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Eastern Illinois University

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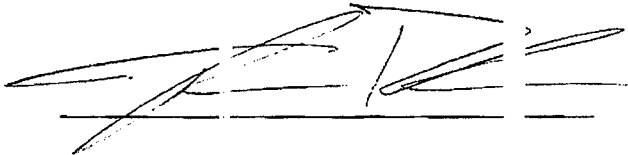# THESIS MAINTENANCE AND REPRODUCTION CERTIFICATE

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The Relationship between the Myers-Briggs Type Indicator and the Dispositional
Resistance to Change Scale

by

Thomas A. Rausch

Submitted in Partial Fulfillment of the Requirements for the Degree of
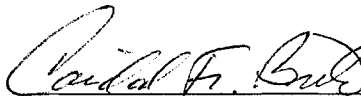
Master of Science

In the Graduate School, Eastern Illinois University
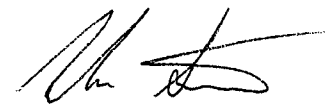Charleston, Illinois

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ABSTRACT

The purpose of this study was to contribute to a better understanding of relationship between resistance to change and personality preference types. A survey was developed and administered to graduate students in the School of Technology at Eastern Illinois University. A total of 33 students responded. The surveys compared levels of resistance to organizational change to Myers Briggs Type Indicator preference types on each indices of personality. Results of this study indicated that the level of resistance to change based upon personality preference types is not significant. Recommendations for practice and recommendations for further research are discussed.

ACKNOWLEDGEMENTS

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88   **Chapter I**

89   **Introduction**

90   In the current global economic market, businesses are searching for ways to stay

91competitive. This global economy is creating more external threats and opportunities for all

92organizations, spurring efforts at internal improvement to compete and survive (Kotter, 1995).

93These new threats and opportunities come in the form of new government regulations, increased

94competition, products, growth, technological advancements, increased international competition,

95and the changing demographics of American employees (Kotter, 1995). The American Society

96for Training and Development (ASTD), concerned with workplace learning and performance,

97has also documented the need for change, as facilitating change is more critical now than ever as

98organizations are affected by economic conditions (2009).

99   The response organizations take to the external demands of the new global economy is

100important to the competitiveness of the business. This goal of organizational change is to cope

101with a new and challenging market by introducing change (Kotter, 1995). Practical and common

102ways business copes with the market includes: differences in standard operating procedure, and

103improvement in efficiency, productivity, and service quality (ASTD, 2009). According to Porras

104& Robertson (1992) organizational change is "a set of behavioral science-based theories, values,

105strategies, and techniques aimed at the planned change of the organizational work setting for the

106purpose of enhancing individual development and improving organizational performance,

107through the alteration of organizational members' on-the-job behaviors" (p. 723).

108   Individuals and businesses alike have noticed the effect of organizational change on the

109success of the organization. According to The Harvard Business Review (1998), Lockheed-

110Martin, a major producer in the defense industry, has been very successful over the past decade

111due to implementation of organizational change. Specifically, the organization has boasted an

112annual "return of 29% over five years" (p.187). Much of this success has been attributed to

113embracing and implementing change. According to Lockheed-Martin, "The most important

114lesson became self-evident: There are only two types of companies – those that are changing and

115those that are going out of business" (The Harvard Business Review, 1998, p. 162).

116   While the reasons for change are diverse and problematic, organizations may not simply

117change and expect results. Leaders in any business venture must design, implement, and evaluate

118change to reinvent how the company operates.

119   Efficiency and productivity in identifying, facilitating, and managing change is

120paramount. Such leadership regarding change requires a deep understanding of the nature of

121change and how it will affect members of an organization as the entire group as a whole as well

122as the individual must be willing to change. When leaders take an active interest in how the idea

123of change is received by each individual employee, the success of change is dependant upon

124individual reactions (Herold, Fedor, Caldwell, & Liu, 2008). Individual discretion, how an

125employee feels, thinks, and behaves because of the change, may have strong influences from

126personality.

127   Personality may have an impact of levels of resistance to change. According to Oreg

128(2003) people differ in their inclinations toward change. Kotter (1995) believes that the most

129prominent factor in delivering change depends upon how people feel about the change. By

130focusing on the individual differences regarding the perception of mandated change, a fluid,

131conforming initiative toward employees may be more effective at overcoming resistance to

132organizational change.

133   The term "resistance" is a judgment or perception about an object or thing (Oreg, 2006).

134The judgment of a change is dependent upon three factors: affective, behavioral, and cognitive

135components (McGuire, 1985). The affective component describes how one feels about the

136change. Typical negative reactions to change would be classified as angry, anxious, and nervous

137(Oreg, 2006). The cognitive component of judgment in regard to organizational change describes

138what someone things about the change, such as "Is the change beneficial? Will it help me?"

139(Oreg, 2006). The behavioral aspect describes how the individual will react in relation to the

140organizational change, such as complaining about the change, or telling others why the change is

141beneficial (Oreg, 2006). Although the three methods to judge change are independent constructs,

142they most certainly influence each other. If an employee judges organizational change using

143cognition, it is likely to influence their behavior and emotions regarding change as well (Oreg).

144   An instrument to measure the resistance to change may cover many aspects of resistance.

145Some employees may be more resistant to organizational based upon their emotions, while

146others will resist change because of what they think about it. The differences between individuals

147in how change will affect them can be linked to differences in personality. However, this study

148will focus on the personality differences between participants that lead to a resistance to change

149disregarding situations and contexts.

150   Researchers have developed instruments to measure employee's resistance to change.

151Oreg (2003) formulated the Dispositional Resistance to Change Scale (RTC) "to account for the

152individual-difference component of resistance to change" (p. 680). The scale consists of

153seventeen Likert-scale items, which range from 1 (strongly agree) to 6 (strongly disagree) that

154indicate four change resisting factors: routine seeking, emotional reaction to imposed change,

155short-term focus, and cognitive rigidity (Oreg, 2003). Drawing on previous research, many

156constructs related to resistance to change were considered before four factors were chosen. These

157factors, (routine seeking, emotional reaction to change, cognitive rigidity, and short-term focus)

158represent the behavioral, affective, and emotional resistance to change. The fist construct

159measured by the instrument is levels of routine seeking. Pertaining to the behavioral resistance to

160change, this construct was incorporated into the instrument to measure how individuals will react

161to organizational change. Routine seeking individuals have low levels of sensation seeking,

162desiring stimulation, novelty, and have the reluctance to give up old habits (Oreg, 2003). In

163relationship to organizational change, individuals who score high in routine seeking are likely to

164have an aversion to innovation and new sensations (Oreg, 2003). The second construct measures

165an individual's reaction to imposed change. Known as the emotional reaction factor, this

166construct measures the amount of stress and uneasiness the individual experiences to imposed

167change and contributes to the affective resistance to overall change (Oreg, 2003). This construct

168has been cited as having the strongest correlation to personality. In one study that measured

169employee's reactions to a mandated office move, employees' emotional responses had the

170highest impact on overall levels of the resistance to change (Oreg, 2006). The third construct that

171describes resistance to organizational change is short term focus. Short term focus in relation to

172organizational change is defined as zeroing in on the immediate adverse effects and initial

173inconvenience of the change instead of potential long-term benefits. Short-term focus also

174encompasses an irrational component of regarding change as participants who show high levels

175of short term focus resist organizational changes even when an individual is aware of potential

176change benefits. Participant's who score high in short term focus may also score high in

177intolerance for the adjustment involved in change and reluctance to lose control (Oreg, 2003).

178The final construct measured by the RTC is cognitive rigidity. This factor measures the ease and

179frequency with which individual change their minds (Oreg). Cognitive rigidity has been

180described synonymously to the trait of dogmatism. In other words, close mindedness and rigid

181thoughts and judgments (dogmatism) describes those who score highly in cognitive rigidity. This

182makes employees less willing and able to adjust to new situations in the context of organizational

183change (Oreg, 2006).

184   People that are high on the dispositional resistance to change scale, which is

185conceptualized as a stable personality trait, are less likely to voluntarily incorporate changes into

186their lives; when change is imposed upon them they are more likely to experience negative

187emotional reactions, such as anxiety, anger and fear (Oreg, 2006).

