different. This finding seems to indicate that applicants may, in fact, see résumé tailoring as a normal practice when submitting résumés online – that there is no difference in submitting a standard résumé or a slightly tailored résumé to jobs.

Gender and Fairness

Hypothesis three, "Females will have lower perceptions of procedural fairness when an automated decision making agent is presented in the situations." was not found to be significant. There was, however, a significant interaction between perceptions of fairness in regards to résumé tailoring and gender. Female participants thought that high levels of résumé tailoring were significantly less fair than male participants. Female participants also did not seem to report any significant difference between low and no tailoring, whereas male participants found no tailoring to be the most fair. This finding supports previous research regarding female perceptions of procedural fairness being highly important (Dineen et al., 2004; Sweeney & McFarlin, 1997). When the scenarios presented high levels of tailoring, they found them to be much less fair than male participants.

Online Application Experience

Hypothesis four, "participants with previous online application experience will view automated decision making agents as more procedurally fair than participants with

low or no previous online application experience", was not found to be significant. This finding could be due to the fact that only a small percentage (21%) of the participants in this study had not applied for a job within the last two years. Another reason for this finding might be due to the fact that technology along with online résumé submission has become much more prevalent in society, and participants may be used to this new way of applying online. In fact, only 6% of participants stated that they were "not at all familiar" with applying to jobs online, and 52% of participants stated that they would be "likely" or "very likely" to apply to a job that uses an online screening system.

Ethics of Résumé Screening and Résumé Tailoring

A significant difference was found between participant's ethical perceptions of the scenarios in terms of screening agent and résumé tailoring. The human screening agent was found to be more ethical than the automated screening agent, and high levels of résumé tailoring was less ethical than both low and no résumé tailoring. These results identically mirrored the findings for the fairness hypothesis, suggesting that fairness and ethicality of these situations were viewed on the same level of participants.

Wasting Time

The two research questions regarding wasting the applicant's time and wasting the company's time both had the same results. Participants believed that automated systems wastes time overall. These results are not quite as intuitive as the rest of the results. This could be the result of the questions being so similar. Also, the significant difference among the levels of résumé tailoring was different in these two questions. Participants stated that high levels of tailoring wastes more of the applicants time than

both low and no tailoring; however, they stated that low levels of tailoring wastes more of the company's time than both high and no tailoring on résumés.

The human screening agent and low résumé tailoring were found to help identify the best candidate, the automated screening agent and low résumé tailoring were found to help the applicant get noticed, and the human screening agent and low résumé tailoring were found to help non-traditional applicants get selected. Participants seemed to believe that in order to determine the best candidate for the position, an actual person screening résumés along and low amounts of résumé tailoring would be the ideal situation. In order to help applicant's get noticed, participants thought that an automated résumé screening system and low résumé tailoring would be ideal. It seems as though these two questions conflict with each other a bit. In both situations, participants believed a low amount of résumé tailoring would be ideal, but for some reason participants had different preferences in identifying the best candidate and helping applicants get noticed. In order to help non-traditional applicants get selected, participants reported that an actual person screening résumés along with low résumé tailoring would be ideal. This finding mirrors participant's views of identifying the best candidate.

Finally, impression management was not found to have an impact of fairness perceptions of participants.

Limitations and Future Research

The current study has strength in the fact that it was a repeated measures design. These designs are more powerful because individual differences are taken out of the situation. In essence, each participant acted as its own control. The error term was also

smaller, resulting in larger F statistics. Also, this study did not require as many participants because the error term was smaller, resulting in more power.

Some negative effects of using this repeated measures design is that there could have been practice or carry-over effects. The demand characteristics might also be of concern due to the six repeated scenarios and only minor manipulations within each scenario. Future research could aim to create a larger study without repeated measures to remedy this limitation.

Internal validity might have been affected due to the demand characteristics. The repetition of the scenarios and introductory information might have given participants too much of an expectation about what was going on. This was taken into consideration when preparing all materials. External validity threats might have included generalizability to the population. This study aimed to determine applicant's perceptions of online résumé submission; however, the actual study used college students as the cases with hopes to have a population that has applied to jobs online in the past. It was found, however, that 80% had in fact applied to a job in the past two years, so this population would be said to be generalizable to applicants who would be applying for jobs.

This research adds to the body of literature regarding technology in selection and perceptions of selection procedures. While most research covers the organizational benefits to utilizing online selection methods, little research has been conducted to determine applicant's perceptions in this matter. This study has added to that body of literature.