188   Since its development, the RTC has been validated among a large population over several

189studies. The results of seven different studies established the four facet factors noted above

190(Oreg, 2006). Reliability scores for the behavioral, affective, and cognitive components were .77,

191.78, and .86 (Oreg, 2006). The scale's reliability coefficient (Cronbach's alpha) has been

192identified as high as .92 (Oreg, 2003). Although Oreg's RTC scale directly measures resistance

193to change due to personality constructs, other constructs may have a relationship to an overall

194level of resistance to change. Other personality constructs have found that employees' openness

195towards organizational change can be predicted by traits such as self-esteem (Wanberg & Banas,

1962000), risk tolerance (Judge et al., 1999), need for achievement (Miller, Johnson, & Grau, 1994),

197and locus of control (Lau & Woodman, 1995). Similarly, other factors, such as self discipline, an

198orientation toward creative achievement, and a lack of defensive rigidity were linked to

199adaptability to change (Mumford, Baughman, Threlfall, &Uhlman, 1993).

200   Other instruments that measure personality constructs may also have a relationship to

201organizational change. One such instrument, the Myers-Briggs Type Indicator (MBTI), uses

202preference types to indicate personality constructs. The MBTI, developed by Katherine Briggs

203and Isabella Myers, drew concepts from the noted psychologist, Carl Jung. In 1921, Jung

204published "Psychological Types," which introduced the concepts of (E) extroversion v. (I)

205introversion, (S) sensing v. (N) intuition, and (T) thinking v. (F) feeling. According to Keirsey

206and Bates (1978), Jung believed:

207   People are different in fundamental ways, even though they

208   all have the same multitude of instincts (archtypes) to drive

209   from within. One instinct is no more important than the other.

210   What is important is our preference of how we 'function'. One

211   preference for a given function is characteristic, and so we may

212   be 'typed' by this preference (p.3).

213   Jung theorized that human behavior was predictable and therefore classifiable (Denham,

2142002). A fourth preference type, typing an individual as either "(J) judging" or "(P) perceiving"

215was added by Myers and Briggs to indicate personality based preferences for life structure

216(Center for the Applications of Psychological Type, 2010).

217   The MBTI identifies personal preference types in 4 different indices of personality, each

218having 2 measurements of preferences. A preference type is a habitual choice between rival

219alternatives of established constructs of personality (Center for Applications of Psychological

220Type, 2010). The instrument measures personality preferences concerning: (1) the direction of

221energy flow, (2) perceptions of the world, (3) decision-making, and (4) life structure.

222   The first construct, the direction of energy flow, describes the direction to which energy

223and attention is drawn (Bayne, 1997) and types an individual as either extroverted (E) or

224introverted (I). Introverts (I) are characterized by those who are more likely to draw their energy

225from their thoughts, ideas, and emotions, prefer written communication, and comprise of 25

226percent of the population (Keirsey, 1978). Extroverts (E) are described as those who direct their

227energy and attention outward on people and things, often being energized by interaction with

228them. Extroverts prefer spoken communication and make up 75 percent of the population.

229 The second preference of the MBTI measures the participant's perception of the world

230and types individuals as either sensors (S) or intuitives (N). Sensors prefer to focus on the facts

231and practical matters of a situation. Other research has indicated that sensors prefer to apply

232skills already perfected, notice actualities in the world, and take in information through the 5

233senses (Keirsey, 1978). Intuitives (N), on the other hand, perceive the world "using their sixth

234sense" (Keirsey, p.23) and by noticing possibilities. Other characteristics of intuitives include:

235the enjoyment of learning something new, doing things with an innovative bent, and changing

236the status quo (Keirsey). Nearly 75 percent of the world prefers sensing, with the other 25

237percent prefers intuition.

238 The third preference identified in the MBTI measures the way participants make

239decisions. Thinkers (T), enjoy making decisions logically, impersonally, and objectively. They

240are likely to use logical analysis to reach their conclusions and tend to be firm minded regarding

241their beliefs. Feelers (F) enjoy making decisions using values. They are likely to decide

242subjectively based upon their personal feelings in the moment. Feelers also enjoy working in

243harmony with people, and taking care of other's needs (Keirsey, 1978). The population

244preference is split according to gender; 60 percent of males prefer thinking while 60 percent of

245females prefer feeling.

246 Finally, the fourth preference identified in the MBTI is the way participants structure

247their life. Participants who prefer judging (J) like to live their life through plans, organization,

248and structure. They enjoy making plans and having decisions settled. Perceivers (P) live their life

249through spontaneity. They enjoy keeping their options open and like leaving decisions open. The

250population is split 50-50 when selecting a preference (Keirsey, 1978).

251   When identifying personality constructs with regard to preference type, an individual's

252type is either one indices of the construct or its opposite (For example: E or I), although each

253individual has both extroverted and introverted qualities. By "typing" people, the MBTI

254identifies which end of the spectrum is dominant, as two individuals may be typed as extroverts,

255they may vary in the strength of their preferred direction. Practically speaking, a strong extrovert

256would feel mort comfortable drawing energy and focusing on people, places, and things and less

257comfortable focusing on ideas and thoughts than a weaker extrovert.

258   The MBTI is considered a measurement of characteristic adaptation according to basic

259tendencies (Bayne, 1997). It uses the previous experiences of the individual to decipher and

260measure unseen personality constructs. In other words, the MBTI uses real life characteristic

261adaptation scenarios to reveal basic personality tendencies.

262   The instrument has shown strong validity and reliability. Provost (1990) stated "The

263MBTI is one of the most valid and reliable tools for personality assessment" (p. 15). Bayne

264(1997) has supported the reliability of the instrument by stating, "On average, it is over .80,

265which is generally regarded as good for a personality measure" (p.14).

266   **Purpose of the Study**

267   The purpose of this study was to contribute to a better understanding of resistance to

268organizational change. More specifically, the purpose of this is study was to gain a better

269understanding of resistance to change in relation to personality preference types. Due to the

270popularity of the MBTI, researchers should investigate potential emotions, thoughts, and

271behaviors in relation to organizational change based upon the constructs measured by the MBTI.

272Individual differences in personality may be used to obtain a more valid understanding of what

273resistance to change is really about.

274   **Research Questions**

275   The research design, observations, data collection and analysis for this study were guided

276by four research questions:

277   1. Is there a difference in the level of resistance to organizational change between

278   introverts and extroverts?

279   2. Is there a difference in the level of resistance to organizational change between

280   sensors and intuitives?

281   3. Is there a difference in the level of resistance to organizational change between

282   thinkers and feelers?

283   4. Is there a difference in the level of resistance to organizational change between

284   judgers and perceivers?

285   **Limitations/Delimitations of the Study**

286Factors affecting the generalizability of the results include:

287   1. The results of the proposed research may differ from the overall population of

288   graduate students.

289   2. The study only collected data from graduate students enrolled in the School of

290   Technology at Eastern Illinois University. Conclusions may not be generalized

291   beyond this scope.

292   3. The study only measured some personality preferences.

293   4. The study only measured some constructs that resist change.

294   5. The responses to the survey were based on self-assessment of both personality

295   preference types and levels resisting organizational change. For the purpose of

296   this study, it will be assumed that participants will answer questions honestly.

297   **Significance of the Study**

298   The identification, application, and measurement of organizational change are vital parts

299of any organizational development initiative. While many factors may contribute to the

300successful implementation and adaptation of change in the workplace, previous research has

301failed to indicate how personality preferences types play a role in the resistance to change.

302   The Myers-Briggs Type Indicator has been widely used by organizations to improve

303performance by identifying employee's personality preferences (Kuipers, et al., 2009). This

304interest has spurred research into how employees differ from one another in their resistance to

305change in the workplace. Although many factors influencing attitudes toward change exist, this

306study will seek to identify an area that previous research has overlooked. Previous research has

307failed to indicate how resistance to change differs between employees based upon their

308personality preferences according to the MBTI.

309   This study contributed knowledge to professionals by establishing if personality factors

310are related to resistance to change. The result of this study may spur further research into how

311personality preference types contribute to an overall resistance to change level if a relationship is

312found. Furthermore, this study may convey the importance of personality preference types in

313relationship to organizational change. The relationship allows each preference type to be more or

314less likely to accept, adopt, and support the implementation of change. The combination of the

315preference types, indicated by the MBTI, may suggest that some personality types are strongly

316related to resistance to change while others are not related to resistance to change.

317 **Definition of Terms**

318   Myers-Briggs Type Indicator: The Myers-Briggs Type Indicator (MBTI) assessment is a

319psychometric questionnaire designed to measure psychological preferences in how people

320perceive the world and make decisions (Myers and Myers, 1980).

321   Preference type: a preference for how we 'function'; Either (E) extroversion or (I)

322introversion, (S) sensing or (N) intuition, (T) thinking or (F) feeling, and (J) judging or (P)

323perceiving based upon our personality type (Jung, 1921); (Keirsey & Bates, 1978).

324   Resistance to change: resistance is a tridimensional (negative) attitude towards change,

325which includes affective, behavioral, and cognitive components (Oreg, 2006).

326   Dispositional Resistance to Change Scale: The Resistance to Change (RTC) trait consists

327of four related, yet distinct, dimensions: routine seeking, emotional reaction to change, short-

328term focus, and cognitive rigidity, where each dimension reflects a different source of resistance

329(Oreg, 2006).

330   Extroversion: A psychological construct that determines a person prefers to focus attention

331and energy outward on people and things (Keirsey, 1978).

332   Introversion: A psychological construct that determines a person prefers to focus attention

333and energy inward on ideas and images (Keirsey, 1978).

334   Sensing: A psychological construct that determines a person prefers to gather information

335using the five senses (Keirsey, 1978).

336   Intuition: A psychological construct that determines a person prefers to gather information

337using patterns and possibilities (Keirsey, 1978).

338   Thinking: A psychological construct that determines a person prefers to make decisions

339using objective principles and impersonal facts (Keirsey, 1978).

340   Feeling; A psychological construct that determines a person prefers to make decisions

341using personal concerns and the people involved (Keirsey, 1978).

342   Judging: A psychological construct that determines a person prefers to live their outer life

343with matters structured and decided (Keirsey, 1978).

344   Perceiving: A psychological construct that determines a person prefers live their outer life

345with matters undecided and adaptable (Keirsey, 1978).

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363   **Chapter II**

364   **Review of Literature**

365   **Introduction**

366   The purpose of this study was to determine if a relationship exists between personality

367preferences as indicated by the Myers-Briggs Type Indicator (MBTI) and resistance to

368organizational change according to the Dispositional Resistance to Change Scale (RTC). This

369literature review will comprise of four areas: a) Why organizations have a need for change in

370their work environment, b) Why individuals are resistant to change, c) How attitudes resisting

371change are identified, and d) How personality factors contribute to a resistance to change.

372   **Organizational Change Defined**

373   From the perspective of organizational development, change is "a set of behavioral

374science-based theories, values, strategies, and techniques aimed at the planned change of the

375organizational work setting for the purpose of enhancing individual development and improving

376organizational performance, through the alteration of organizational members on-the-job

377behaviors" (Porras & Robertson, 1992, p. 723). Kotter (1995) stated that the goal of

378organizational change is to "make fundamental changes in how business is conducted in order to

379help cope with a new, more challenging market" (p.2). Kotter (1995) further noted that when

380organizations attempt to implement organizational change, there are obstacles that prevent

381accomplishment of the change initiative.

382   According to Dent and Goldberg (1999), the origin of the term "resistance to change" is

383credited to Kurt Lewin who stated that resistance to change was "based on the person as a

384complex energy field in which all behavior could be conceived of as a change in some state of a

385field" (Marrow, 1969, p.30). Lewin also noted three phases of successful change: "First, an

386'unfreezing,' or disruption of the initial steady state, then a period of disturbance with trial of

387various adaptive possibilities, and finally a period of consolidation of change with a 'refreezing'

388in a new steady state" (Marrow, 1972, p. 231-232). Lewin viewed the status quo as a balance of

389factors influencing acceptance of change and resisting change. Either a weakening of the

390resistance to change or an overpowering event of the pushing forces lead to the 'unfreezing' that

391initiates the change (Weisbord, 1987). Lewin's model defined resistance to change, but further

392research was needed to determine what variables impact the resistant or acceptance of change.

393 Coch and French continued the work on the resistance to change concept by researching

394operations at the Harwood Manufacturing Company in Virginia (Dent & Goldberg, 1999). Coch

395and French (1948) sought to determine "(1) Why do people resist change so strongly? (2) What

396can be done to overcome this resistance?" (p. 512). The study concluded that groups who

397participated in the change design had a much lower resistance to change than those who did not

398(Coch & French, 1948).

399Dent and Goldberg (1999) noted:

400 By 1962, 'resistance to change' had taken on the meaning

401 that is widely understood by our students and organizational

402 clients today and continues to be promulgated in textbooks.

403 The meaning is a psychological concept in which resistance

404 is cited within the individual, and the manager's task is to overcome

405 that resistance. (p. 34)

406 Oreg (2006) further asserted, "resistance is a tridimensional (negative) attitude towards

407change, which includes affective, behavioral, and cognitive components" (p.76). The three of

408these components reflect the three different ways in which an individual evaluate an object or an

409event (p.76). According to Oreg (2006):

410   The affective component regards how one feels about the change (e.g., angry, anxious);

411   the cognitive component involves what one thinks about the change (e.g., Is it necessary?

412   Will it be beneficial?); and the behavioral component involves actions or intention to act

413   in response to the change (e.g., complaining about the change, trying to convince others

414   that the change is bad) (p.76).

415   Under this definition of resistance, the quality or impact change has is dependant upon

416the individual. While certain variables have been researched and are expected to have generally

417positive or negative consequences for change perceptions, it is the ultimately up to the individual

418to regard the quality of the change initiative (Oreg, 2003; Dent and Goldberg, 1999).

419   Oreg's trimentional view of resistance defined three separate areas of resistance that

420influence each other (Oreg, 2006). While all three play a part in change resistance, the level to

421which they influence the individual are in question. According to Oreg (2006) "Some variables

422may have their primary influence on how people feel about a change, others may have more

423impact on what they do, and yet others on what they think about it" (p.76). Depending upon

424individual discretion, specifically the affective, behavioral, and cognitive aspects to change, an

425individual will be more or less resistant to change. The definition of organizational change,

426formed in the early 1950's, has changed to reflect its operational use within an organization in

427today's business.

428**Benefits to embracing change**

429   If recognized and implemented correctly, change can spur great improvement within an

430organization; however, if change is not used to avoid external threats or take advantage of

431opportunities, the consequences may be catastrophic to the survival of the organization. Garland

432(2007) cited Eastman Kodak as an example of failing to embrace change. Eastman Kodak was

433once a world leader in photography and imaging that made billions from its innovation with

434chemical film. Although Kodak had demonstrated itself as a profitable business venture, the

435organization failed to change with the times. Kodak's competitive advantage with chemical film

436was soon outdated by the use of computer chips, memory, and software. As more and more

437imaging products became digital, Kodak continued to lose revenue and profits (Garland, 2007).

438Because Kodak failed to realize the importance of organizational change and its role within the

439market, the business failed.

440   Organizational change is a concept that all organizations experience as it encompasses

441any difference in processes and outputs within an organization. According to Kotter (1996),

442major change efforts have been credited with helping organizations adjust to the external

443environment, improve competitive standing in relation to competitors, and take advantage of

444future opportunities in the market. Efforts such as: "total quality management, reengineering,

445right sizing, restructuring, cultural change, and turnarounds all seek to cope with a new,

446challenging market" (Harvard Business review, 1998, p. 1). However, change initiatives may fail

447in reaching their target goal.

448   Organizational change may also be spurred by anticipating future changes. Businesses are

449able to turn uncertainty to opportunity by understanding and analyzing how changes in the

450economy, politics, and society will have an impact on their business (Garland, 2007). Nokia,

451known today for its cellular devices, is much different than when it started in 1865. Concerning

452the future and its relationship to change, Garland (2007) wrote:

453   The company had expanded into cable and rubber back in

454   the 1920s and further expanded into electronics in the 1950s.

455   In fact, Nokia began producing mobile phones in the 1970's

456   and 1980's....Despite potential bankruptcy, Nokia became a

457   world-beating business whose revenue is a big as the entire

458   government of Finland. Nokia accepted the transformation and

459   won (pp. 6-7).

460**The effect of resistance to change**

461   While most organizations view change as important and necessary, the resistance of

462employees may hinder efforts at organizational change (Kotter, 1995). According to Lawrence

463(1954):

464   "One of the most baffling and recalcitrant of the problems which business executives

465   face is employee resistance to change. Such resistance may take a number of forms

466   — persistent reduction in output, increase in the number of "quits" and requests for

467   transfer, 'chronie' quarrels, sullen hostility, wildcat or slowdown strikes, and, of

468   course, the expression of a lot of pseudo logical reasons why the change will not

469   work" (p.49).