Conclusion

This study examined applicant's perceptions of the online résumé submission process as well as tailoring résumés, or tailoring, in terms of fairness, ethicality, and several other variables. Participants viewed human screening agents as more procedurally fair as well as a more ethical screening process. Since organizations are quickly becoming dependent on technology in the recruiting and selection process, they may not be able to have actual company representatives screen all résumés. Organizations could, however, make sure to have some processes in these initial stages of the process that make them feel as if there is a human component to the process. An example of this would be to incorporate feedback into the résumé submission process. A simple automated email letting applicant's know that their résumé was received and is being reviewed could help combat the feeling of submitting résumés into "black holes". They also viewed tailoring résumés with additional information regardless of whether that information is factual as less fair and ethical. Tailoring résumés with low amounts of tailoring was also found to be the best way to get noticed when applying for a job. This finding exemplifies the idea that adding some keywords to a résumé when applying for a job is justifiable, but adding things that are not necessarily true might cross an ethical line. Organizations must be aware that some applicants will add information to résumés in order to be passed through the automated system and should ensure that there are checks in place to make sure the most qualified applicants are getting through the process. An additional study could be conducted to determine if these findings would be consistent yet again, and future researchers might also want to consider adding in a variable regarding feedback. As previously stated, providing applicants with feedback

during the initial screening process would be one way to bridge the gap regarding the fact that applicants feel that an automated screening system is less fair and ethical than having an actual person screening their résumé. If an applicant was provided feedback regarding the status of their application or résumé, it would, perhaps, make the applicant feel that the situation is less ambiguous and ultimately a fairer, more ethical situation.

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APPENDICES

Appendix A

Manipulated Scenarios

Variable	Manipulated Scenarios		
Résumé Screening Agent	**Human**: Jane, an actual company human resources representative reviews all of the résumés submitted online. She carefully reviews the content of the résumé to determine the candidates that are qualified to interview.	NA	**Automated**: An automated system, or applicant tracking system, receives and reviews all of the résumés submitted online. The system parses the content of the résumé searching for keywords to determine the candidates that are qualified to interview.
Résumé Tailoring	**None**: Mark does not tailor his résumé to the specific job posting; the résumé he submits is a general résumé that includes a brief summary of his experience and educational background. The résumé that is submitted is standard, and is the same general résumé that Mark submits to all jobs that he applies for online.	**Low**: Mark tailors his résumé to the specific job posting by adding some of the keywords found in the description of the job that matches his current qualifications. He also reviews the company website to determine the mission and values of the organization and uses this in addition to the keywords described in the posting to help tailor his résumé to match the company and the position.	**High**: Mark tailors his résumé to the specific job posting by adding keywords found in the description of the job regardless of if they match his current qualifications. The keywords that he adds are found in the job description of the position that he is applying for. Mark also reviews the company website to determine the mission and values of the organization and uses this in addition to the keywords described in the posting to help tailor his résumé to match the company and the position.

Appendix B

Survey

Applying Online: Applicant Perceptions of Online Résumé Submission SONA VERSION
Q1 Principal Investigator: Jessica Stidham
Study Title: Applying Online: Applicant Perceptions of Online Résumé Submission
Institution: Middle Tennessee State University
The following information is provided to inform you about the research project and your participation in it. Your participation in this research study is voluntary. You are also free to withdraw from this study at any time.
Study Description: The purpose of this study is to determine applicant reactions to online selection procedures. You will be asked to answer questions regarding situations that involve applying for jobs; this study should take approximately 30 minutes.
Compensation for Participation: Course credit may be given to participants.
Contact Information: If you should have any questions or concerns about this research study, please feel free to contact Jessica Stidham at jls2ge@mtmail.mtsu.edu, or Dr. Judith Van Hein at Judith.VanHein@mtsu.edu, or the MTSU Office of Compliance at (615) 494-8918.
Restriction(s): You must be at least 18 years of age and currently enrolled at MTSU to participate in this study.
To get credit in the SONA System, you MUST reach the end of the survey.
By clicking the button to Continue, I indicate that I am at least 18 and that I have read and understand this informed consent document and voluntarily choose to participate in this study.
Q4 Introduction/Frame of Reference: When you are completing the following survey, please read carefully and try to keep in mind any previous experience that you might have had in regards to applying for jobs online. You can apply for jobs online via the company website, job search sites (e.g., Monster.com and Indeed.com), social networking sites (e.g., LinkedIn), and many more. If you have not applied for a job online in the past, please try to answer the questions in regards to how you would feel if you had applied online.
Q5 When applying for jobs online, you often submit your résumé via an online portal. This portal is most often called an applicant tracking system. In an applicant tracking system (ATS) two different résumé screening procedures can be conducted. Recruiters and hiring managers have the ability to either review all résumés that are submitted online manually. An example of recruiters or hiring managers personally reading résumés would be: Sally submitted her résumé via an online portal. Once the résumé is submitted, the hiring manager views her résumé to determine whether or not he/she thinks she is a qualified candidate for the position. These systems can parse submitted résumés for keywords. An example of an applicant tracking system (ATS) parsing résumés for keywords would be: The hiring manager sets up the ATS to parse (or search) the submitted résumés for keywords. Sally submits her résumé via an online portal. Once