470   One study by Coch and French (1949) examined the effect of resistance to change by

471creating two groups; one group was able to "participate" in change and the other group had "no

472participation." Coch and French (1949) described the behavior of the "no participation" group

473after the change was implemented:

474   "Resistance occurred immediately after the change occurred. Marked expressions of

475   aggression against management occurred, such as conflict with the methods

476   engineer...hostility toward the supervisor, deliberate restriction of production, and lack of

477   cooperation with the supervisor. There were 17% quits within the first four days" (p. 512).

478Identifying barriers to change

479   According to Oreg (2006) "resistance is a tridimensional (negative) attitude towards

480change, which includes affective, behavioral, and cognitive components" (p.76). Though many

481organizations recognize the value of change, many different reasons for resisting change efforts

482exist. As change is an important tool for business to use in a variety of situations, barriers

483commonly exist that hinder initiatives within a business. Early experts in the field of

484organizational change used a technique to visualize the balance of resisting and driving forces.

	Present state	Desired position
Pushing/ driving forces		**Pulling/ restraining forces**

forces for change

driver 1 →
driver 2 →

restrainer 1 ←
restrainer 2 ←
←
←
←

forces for status quo
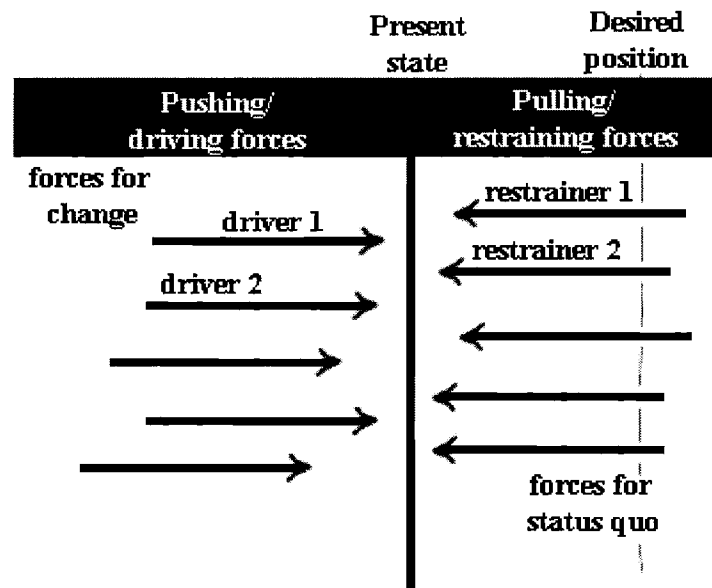
485

486*Figure 2.1 Lewin's Force Field Analysis*
487From: Lewin, K. (1951). Field theory in social science. New York: Harper.
488
489   Lewin (1951) is credited with coining the term "force field analysis." A force field

490analysis (see Figure 2.1) is a mapping exercise that visualizes an organizations resistance to

491change (Harwood & Humbly, 2008). Aquila (2004) wrote, "It is a management tool for

492analyzing the opposing forces involved in change or in team-building efforts. It can be used at

493any level, individual, personal, team, organizational, to indentify the forces that may work

494against change initiatives" (p.8). The force field analysis is a dynamic rather than static social

495system (Bar-Gal & Schmid, 1992). The stability in a social system is due to the balancing of

496driving forces compared to resisting forces and organizations often utilize the force-field analysis

497to identify opposing forces (Bar-Gal & Schmid; Lewin 1951; Aquila, 2004). "Most simply put, a

498force-field analysis enables the practitioner to organize information in terms of its relevance for

499change, incorporating diverse classes of data and individual, group, and organizational levels of

500analysis" (Bar-Gal & Schmid, 1992, p.18). Potential sources of resistance lay both within the

501individual as well as in the individual's environment (Lewin).

502   While the RTC has established the plausibility of individual discretion as a factor towards

503resistance to change, the environment also plays a role in resistance to organizational change.

504According to Kotter and Heskett (1992), the introduction of change on-the-job depends heavily

505on the work environment that supports the application of new skills. Environmental factors, such

506as the allocation of power, have been suggested as a possible determent to the acceptance of

507change (Buhl, 1947; Tichy, 1983; Zaltman & Duncan, 1977). Influential roles in the organization

508and restructuring of control over people and resources can be altered as a result of change. Like

509power, status and prestige is also subject to alteration because some positions are more desirable

510than others (Oreg, 2006). According to Tichy (1983), organization members negatively evaluate

511change because of the political ramifications of organizational change. "As the threat to power

512and prestige increases, so will employees' cognitive evaluation of the change become more

513negative" (Oreg, 2006, p.79).

514   Job security has also been cited as an outcome to change that may spark resistance in

515employees (McMurry, 1947). If employees determine that organizational change could threaten

516their job status, they may resist the outcome of change (McMurry, 1947). The resistance to

517change based upon threat to job security is strongly influenced by emotional factors (McMurry,

5181947; Burke & Greenglass, 2001).

519   As changes take place within the organization, the intrinsic rewards employees receive

520from their job may also change. Organizational changes often change tasks and redefine job

521responsibilities (Tichy, 1983). Envisioning an organizational change initiative that creates the

522expectation that the new job will be less rewarding would lead to negative evaluations of the

523change (Tichy, 1983). According to Ryan and Deci (2000), an individual's ability to satisfy

524intrinsic needs greatly improves their well-being.

525   In addition to resistance to the projected outcome of the change, some employees may

526resist the methods in which change is implemented. Munduate and Dorado (1998) learned that

527supervisors who were able to motivate their employees and build trust were the best at avoiding

528attitudes that resist change.

529   Information can also become a factor in how employees view the process of change. The

530amount of information and the quality of information can influence how employees will react to

531change (Kotter & Schlesinger, 1979). Information, such as the reasons for change and the input

532of the employees, has been linked to circumventing resistance to organizational change (Kotter

533& Schlesinger, 1979). Other studies have seemingly supported this notion. Specifically,

534Wanberg and Banas (2000) has shown that directly providing detailed information about a

535change has been shown to influence attitudes concerning change.

536   Other environmental factors, such as social influences in the workplace, have been shown

537to contribute or circumvent resistance to change. Social network theory argues that the formation

538of attitudes of employees is influenced by reference points (Erikson, 1988). This means that the

539social system of attitudes of other employees, such as supervisors and colleagues, influence the

540resistance or acceptance of change by the individual (Brown & Quarter, 1994). Therefore, the

541factors involving the process through which change is implemented should be particularly

542meaningful with respect to employees' behavioral responses (Oreg, 2006).

543   The role of human psychology may also play a role in the formation of resistance to

544change. While full consciousness can be thought of as a stressful event, consciousness can also

545create unwanted perceptions of the self. Freud (1923) coined the term ego, which is the

546conscious identity of us as a person. The threat to the ego, or the identity of the self, can be

547realized in the form of change. If a person is asked to perform a new task, the person as evidence

548of identity may view the process and outcomes of that task. The person risks identifying feelings

549of shame or disappointment (Diamond, 1986). The tendency to perceive situations as dangerous

550and threatening is known as trait anxiety (Lufi, Okasha, & Cohen, 2004).

551   Diamond (1986) has cited psychological factors that contribute to resistance to change.

552According to Diamond (1986), "If the interventionist's effort is not to be in vain, he must

553consider the extent to which his 'theory of action' constructively confronts psychological

554resistances to change inherent in all of us" (p. 543). Some of these psychological resistances,

555such as defensive and adaptive tendencies, may protect the status quo on the basis of avoiding

556change (Diamond, 1986). This is an important aspect of development; "resistance to change is

557crucial to the construction of defensive techniques for avoiding anxiety and maintaining

558security" (Diamond, p. 588). "Psychological resistance to change and learning will generally

559emerge in organization participants during the course of any intervention effort, regardless of the

560client's espoused level of commitment" (Diamond, p. 544). The problem of resistance to change

561may be spurred by the attachment of one's idea of their self. For an individual force-field

562analysis, the effect of defensive techniques on resistance to change is possible and likely

563prominent.

564   Under change management applications, trainees may experience this change as a

565threatening event that challenges the idea of themselves and personal ego (Diamond, 1986).

566While participants may feel anxiety when confronted with change, personal preferences in

567regards to personality may diminish the strength of negative feelings.

568   Any attempt at change may be subconsciously viewed by the participant as a potential

569threat to the idea of self, formed by the mind (Diamond, 1986). If a participant is unable to

570change into his or her job responsibilities, he/she may shut down the initiative to adapt

571(Diamond, 1986).

572   When the ego becomes aware unwanted self definitions, it uses defense mechanisms to

573avoid unwanted feelings (Huffman, 2007). Stratton and Hayes (1999) defined a defense

574mechanism as "a strategy which protects the ego or self-concept from real or imaginary threat"

575(p. 72). A defense mechanism may take many forms, including repression, denial,

576rationalization, intellectualization, projection, and regression (Huffman). According to Statton

577and Hayes (1999), everyone avoids unwanted information about themselves.

578   While previous research has indicated that environmental and psychological factors have

579an affect on resistance to change, it does not account for personality based discretion in

580relationship to change.

581**Why individuals regard change differently**

582   According to Kotter (1995) individuals are not resistant to change itself, rather they are

583resistant to an obstacle in the organization's structure. For example, Kotter writes people can be

584resistant to a "performance- appraisal system [that] makes people choose between the new vision

585and their own self-interest" (p.64). While the same change initiatives may effects many different

586personality types within an organization, individuals will regard change differently based upon

587their personality.

588   One study by Overbay, Patterson, and Grable (2009) examined the relationship between

589learning styles, resistance to change, and the effect of teacher retention. A 3-year infusion of

590technology was implemented into the instructional methods of the faculty members. The study

591revealed that the learning styles according to the MBTI as likely to resist change were ST and

592SF. Furthermore, "teachers with the ST learning style were also three times more likely to leave

593their schools, compared to teachers with other learning style preferences" (p. 356). By the end of

594the second year of technology integration, "21.5% of the individuals surveyed left the school"

595(Overbay, Patterson, & Grable, 2009, p. 363). 40.5% of teachers who's learning style was

596identified as ST left by year two (p.363). This study illustrates the effect of personality on

597technological change, which is under the umbrella of organizational change.

598   Differences between individuals in their overall levels of resistance to change may be

599influenced by the culture of their nation state. Research has indicated that cultures differ in their

600resistance to change. Hofstede (2001) distinguishes cultures according to five dimensions: power

601distance, individualism/collectivism, masculinity/femininity, uncertainty avoidance, and

602long/short-term orientation. The model provides a scale from 0 to 100 to establish a relative

603comparison between countries. One measure in particular, uncertainty avoidance, may be used to

604predict the behavior of a citizen of a particular country. Uncertainty avoidance is "the extent to

605which people feel threatened by uncertainty and ambiguity and try to avoid these situations"

606(p.89). In cultures of strong uncertainty avoidance, there is a need for rules and formality to

607structure life. This translates into the search for truth and a belief in experts. People of high

608uncertainty avoidance are less open to change and innovation than people of low uncertainty

609avoidance cultures.

610Identifying Attitudes Resisting Change

611　　While the introduction of change may cause some level of anxiety for all employees,

612individual characteristics of personality may be less or more accepting of change. According to

613Sverdlik and Oreg (2009), there appears to be a weak relationship between personal values and

614reaction to change. Furthermore, analysis by Miller (2009) indicated no statistically significant

615differences were found, leading to the conclusion that no personality type had a statistically

616significant pattern of distribution relating to a stronger or weaker relationship to the idea of

617change. This report is disputed by others studies. Wanberg & Banas (2000) found that

618employee's openness toward organizational change can be predicted by traits such as self

619esteem.

620　　What causes employees attitudes toward change to be negative? Some research has

621indicated that employees are not necessarily resistant to change, but is rather defined as a

622"personal immunity to change" (Kegan & Lahey, 1991, p. 85). Called the "competing

623commitment," attitudes of the employee may be secretly hindering the efforts of the organization

624to introduce new knowledge and skills (Kegan & Lahey, 1991, p. 85). The personality of the

625employee may be identified as a competing commitment; the initiative of the business to

626introduce change may be met with resistance (Kegan & Lahey, 1991). According to Kegan and

627Lahey, "People rarely question their big assumptions because, quite simply, people accept them

628as reality" (p.88). Attitudes and assumptions concerning change may be chiefly due to based

629personality characteristics.

630Identifying Personality

631   As previously noted, personality may affect "motives, purposes, aims, values, needs

632drives, impulses and urges" (Keirsey & Bates, 1978, p.2). According to Keirsey and Bates

633(1978), these characteristics may not, and should not be changed:

634   To sculpt the other onto our own likeness fails before it begins. People

635   can't change form no matter how much and in what manner we require

636   them to. Form is inherent, ingrained, indelible...Ask a person to change

637   form-think or want differently-and you ask the impossible, for it is the

638   thinking and wanting that is required to change the thinking and wanting.

639   (p.2)

640Just as systematic designs to implement change consider environmental and psychological

641factors, personality is a variable that should be considered as well. Some systematic designs to

642implement change seek to cope with the personality differences of employees to circumvent

643resistance to change. Kotter (1995) has outlined an eight-step process to implementing change to

644overcome resistance. Included in the formulating of the process is the recognition of individual

645subjectivity in regard to the reception of change. Step 4: Communicating the change vision

646describes the techniques to getting employee buy-in:

647   "The real power of a vision is unleashed only when most of those

648   involved in an enterprise or activity have a common understanding

649   of its goals and direction. That shared sense of desirable future can

650   help motivate and coordinate the kinds of actions that create

651   transformations" (Kotter, 1996, p. 85).

652A "shared sense of desirable future" is the crossroads between the personal value system of each

653employee and the solution that change hopes to implement.

654Measuring Resistance to Change

655   Oreg (2003) formulated the Dispositional Resistance to Change Scale (RTC) "designed

656to tab an individual's tendency to resist or avoid making changes, to devalue change generally,

657and to find change diversive across contexts and types of change" (p. 680). The scale was

658developed to "view resistance as a subjective and complex, tridimensional, construct" (Oreg,

6592006, p. 74). According to Oreg (2006),

660   "Oreg's 2003 studies have established the scale's convergent, discriminant, and

661   predictive validities, as well as its internal consistency and its test-retest reliabilities.

662   Moreover, the scale has been shown to predict specific change related behaviors above

663   and beyond other related personality characteristics, such as tolerance for ambiguity, risk-

664   aversion, or sensation seeking" (p.77).

665   The scale consists of sixteen items that indicate four factors: routine seeking, emotional

666reaction to imposed change, short-term focus, and cognitive rigidity (Oreg, 2003, p. 683). These

667factors represent the behavioral, affective, and emotional resistance to change. Since its

668development, the RTC has been validated among a large population over several studies. The

669results of seven different studies established the four facet factors noted above (Oreg, 2006).

670Reliability scores for the behavioral, affective, and cognitive components were .77, .78, and .86

671(Oreg, 2006). The findings of the study lead Oreg et al., (2006) to conclude:

672   Dispositional resistance to change predisposes some people to

673   show an adverse reaction to a change even if the change is docile

674   and its context is relatively welcoming. Such people find comfort

675   in routines, are less flexible cognitively, and find it more difficult

676   to set aside the short-term inconveniences of change. Not only do

677   they react more negatively, than others to harmful changes, but they

678   also resist changes that may turn out to be beneficial. Knowledge of

679   who these people are is important for organizational change management

680   and for career counseling (p. 943).

681 Identifying personality constructs

682   As a potential source of resistance to change, the personality of employees receiving

683organizational change must be taken into consideration (Kotter, 1995). The most accurate way to

684measure personality is widely debated and hardly universally accepted. However, according to

685Kuipers, Higgs, Tolkacheva, and Witte, (2009), the "Myers-Briggs Type Indicator (MBTI) is one

686of the most commonly used personality assessments because of the content and construct

687validities, its strong reliability, and consequently, its predictive validity, many organizations turn

688to the MBTI to measure personality" (p.2). This interest has spurred continual research

689concerning how personality preferences correlate with specific functions of the job. Because

690individuals have different personalities, each may regard the introduction of change differently

691(Hirsch & Kummerow, 1989). The MBTI is an instrument that identifies personal preferences in

6924 different indices of personality. Each indie has 2 possible preference types. The MBTI

693measures learning style, which can be thought of as "a person's preferred approach to

694information processing, idea formation, and decision making" (Kalsbeek, 1989, p. 1-2).