the résumé is submitted the ATS electronically scans her résumé to determine whether she is a qualified candidate based on the keyword search. Parsing simply means that the system has the capability to process online résumés by searching for words, phrases, or strings of keywords from the résumé. In order for the system to parse résumés, recruiters or hiring managers must program the ATS to search for keywords in the electronically submitted résumés. If keywords are found, the recruiters or hiring managers are alerted by the system of a potential candidate for the specific job.

Q6 1. The process a system uses to go through online résumés by searching for words, phrases, or strings of keywords from the résumé is called _____.

❍ splitting (1)
❍ editing (2)
❍ parsing (3)
❍ uploading (4)

Q7 When applying for jobs, applicants provide a résumé for the recruiters or hiring managers to review in hopes of being selected for the particular job. Résumés often include contact information, education background and professional certifications, and previous job experience. Applicants can submit résumés in different ways.   Some applicants submit the same résumé to all jobs. An example of this would be: Sally has a résumé that she keeps updated with all her current contact information, education background, and professional certifications, and previous job experience. She submits the same résumé to every job she applies for online and does not change it to the specific job posting. Some applicants review the description of the job they are applying for in order to make changes to the language or add keywords to their résumé to ensure that it fits the position that they are applying for An example of this would be: Sally has a résumé that she keeps updated with all her current contact information, education background, and professional certifications, and previous job experience. She looks at the job posting to determine what keywords the posting uses and adds keywords, in the company's terminology, that is another way to describe her previous experience. Once she has matched keywords to her current skillset and her résumé is tailored to that particular job, she submits her résumé. Some applicants may add in information from the job description (regardless of whether they have that particular skill or ability) in hopes of being selected for a particular job. An example of this would be: Sally has a résumé that she keeps updated with all her current contact information, education background, and professional certifications, and previous job experience. She looks at the job posting to determine what keywords the posting uses and adds keywords from the job posting into her résumé. The keywords do not match her previous experience and do not necessarily reflect her actual qualifications. She submits the résumé to the job posting after it has been edited.

Q8 After reading the information above, which résumé submission process is not mentioned?

❍ Adding keywords that are relevant to the applicants résumé (1)
❍ Submitting a friends résumé (2)
❍ Adding information regardless of whether the applicant has the skill or not (3)

○ Submitting the same résumé for all jobs (4)

Q47 The next section will consist of several different situations. Please read each situation carefully and answer the questions that follow.

Q9 Jane, an actual person in human resources, reviews all of the résumés submitted online. She carefully reviews the content of the résumé to determine the candidates that are qualified to interview. Mark tailors his résumé to the specific job posting by adding keywords found in the description of the job regardless of it they match his current qualifications. The keywords that he adds are found in the job description of the position that he is applying for. Mark also reviews the company website to determine the mission and values of the organization and uses this in addition to the keywords described in the posting to help tailor his résumé to match the company and the position.

Q7 Record your judgment of the situation using the scale below:

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)
Unfair:Fair (1)	○	○	○	○	○	○
Unjust:Just (2)	○	○	○	○	○	○
Unacceptable:Acceptable (3)	○	○	○	○	○	○
Unethical:Ethical (4)	○	○	○	○	○	○

Q10 Record your agreement for each question regarding the situation above.