695   The first measure of personality identifies the energy flow of the participant. Introverts (I)

696are characterized by drawing their energy from their thoughts, ideas, and emotions. They prefer

697written communication and comprise of 25 percent of the population (Keirsey, 1978). Extroverts

698(E) are described as those who direct their energy outward. Their focus is on things, events, and

699people, often being energized by interaction with them. Extraverts prefer spoken communication

700and make up 75 percent of the population.

701   The second preference of the MBTI measures the participant's perception of the world.

702Sensors (S) prefer to focus on the facts and practical matters of a situation. Other research has

703indicated that sensors prefer to apply skills already perfected, actualities in the world, and prefer

704to notice information through the 5 senses (Keirsey, 1978). Intuitives (N), on the other hand,

705perceive the world "using their sixth sense" (Keirsey, p.23) and by noticing possibilities in the

706world. Other characteristics of Intuitives include: the enjoyment of learning something new, like

707to do things with an innovative bent, and prefer change to the status quo (Keirsey). Nearly 75

708percent of the world prefers sensing, with the other 25 percent prefers intuition.

709   The third preference identified in the MBTI is the way participants make decisions.

710Thinkers (T), enjoy making decisions logically, impersonally, and objectively. They are likely to

711use logical analysis to reach their conclusions and tend to be firm minded. Feelers (F) enjoy

712making decisions using values. They are likely to decide subjectively based upon their personal

713feelings in the moment. Feelers also enjoy working in harmony with people, and taking care of

714other's needs (Keirsey, 1978). The population preference is split according to gender; 60 percent

715of males prefer thinking while 60 percent of females prefer feeling.

716   Finally, the fourth preference identified in the MBTI is the way participants structure

717their outer life. Participants who prefer judging (J) like to live their life through plans,

718organization, and structure. They enjoy making schedules and having decisions settled.

719Perceivers (P) live their life through spontaneity. They enjoy keeping their options open and like

720leaving decisions subject to change. The population is split 50-50 when selecting a preference

721(Keirsey, 1978).

722   Understanding the practicality of the MBTI is important for participants to understand

723when interpreting the meaning behind their results. The MBTI indicates what a participant

724prefers for each construct. However, a personal preference type does not translate to exclusive

725use (bayne, 1997). A participant with an intuitive preference also uses the characteristics of a

726sensor to perceive the world. The intuitive simply chooses to rely on the gut feelings over the

727practical hard data that sensors prefer more of the time. Furthermore, results of the MBTI may

728lead participants to make erroneous conclusions about their results (Bayne, 1997). If a participant

729prefers a thinking preference to make decisions, it does not mean that the particular participant

730"thinks" better. The preference for thinking does not indicate ability or strength. Rather, the

731indication reveals that the participant simply chooses to make decisions of the basis of logic

732(Keirsey, 1978).

733   The instrument has shown strong validity and reliability. Provost (1990) stated "The

734MBTI is one of the most valid and reliable tools for personality assessment" (p. 15). Bayne

735(1997) has supported the reliability of the instrument by stating "On average, it is over .80,

736which is generally regarded as good for a personality measure" (p.14).

737   In the workplace, the MBTI has the ability to identify personality constructs. To identify

738and practically apply personality constructs may assist change implementers – such us middle

739and upper management – by introducing the change positively depending upon personality

740preference types. Just as previous research has identified how preference types relate to

741differences in learning styles, information processing, and idea forming, in regards to the

742delivery of organizational change, employees of different personality types may view change

743differently. This may explain why the same events in a situation are regarded differently.

744According to Availes (2001) "An employee who prefers feeling may experience a supervisor as

745casuistic and critical while the supervisor who prefers thinking may believe that his or her

746feedback is objective and accurate" (p.13).

747   For employees to be effective, continuous learning and application of job specific skills

748are required. However, employees can be resistant to change for numerous reasons. One

749instance, personality, may affect the level of resistance to the learning and application of new

750knowledge and skills. Currently, there is a lack of research exploring how the measurement of

751personality constructs pertains to an organizational resistance to change. This study seeks to

752determine if a relationship exists between resistance to change and personality preference types.

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768 **Chapter III**

769 **Research Methodology**

770 **Introduction**

771   The purpose of this study was to contribute to a better understanding of why employees

772 resist organizational change. More specifically, the purpose of this is study was to gain a better

773 understanding of resistance to organizational change based upon MBTI preference types. The

774 study surveyed technologists, specifically students within Eastern Illinois University's Master of

775 Science in Technology graduate program, to determine if a relationship exists between

776 personality preferences identified by the Myers-Briggs Type Indicator (MBTI) and level

777 resisting organizational change identified by the Dispositional Resistance to Change scale

778 (RTC).

779   Chapter III will define the research methodology used to complete this study. Included in

780 this study are research questions, research design, description of instruments, description of

781 participants, procedure for collecting data and data analysis techniques to be employed.

782 **Research Questions**

783   The research design, observations, data collection and analysis for this study were guided

784 by four research questions:

785   1. Is there a difference in the level of resistance to organizational change between

786   introverts and extroverts?

787   2. Is there a difference in the level of resistance to organizational change between

788   sensors and intuitives?

789   3. Is there a difference in the level of resistance to organizational change between

790   thinkers and feelers?

791   4. Is there a difference in the level of resistance to organizational change between

792   judgers and perceivers?

Research Design

794   The study utilized a quantitative research methodology to investigate four research

795questions. Technologists were surveyed to determine a level of resistance to change as related to

796the four dichotomies of the Myers Briggs Type Indicator©: 1) extroversion and introversion, 2)

797sensing and intuition, 3) feeling and thinking, and 4) judging and perceiving.

798   An independent samples t-test was used in this study. According to Rumsey (2009) an

799independent samples t-test is designed to test whether two groups' means are different. Rumsey

800(2009) notes the advantage of a t-test is that it allows you to compare means when variability is

801unknown and groups are small. Data was collected to determine what relationship exists between

802personality factors and personality based inclinations to resistance change. Due to the nature of

803this study, descriptive data from the population was collected using a classroom based survey.

804Results were reported in quantitative format. According to Drew (1980):

805   Survey research involves asking questions of a sample of subjects who are presumably

806   representative of the group being studied. The questions are related either directly or

807   indirectly to the topic under investigation, and the answers provided by the subjects

808   represent the data (p.32).

Description of Instruments

810   Data for this study were collected through two questionnaires: 1) the Myers- Briggs Type

811Indicator, and 2) the Dispositional Resistance to Change Scale. The first data collection

812instrument was the Myers-Briggs Type Indicator © form M - which was completed by

813Technologists to determine preference types. The second instrument utilized in this study was

814the Resistance to Change Scale developed by Oreg (2003), which was also completed by the

815participants to indicate a level of resistance to organizational change.

816Myers-Briggs Type Indicator

817   The MBTI is a self-report psychometric measurement instrument based upon Jungian

818theory that identifies individual personality preferences (Wheeler, Hunton, & Bryant, 2004). The

819instrument consists of 93 forced-choice questions measuring personality preferences concerning:

820(1) the direction of energy flow, (2) perceptions of the world, (3) decision-making, and (4) life

821structure.

822   Researchers have extensively examined the validity and reliability of the MBTI. Tischler

823(1994) found strong evidence of reliability utilizing factor analysis among a large research

824population. Myers, McCaully, Quenk, and Hammer (1998) examined the test-retest reliability

825using a national sample of 3,036, finding reliability ranging from .89 to .94.

826Resistance to Change Scale

827   The second data collection instrument utilized for the study was Oreg's (2003)

828Dispositional Resistance to Change scale. According to Oreg (2003), "the Resistance to Change

829Scale was designed to measure an individual's dispositional inclination to resist changes" (p.

830680). The scale consists of 17 items that measure routine seeking, emotional reaction to imposed

831change, cognitive rigidity, and short-term focus, all of which indicate an overall level of

832resistance to organizational change. One study by Oreg, Ofra, Metzer, Leder, and Castro (2009)

833sought to determine relationship between dispositional resistance to change and occupational

834interests and choices. The average level of resistance to change for the sample was 3.00; which

835was labeled as "inclined to disagree" with organizational change (p. 316).

836   The validity and reliability of the instrument has been examined. Oreg's studies have

837established the scales convergent, discriminate, and predictive validities, as well as its internal-

838consistency and its test – retest reliabilities (Oreg, 2003, 2006). Resistance to change scores were

839calculated to form an index of the Scale's test–retest reliability, which was .91 (Oreg, 2003).