	Strongly Agree (1)	Agree (2)	Neutral (3)	Disagree (4)	Strongly Disagree (5)
Wastes the applicant's time (1)	○	○	○	○	○
Wastes the company's time (2)	○	○	○	○	○
Identifies the best candidate (3)	○	○	○	○	○
Helps the applicant get noticed (4)	○	○	○	○	○
Helps non-traditional applicants be selected (5)	○	○	○	○	○
The situation is fair (6)	○	○	○	○	○

Q13 Jane, an actual person in human resources, reviews all of the résumés submitted online. She carefully reviews the content of the résumé to determine the candidates that are qualified to interview. Mark tailors his résumé to the specific job posting by adding some of the keywords found in the description of the job that matches his current qualifications. He also reviews the company website to determine the mission and values of the organization and uses this in addition to the keywords described in the posting to help tailor his résumé to match the company and the position.

Q14 Record your judgment of the situation using the scale below:

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)
Unfair:Fair (1)	❍	❍	❍	❍	❍	❍
Unjust:Just (2)	❍	❍	❍	❍	❍	❍
Unacceptable:Acceptable (3)	❍	❍	❍	❍	❍	❍
Unethical:Ethical (4)	❍	❍	❍	❍	❍	❍

Q51 Record your agreement for each question regarding the situation above.

	Strongly Agree (1)	Agree (2)	Neutral (3)	Disagree (4)	Strongly Disagree (5)
Wastes the applicant's time (1)	❍	❍	❍	❍	❍
Wastes the company's time (2)	❍	❍	❍	❍	❍
Identifies the best candidate (3)	❍	❍	❍	❍	❍
Helps the applicant get noticed (4)	❍	❍	❍	❍	❍
Helps non-traditional applicants be selected (5)	❍	❍	❍	❍	❍
The situation is fair (6)	❍	❍	❍	❍	❍

Q16 Jane, an actual person in human resources, reviews all of the résumés submitted online. She carefully reviews the content of the résumé to determine the candidates that are qualified to interview. Mark does not tailor his résumé to the specific job posting; the résumé he submits is a general résumé that includes a brief summary of his experience and educational background. The résumé that is submitted is standard, and is the same general résumé that Mark submits to all jobs that he applies for online.

Q17 Record your judgment of the situation using the scale below:

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)
Unfair:Fair (1)	○	○	○	○	○	○
Unjust:Just (2)	○	○	○	○	○	○
Unacceptable:Acceptable (3)	○	○	○	○	○	○
Unethical:Ethical (4)	○	○	○	○	○	○

Q54 Record your agreement for each question regarding the situation above.

	Strongly Agree (1)	Agree (2)	Neutral (3)	Disagree (4)	Strongly Disagree (5)
Wastes the applicant's time (1)	❍	❍	❍	❍	❍
Wastes the company's time (2)	❍	❍	❍	❍	❍
Identifies the best candidate (3)	❍	❍	❍	❍	❍
Helps the applicant get noticed (4)	❍	❍	❍	❍	❍
Helps non-traditional applicants be selected (5)	❍	❍	❍	❍	❍
The situation is fair (6)	❍	❍	❍	❍	❍

Q19 An automated system, or applicant tracking system, receives and reviews all of the résumés submitted online. The system parses the content of the résumé to determine the candidates that are qualified to interview. Mark tailors his résumé to the specific job posting by adding keywords found in the description of the job regardless of it they match his current qualifications. The keywords that he adds are found in the job description of the position that he is applying for. Mark also reviews the company website to determine the mission and values of the organization and uses this in addition to the keywords described in the posting to help tailor his résumé to match the company and the position.

Q20 Record your judgment of the situation using the scale below:

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)
Unfair:Fair (1)	❍	❍	❍	❍	❍	❍
Unjust:Just (2)	❍	❍	❍	❍	❍	❍
Unacceptable:Acceptable (3)	❍	❍	❍	❍	❍	❍
Unethical:Ethical (4)	❍	❍	❍	❍	❍	❍

Q55 Record your agreement for each question regarding the situation above.

	Strongly Agree (1)	Agree (2)	Neutral (3)	Disagree (4)	Strongly Disagree (5)
Wastes the applicant's time (1)	❍	❍	❍	❍	❍
Wastes the company's time (2)	❍	❍	❍	❍	❍
Identifies the best candidate (3)	❍	❍	❍	❍	❍
Helps the applicant get noticed (4)	❍	❍	❍	❍	❍
Helps non-traditional applicants be selected (5)	❍	❍	❍	❍	❍
The situation is fair (6)	❍	❍	❍	❍	❍

Q22 An automated system, or applicant tracking system, receives and reviews all of the résumés submitted online. The system parses the content of the résumé to determine the candidates that are qualified to interview. Mark tailors his résumé to the specific job posting by adding some of the keywords found in the description of the job that matches his current qualifications. He also reviews the company website to determine the mission and values of the organization and uses this in addition to the keywords described in the posting to help tailor his résumé to match the company and the position.