840Additional studies by Oreg (2003) demonstrated the concurrent and predictive validities of the

841scale using independent samples. Permission to utilize the test was obtained in writing by

842contacting Dr. Shaul Oreg (See Appendix C).

843   **Description of Participants**

844   According to Tuckman (1994), the population used in a study is a group about which a

845researcher is interested in gaining information and drawing conclusions. The population

846identified for this study consisted of 140 current graduate students enrolled in the Master of

847Science in Technology program at Eastern Illinois University. These individual possess a

848minimum of a bachelor degree. This population was selected because some individuals are

849likely to go through more changes than others. Individuals earning a Masters of Science in the

850School of Technology are going to be more involved in organizational changes such as:

851efficiency, waste reduction, change management, performance improvement, and utilization of

852technology. These individuals are more likely to be involved in this form of change because a

853career within technology tends to depend heavily on changes due to the very nature of

854technology itself. Therefore it is important to understand this population's level of resistance to

855change.

856   **Procedure for Collecting Data**

857   In accordance with Eastern Illinois University regulations, approval from the Institutional

858Review Board was obtained. Next, participants in the study were contacted by Dr. Jerry Cloward

859and informed class time would be set aside for the researcher to collect data. During data

860collection, students were informed of their rights as research subjects and the instruments were

861administered by the investigator.

862 **Data Analysis Technique**

863 Descriptive analysis was used to answer the research questions. Survey results were

864imported into an excel spreadsheet at Eastern Illinois University. The responses of participants

865on both tests were used to compile data to determine if any significant differences of resistance

866to organizational change existed between two groups of each preference type. The statistical

867software SPSS, version 17 was used to analyze the results. The rejection level for the study was

868set at .05. This study's research questions were analyzed with data collected as outlined in Table

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894Table 1

895*Data Analysis Overview*

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	Research question	Data Analysis Technique
1	Is there a difference in the level of resistance to organizational change between introverts and extroverts?	Independent samples T-test
2	Is there a difference in the level of resistance to organizational change between sensors and intuitives?	Independent samples T-test
3	Is there a difference in the level of resistance to organizational change between thinkers and feelers?	Independent samples T-test
4	Is there a difference in the level of resistance to organizational change between judgers and perceivers?	Independent samples T-test

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899 **Summary**

900   The purpose of Chapter III was to describe the research methodology used in this study,

901describe the research design, instruments, participants, and methods used to collect and analyze

902the study's research questions. The results of the analysis will be reported in Chapter IV.

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909 **Chapter IV**
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911 **RESULTS**
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913 **Introduction**
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915   The purpose of this study was to contribute to a better understanding of why employees

916resist organizational change. More specifically, the purpose of this is study was to gain a better

917understanding of resistance to organizational change based upon MBTI preference types. Data

918collected for this study was obtained using a traditional face to face method from a sample of 33

919graduate students enrolled in the School of Technology at Eastern Illinois University. The

920information collected from participants was utilized to address the following research questions:

921   1. Is there a difference in the level of resistance to organizational change between

922   introverts and extroverts?

923   2. Is there a difference in the level of resistance to organizational change between

924   sensors and intuitives?

925   3. Is there a difference in the level of resistance to organizational change between

926   thinkers and feelers?

927   4. Is there a difference in the level of resistance to organizational change between

928   judgers and perceivers?

929   This chapter contains the description of the characteristics of the population, followed by

930the statistical analysis of data to address each research question. The chapter concludes with a

931summary of the findings.

932   **Population Demographic Data**

933   The population identified for this study consisted of current graduate students enrolled in

934the Master of Science in Technology program at Eastern Illinois University. These individual

935possess a minimum of a bachelor degree. The researcher contacted full time faculty requesting

936use of students during class time to collect data. 33 (N) students completed two instruments: 1)

937the Myers-Briggs Type Indicator, and 2) Dispositional Resistance to Change Scale.

938   Demographic data was collected from each participant and students were asked to

939identify their gender, age, ethnicity, marital status, and concentration in the Masters of

940Technology Program. The data in Table 2 summarizes demographic data by presenting the

941number and percentage for each category. Of the 33 participants, 22 (66.7%) were male and 11

942(33.3%) were female. The range in participants' ages was 34 years with a mean age of 30 years.

943The majority of the participants (N = 17, 51.5%) were between the ages of 21 and 38 years of

944age. The ethnic majority of the population was Caucasian (N = 15, 45.5%). Participants were

945mostly single (N = 20, 60.6%), while 13 (39.4%) indicated they were married. Of the 4 majors

946within the School of Technology, more than half (N = 17, 51.5%) reported their major as

947Computer Technology.

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958Table 2 *Respondent Demographics*

Gender	Number (N = 33)	Percent
Male	22	66.7
Female	11	33.3

Age	Number (N = 33)	Percent
21-28	17	51.5
29-36	9	27.3
37-46	4	12.1
47-55	3	9.1

Ethnicity	Number (N = 33)	Percent
African American	3	9.1
Asian	11	33.3
Caucasian	15	45.5
Native American	1	3
Other	3	9.1

Marital Status	Number (N = 33)	Percent
Single	20	60.6
Married	13	39.4

Major	Number (N = 33)	Percent
Career and Technical Edu.	1	3
Computer Technology	17	51.5
Technology Management	2	6.1
Training and Development	10	30.3
Other	3	9.1

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960   Participants were asked to identify their Myers-Briggs Type Indicator preference type.

961 Table 3 summarizes preference type data by presenting the number and percentage of each

962 preference type. Of the 33 total participants, 15 were extroverts (45.5%) and 18 were introverts

963 (54.5%). The majority of participants indicated they preferred sensing (N = 19, 57.6%) while 14

964 (42.4%) preferred intuition. Of the total population, 27 (81.8%) preferred thinking while 6

965 (18.2%) preferred feeling. 19 participants (57.6%) prefer judging opposed to 14 (42.4%) who

966 prefer perceiving.

967
968 Table 3 *Myers-Briggs Type Indicator*
969   *Preference Types*
970

Extroversion-Introversion	Number (N = 33)	Percent
Extroverts	15	45.5
Introverts	18	54.5
Sensing-Intuition	Number (N = 33)	Percent
Sensors	19	57.6
Intuitives	14	42.4
Thinking-Feeling	Number (N = 33)	Percent
Thinkers	27	81.8
Feelers	6	18.2
Judging-Perceiving	Number (N = 33)	Percent
Judgers	19	57.6
Perceivers	14	42.4

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972   **Research Question Results**
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974   The specific purpose of this study was to determine the relationship between preference

975types according to the Myers-Briggs Type Indicator and an overall level of resistance to

976organizational change based upon the Dispositional Resistance to Change Scale.

977*Question 1: Is there a difference in the level of resistance to organizational change between*

978*Extroverts and Introverts?*

979   According to Oreg (2006), resistance to change is a tridimensional (negative) attitude

980towards change, which includes affective, behavioral, and cognitive components. Every

981individual, characterized by their personality, may regard organizational change in a subjective

982matter. The data for each participant was collected for each of the items on the RTC. Table 4

983shows the average level of resistance to organizational change per personality type. Table 5

984shows the t score and the level of significance between the preference types.

985   An independent samples t-test was conducted to compare level of resistance to

986organizational change in participants who directed their energy flow outward (extroverts) to

987those participants who direct their energy flow inward (introverts).

988   Level of resistance to organizational change based upon energy flow was not significant,

989$t(31) = -1.36$, $p = .184$; Extroverts (M = 2.82, SD = .765) were not rated as significantly less

990resistant to change than Introverts (M = 3.16, SD = .703).

991*Question 2: Is there a difference in the level of resistance to organizational change between*

992*Sensors and Intuitives?*

993   An independent samples t-test was conducted to compare level of resistance to

994organizational change in participants who perceive the world in a concrete fashion (sensors) to

995participants who see the world "using their sixth sense" (intuitives). Level of resistance to

996organizational change based upon perception was not significant, $t(31) = 1.99$, $p = .055$; Sensors

997(M = 3.22, SD = .803) were not rated as significantly less resistant to change than intuitives (M =

9982.72, SD = .553).

999*Question 3: Is there a difference in the level of resistance to organizational change between*

1000*Thinkers and Feelers?*

1001   An independent samples t-test was conducted to compare level of resistance to

1002organizational change in participants who are likely to make decisions logically (thinkers) to

1003participants who often make decisions using personal values (feelers) to determine which group

1004has a higher level of resistance to change.