Q23 Record your judgment of the situation using the scale below:

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)
Unfair:Fair (1)	❍	❍	❍	❍	❍	❍
Unjust:Just (2)	❍	❍	❍	❍	❍	❍
Unacceptable:Acceptable (3)	❍	❍	❍	❍	❍	❍
Unethical:Ethical (4)	❍	❍	❍	❍	❍	❍

Q53 Record your agreement for each question regarding the situation above.

	Strongly Agree (1)	Agree (2)	Neutral (3)	Disagree (4)	Strongly Disagree (5)
Wastes the applicant's time (1)	❍	❍	❍	❍	❍
Wastes the company's time (2)	❍	❍	❍	❍	❍
Identifies the best candidate (3)	❍	❍	❍	❍	❍
Helps the applicant get noticed (4)	❍	❍	❍	❍	❍
Helps non-traditional applicants be selected (5)	❍	❍	❍	❍	❍
The situation is fair (6)	❍	❍	❍	❍	❍

Q25 An automated system, or applicant tracking system, receives and reviews all of the résumés submitted online. The system parses the content of the résumé to determine the candidates that are qualified to interview. Mark does not tailor his résumé to the specific job posting; the résumé he submits is a general résumé that includes a brief summary of his experience and educational background. The résumé that is submitted is standard, and is the same general résumé that Mark submits to all jobs that he applies for online.

Q26 Record your judgment of the situation using the scale below:

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)
Unfair:Fair (1)	❍	❍	❍	❍	❍	❍
Unjust:Just (2)	❍	❍	❍	❍	❍	❍
Unacceptable:Acceptable (3)	❍	❍	❍	❍	❍	❍
Unethical:Ethical (4)	❍	❍	❍	❍	❍	❍

Q56 Record your agreement for each question regarding the situation above.

	Strongly Agree (1)	Agree (2)	Neutral (3)	Disagree (4)	Strongly Disagree (5)
Wastes the applicant's time (1)	❍	❍	❍	❍	❍
Wastes the company's time (2)	❍	❍	❍	❍	❍
Identifies the best candidate (3)	❍	❍	❍	❍	❍
Helps the applicant get noticed (4)	❍	❍	❍	❍	❍
Helps non-traditional applicants be selected (5)	❍	❍	❍	❍	❍
The situation is fair (6)	❍	❍	❍	❍	❍

Q48 The following section pertains to your overall opinions. Please read each statement and respond using the scale provided.

Q26 An actual person in human resources reviews all of the résumés submitted online. The content of the résumé is carefully reviewed to determine the candidates that are qualified to interview. In general, I believe that this procedure is fair.
- ❍ Strongly Agree (1)
- ❍ Agree (2)
- ❍ Neutral (3)
- ❍ Disagree (4)
- ❍ Strongly Disagree (5)
- ❍

Q27 An automated system, or applicant tracking system, receives and reviews all of the résumés submitted online. The system parses the content of the résumé to determine the candidates that are qualified to interview.   In general, I believe that this procedure is fair.
- ❍ Strongly Agree (1)
- ❍ Agree (2)
- ❍ Neutral (3)
- ❍ Disagree (4)
- ❍ Strongly Disagree (5)

Q28 An applicant tailors their résumé to the specific job posting by adding keywords found in the description of the job regardless of if they match their current qualifications. The keywords that they add are found in the job description of the position that they are applying for. The applicant also reviews the company website to determine the mission and values of the organization and uses this in addition to the keywords described in the posting to help tailor their résumé to match the company and the position.

	Strongly Agree (1)	Agree (2)	Neutral (3)	Disagree (4)	Strongly Disagree (5)
I believe that this approach is fair. (1)	❍	❍	❍	❍	❍
I believe that this approach allows the company to find the most qualified applicant. (2)	❍	❍	❍	❍	❍

Q29 An applicant tailors their résumé to the specific job posting by adding some of the keywords found in the description of the job that matches their current qualifications. The applicant also reviews the company website to determine the mission and values of the organization and uses this in addition to the keywords described in the posting to help tailor their résumé to match the company and the position.

	Strongly Agree (1)	Agree (2)	Neutral (3)	Disagree (4)	Strongly Disagree (5)
I believe that this approach is fair. (1)	❍	❍	❍	❍	❍
I believe that this approach allows the company to find the most qualified applicant. (2)	❍	❍	❍	❍	❍

Q30 An applicant does not tailor their résumé to the specific job posting; the résumé they submit is a general résumé that includes a brief summary of their experience and educational background. The résumé that is submitted is standard, and is the same general résumé that they submit to all jobs that they apply for online.

	Strongly Agree (1)	Agree (2)	Neutral (3)	Disagree (4)	Strongly Disagree (5)
I believe that this approach is fair. (1)	○	○	○	○	○
I believe that this approach allows the company to find the most qualified applicant. (2)	○	○	○	○	○

Q49 The following section pertains to your attitudes towards specific statements. Please read each statement or question and respond using the scale provided.

Q31 Record your agreement for each statement below.

	Strongly Agree (1)	Agree (2)	Neutral (3)	Disagree (4)	Strongly Disagree (5)
People make better judgments than computers. (1)	○	○	○	○	○
Computers are not accurate. (2)	○	○	○	○	○
People can be biased. (3)	○	○	○	○	○
I would add keywords to my résumé to be noticed by a computer. (4)	○	○	○	○	○
It's acceptable to leave past jobs off my résumé. (5)	○	○	○	○	○
I think that adding false information to a résumé is ethical. (6)	○	○	○	○	○
I believe that a computer screening a résumé will find the most qualified applicant. (7)	○	○	○	○	○
I believe a person screening a résumé will find the most qualified applicant. (8)	○	○	○	○	○
In general, I believe that tailoring ones résumés is unethical. (9)	○	○	○	○	○

Q32 A lot of people tailor their résumés when applying for jobs.
○ Strongly Agree (1)
○ Agree (2)
○ Neutral (3)
○ Disagree (4)
○ Strongly Disagree (5)

Q33 It's fair to tailor my résumé when applying for a job because other people tailor their résumés.
- ❍ Strongly Agree (1)
- ❍ Agree (2)
- ❍ Neutral (3)
- ❍ Disagree (4)
- ❍ Strongly Disagree (5)

Q34 Please indicate the extent to which you do the following.

	Almost Always (1)	Most of the Time (2)	Sometimes (3)	Seldom (4)	Never (5)
To what extent do you tailor your résumé when applying for jobs? (1)	❍	❍	❍	❍	❍
To what extent do you embellish on your résumé when applying for jobs? (2)	❍	❍	❍	❍	❍

Q50 The following section pertains to how often you behave a certain way. Please read each statement and respond using the scale provided.

Q35 Respond to the following statements by thinking about "how often you behave this way"

	Never behave this way (1)	Seldom behave this way (2)	Sometimes behave this way (3)	Often behave this way (4)	Always behave this way (5)
Talk proudly about your experience or education. (1)	○	○	○	○	○
Make people aware of your talents or qualifications. (2)	○	○	○	○	○
Let others know that you are valuable to the organization or group. (3)	○	○	○	○	○
Make people aware of your accomplishments. (4)	○	○	○	○	○
Compliment your colleagues or classmates so they will see you as likable. (5)	○	○	○	○	○
Take an interest in your colleagues' or classmates' personal lives to show them that you are friendly. (6)	○	○	○	○	○
Praise your colleagues or classmates for their accomplishments so they will consider you a nice person. (7)	○	○	○	○	○

	Never behave this way (1)	Seldom behave this way (2)	Sometimes behave this way (3)	Often behave this way (4)	Always behave this way (5)
Do personal favors for your colleagues or classmates to show them that you are friendly. (8)	○	○	○	○	○
Stay at work or school late so people will know you are hard working. (9)	○	○	○	○	○
Try to appear busy, even at times when things are slower. (10)	○	○	○	○	○
Arrive at work or school early to look dedicated. (11)	○	○	○	○	○
Come to the office or school at night or on weekends to show that you are dedicated. (12)	○	○	○	○	○
Be intimidating with coworkers or classmates when it will help you get your job/work done. (13)	○	○	○	○	○
Let others know you can make things difficult for them if they push you too far. (14)	○	○	○	○	○

	Never behave this way (1)	Seldom behave this way (2)	Sometimes behave this way (3)	Often behave this way (4)	Always behave this way (5)
Deal forcefully with colleagues or classmates when they hamper your ability to get your job done. (15)	❍	❍	❍	❍	❍
Deal strongly or aggressively with coworkers or classmates who interfere in your business. (16)	❍	❍	❍	❍	❍
Use intimidation to get colleagues or classmates to behave appropriately. (17)	❍	❍	❍	❍	❍
Act like you know less than you do so people will help you out. (18)	❍	❍	❍	❍	❍
Try to gain assistance or sympathy from people by appearing needy in some areas. (19)	❍	❍	❍	❍	❍
Pretend not to understand something to gain someone's help. (20)	❍	❍	❍	❍	❍
Act like you need assistance so people will help you out. (21)	❍	❍	❍	❍	❍

	Never behave this way (1)	Seldom behave this way (2)	Sometimes behave this way (3)	Often behave this way (4)	Always behave this way (5)
Pretend to know less than you do so you can avoid an unpleasant assignment. (22)	❍	❍	❍	❍	❍

Q36 Which best describes you?
❍ Male (1)
❍ Female (2)

Q37 What is your ethnic background?
❍ Hispanic or Latino (1)
❍ White (Not Hispanic or Latino) (2)
❍ Black or African American (Not Hispanic or Latino) (3)
❍ Native Hawaiian or Other Pacific Islander (Not Hispanic or Latino) (4)
❍ Asian (Not Hispanic or Latino) (5)
❍ American Indian or Alaska Native (Not Hispanic or Latino) (6)
❍ Two or More Races (Not Hispanic or Latino) - All persons who identify with more than one of this five races. (7)

Q38 What is your age (in years)?

Q39 Year in school
❍ Freshman (1)
❍ Sophomore (2)
❍ Junior (3)
❍ Senior (4)
❍ Graduate Student (5)

Q40 Are you currently working?
❍ Yes (1)
❍ No (2)
If Yes Is Selected, Then Skip To Approximately how many hours do you...If No Is Selected, Then Skip To I am familiar with applying for jobs ...

Q41 Approximately how many hours do you work per week?
- ○ 0-5 (1)
- ○ 6-10 (2)
- ○ 11-15 (3)
- ○ 16-20 (4)
- ○ 21-25 (5)
- ○ 26-30 (6)
- ○ 31-35 (7)
- ○ 36-40 (8)
- ○ more than 40 hours (9)

Q42 I am familiar with applying for jobs online.
- ○ Not at all familiar (1)
- ○ Slightly familiar (2)
- ○ Somewhat familiar (3)
- ○ Moderately familiar (4)
- ○ Extremely familiar (5)

Q43 Have you applied for a job in the past two years?
- ○ Yes (1)
- ○ No (2)

If No Is Selected, Then Skip To Please indicate how likely you would ...

Q44 Please select the methods in which you've applied in the past two years. (check all that apply)
- ❑ By sending in my résumé by mail (1)
- ❑ By sending in my résumé by email (2)
- ❑ By applying on a company's website (3)
- ❑ By applying at an in-store kiosk (4)
- ❑ By applying in person (5)
- ❑ By applying on LinkedIn (6)
- ❑ By applying on a job search website (e.g., Monster.com) (7)
- ❑ By personally giving my résumé to someone at a professional networking event (8)
- ❑ Personal contact by friend/family member (9)
- ❑ Was contacted by a company to apply (10)
- ❑ Other (please specify below) (11) _____

Answer If Have you applied for a job in the past two years? Yes Is Selected

Q45 Please estimate how many jobs have you applied for in the past two years?

Q46 Please indicate how likely you would be to do the following:

	Very Likely (1)	Likely (2)	Undecided (3)	Unlikely (4)	Very Unlikely (5)
Apply to a job that uses online screening (1)	○	○	○	○	○
Tailor your résumé (e.g., add keywords) (2)	○	○	○	○	○

Q47 To get credit in the SONA System, you MUST reach the end of the survey. Please click to continue for course credit! Thank you for participating. Your response to this survey is greatly appreciated. If you should have any questions or concerns about this research study, please feel free to contact Jessica Stidham at jls2ge@mtmail.mtsu.edu, or Dr. Judith Van Hein at Judith.VanHein@mtsu.edu, or the MTSU Office of Compliance at (615) 494-8918.

Appendix C

Demographic Information

Demographic Information

Variable	*n*	%
Participant Pool		
SONA System	124	18.4
Course Credit	28	81.6
Total	152	100.0

Variable	*n*	%
Gender		
Male	65	44.5
Female	81	55.5
Total	146	100.0

Variable	*n*	%
Ethnicity		
Hispanic or Latino	5	3.4
White (not Hispanic or Latino)	90	61.6
Black or African American (not Hispanic or Latino)	28	19.2
Native Hawaiian or Other Pacific Islander (not Hispanic or Latino)	0	0.0
Asian (not Hispanic or Latino)	15	10.3
American Indian or Alaska Native (not Hispanic or Latino)	1	0.7
Two or More Races (not Hispanic or Latino)	1	4.8
Total	146	100.0

Variable	*n*	Range	Mean ± SD
Age	146	18 - 49	22.05 ± 5.574

Variable	*n*	%
Year in School		
Freshman	50	34.2
Sophomore	41	28.1
Junior	31	21.2
Senior	23	15.8
Graduate Student	1	0.7
Total	146	100.0

Variable	*n*	%
Work Status		
Yes	90	61.6
No	56	38.4
Total	146	100.0

Variable	*n*	%
Hours Worked		
0-5	2	2.2
6-10	12	13.3
11-15	10	11.1
16-20	11	12.2
21-25	19	21.1
26-30	13	14.4
31-35	10	11.1
36-40	11	12.2
More than 40 hours	2	2.2
Total	90	100.0

Variable	*n*	%
Familiar with Applying Online		
Extremely Familiar	34	23.3
Moderately Familiar	51	34.9
Somewhat Familiar	51	34.9
Slightly Familiar	20	13.7
Not at all Familiar	8	5.5
Total	146	100.0

Variable	*n*	%
Applied for a Job in the Past Two Years		
Yes	116	79.5
No	30	20.5
Total	146	100.0

Variable	Frequency	%
Methods of Applying		
By sending in my résumé by mail	6	3.9
By sending in my résumé by email	42	27.6
By applying on a company's website	97	63.8
By applying at an in-store kiosk	34	22.4
By applying in person	83	54.6
By applying on LinkedIn	4	2.6
By applying on a job search website (e.g., Monster.com)	50	32.9
By personally giving my résumé to someone at a professional networking event	16	10.5
Personal contact by friend/family member	46	30.3
Was contacted by a company to apply	14	9.2
Other	0	0.0
Total Participants Responding	152	100.0

Variable	*n*	Range	Mean ± SD
Number of Jobs Applied For	116	0 – 200	8.45 ± 19.778

Variable	n	%
Likely to Apply Online		
Very Likely	19	13.0
Likely	57	39.0
Undecided	51	34.9
Unlikely	15	10.3
Very Unlikely	4	2.7
Total	146	100.0

Variable	n	%
Likely to Tailor Résumé		
Very Likely	18	12.3
Likely	55	37.7
Undecided	34	23.3
Unlikely	27	18.5
Very Unlikely	12	8.2
Total	146	100.0

Appendix D
IRB Approval Letter

**MIDDLE
TENNESSEE**
STATE UNIVERSITY

January 23, 2014

Investigator(s): Jessica Stidham
Department: Psychology
Investigator(s) Email Address: jls2ge@mtmail.mtsu.edu

Protocol Title: "Applying Online: Applicant Perceptions of Online Résumé Submission"

Protocol Number: #14-192

Dear Investigator(s),

Your study has been designated to be exempt. The exemption is pursuant to 45 CFR 46.101(b)(2) Educational Tests, Surveys, Interviews, or Observations.

We will contact you annually on the status of your project. If it is completed, we will close it out of our system. You do not need to complete a progress report and you will not need to complete a final report. It is important to note that your study is approved for the life of the project and does not have an expiration date.

The following changes must be reported to the Office of Compliance before they are initiated:
- Adding new subject population
- Adding a new investigator
- Adding new procedures (e.g., new survey; new questions to your survey)
- A change in funding source
- Any change that makes the study no longer eligible for exemption.

The following changes do no need to be reported to the Office of Compliance:
- Editorial or administrative revisions to the consent or other study documents
- Increasing or decreasing the number of subjects from your proposed population.

If you encounter any serious unanticipated problems to participants, or if you have any questions as you conduct your research, please do not hesitate to contact us.

Sincerely,

Lauren K. Qualls
Compliance Office
Graduate Assistant to:
Kellie Hilker, PhD
Compliance@mtsu.edu