1005   Level of resistance to organizational change based upon decision making was not

1006significant, t(31) = -.149, p = .882; Thinkers (M = 3.00, SD= .714) were not rated as significantly

1007less resistant to change than Feelers (M = 3.05, SD = .931).

1008*Question 4: Is there a difference in the level of resistance to organizational change between*

1009*Judgers and Perceivers?*

1010   An independent samples t-test was conducted to compare the level of resistance to

1011organizational change in participants who are likely to have a life structure that features plans,

1012and organization (judgers) to participants who prefer a spontaneous life structure (perceivers).

1013Level of resistance to organizational change based upon life structure was not significant, t(31) =

10141.49, p = .147; Judgers (M = 3.17, SD = .738) were not rated as significantly less resistant to

1015change than perceivers (M = 2.79, SD = .714).

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1024Table 4 *Resistance to Organizational Change*

Extroversion-Introversion	Mean Resistance to	Standard Deviation

Organizational Change

Extroverts	2.82	.765
Introverts	3.16	.703

Sensing-Intuition

Sensors	3.22	.803
Intuitives	2.72	.553

Thinking-Feeling

Thinkers	3	.714
Feelers	3.05	.931

Judging-Perceiving

Judgers	3.17	.738
Perceivers	2.79	.714

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1027 Table 5 *T-Scores and Significance*
1028

Type Dichotomy	T-Score	P Value
Extroversion-Introversion	-1.36	.184
Sensing-Intuition	1.99	.055
Thinking-Feeling	-.149	.882
Judging-Perceiving	1.49	.147

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1032 **Summary**
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1034   This chapter provided data collection results for the four research questions that serve as

1035the purpose of this study: a) Is there a difference in the level of resistance to organizational

1036change between Introverts and Extroverts?, b) Is there a difference in the level of resistance to

1037organizational change between Sensors and Intuitives?, c) Is there a difference in the level of

1038resistance to organizational change between Thinkers and Feelers?, d) Is there a difference in the

1039level of resistance to organizational change between Judgers and Perceivers? Statistics are based

1040upon feedback from a survey of 33 (N) Eastern Illinois University Graduate Students in the

1041School of Technology.

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1070 **Chapter V**
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1072 **SUMMARY, CONCLUSIONS, AND RECOMMENDATION**
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1074 **Introduction**
1075
1076 The nature of this study was to determine if a relationship exists between the Myers-

1077Briggs Type Indicator and the Dispositional Resistance to Change Scale. In the previous chapter,

1078results of data collection were documented. This chapter will focus on a discussion of the results,

1079a review of limitations, and a proposal of recommendations.

1080 **Purpose of the study**
1081
1082 The purpose of this study was to contribute to a better understanding of resistance to

1083organizational change. More specifically, the purpose of this study was to gain a better

1084understanding of resistance to change in relation to personality preference types. Due to the

1085popularity of the Myers-Briggs Type Indicator (MBTI), researchers should investigate potential

1086emotions, thoughts, and behaviors in relation to organizational change based upon the constructs

1087measured by the MBTI. Individual differences in personality may be used to obtain a more valid

1088understanding of what resistance to change is really about.

1089 **Significance of the Study**
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1091 The identification, application, and measurement of organizational change are vital parts

1092of any organizational development initiative. While many factors may contribute to the

1093successful implementation and adaptation of change in the workplace, previous research has

1094indicated personality preferences types may play a role in the resistance to change.

1095 The MBTI has been widely used by organizations to improve performance by identifying

1096employee's personality preferences (Kuipers, et al., 2009). This interest has spurred research into

1097how employees differ from one another in their resistance to change in the workplace. Although

1098many factors influencing attitudes toward change exist, this study sought to identify an area that

1099previous research has overlooked. Previous research has failed to indicate how resistance to

1100change differs between employees based upon their personality preferences according to the

1101MBTI.

1102   This study contributed knowledge to professionals by establishing if personality factors

1103are related to resistance to change. The result of this study may spur further research into how

1104personality preference types contribute to an overall resistance to change level if a relationship is

1105found. Furthermore, this study may convey the importance of personality preference types in

1106relationship to organizational change. The relationship allows each preference type to regard

1107change with favor or disdain. The combination of the preference types, indicated by the MBTI,

1108may suggest that some personality types are strongly related to resistance to change and some are

1109not related to resistance to change.

1110   **Procedures**
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1112   Two instruments were utilized in the collection of data in this study. The Myers-Briggs

1113Type Indicator (MBTI) was used to identify individual personality preferences concerning: (1)

1114the direction of energy flow, (2) perceptions of the world, (3) decision-making, and (4) life

1115structure. The Dispositional Resistance to Change Scale (RTC) was utilized to measure an

1116individual's dispositional inclination to resist changes. Both instruments were well suited to

1117answer the research questions based upon the validity and reliability in measuring constructs.

1118   The population identified for this study consisted of 140 current graduate students

1119enrolled in the Master of Science in Technology program at Eastern Illinois University. These

1120individuals possess a minimum of a bachelor degree. To achieve participation, the researcher

1121delivered the two instruments simultaneously during a scheduled time. 33 (N) students were

1122sampled.

1123   **Analysis of Data**
1124
1125   Data from this study was collected through the MBTI and the RTC. Data results were

1126analyzed using a t-test, which yielded a t-score, mean, standard deviation, and probability. All

1127statistics were generated using the statistical software program, SPSS version 17.

1128   **Findings**
1129
1130   The following are the findings revealed after statistical analysis was conducted on the

1131data received from the survey instrument.

1132   Out of 33 participants, 22 (66.7%) were male and 11 (33.3%) were female. The range in

1133participants' ages was 34 years with a mean age of 30 years. The majority of the participants (N

1134= 17, 51.5%) were between the ages of 21 and 38 years of age. The ethnic majority of the

1135population was Caucasian (N = 15, 45.5%). Participants were mostly single (N = 20, 60.6%),

1136while 13 (39.4%) indicated they were married. When asked about their major within the School

1137of Technology, more than half seven-teen (51.5%) reported their major as Computer Technology.

1138Ten (30.3%), indicated their major as training and development, 2 (6.1%) as Technology

1139Management, 1 (3%) as Career and Technical Education, and 3 (9.1%) as "Other."

1140   Research Question 1: Is there a difference in the level of resistance to organizational

1141change between Extroverts and Introverts? When completing the two instruments, participants

1142indicated their MBTI preference types and overall level of resistance to organizational change.

114315 (45.5%) of participants typed themselves as extroverts, and 18 (54.5%) typed themselves as

1144introverts. Level of resistance to organizational change based upon energy flow was not

1145significant, $t(31) = -1.36$, $p = .184$; Extroverts (M = 2.82, SD = .765) were not rated as

1146significantly less resistant to change than Introverts (M = 3.16, SD = .703).

1147   Research Question 2: Is there a difference in the level of resistance to organizational

1148change between Sensors and Intuitives? 19 (57.6%) of participants typed themselves as sensors,

1149and 14 (42.4%) typed themselves as Intuitives. Level of resistance to organizational change

1150based upon perception was not significant, $t(31) = 1.99$, $p = .055$; Sensors ($M = 3.22$, $SD = .803$)

1151were not rated as significantly less resistant to change than Intuitives ($M = 2.72$, $SD = .553$).

1152   Research Question 3: Is there a difference in the level of resistance to organizational

1153change between Thinkers and Feelers? 27 (81.8%) of participants identified themselves as

1154Thinkers, and 6 (18.2%) of participants typed themselves as Feelers. Level of resistance to

1155organizational change based upon decision making was not significant, $t(31) = -.149$, $p = .882$;

1156Thinkers ($M = 3.00$, $SD = .714$) were not rated as significantly less resistant to change than

1157Feelers ($M = 3.05$, $SD = .931$).

1158   Research Question 4: Is there a difference in the level of resistance to organizational

1159change between Judgers and Perceivers? 19 (57.6%) participants typed themselves as Judgers,

1160while 14 (42.4%) identified themselves as Perceivers. Level of resistance to organizational

1161change based upon life structure was not significant, $t(31) = 1.49$, $p = .147$; Judgers ($M = 3.17$,

1162$SD = .738$) were not rated as significantly less resistant to change than Perceivers ($M = 2.79$, SD

1163$= .714$).

Discussion

1165   Individuals' resistance to change may derive from a number of factors, including the

1166context of the change itself. However, there are also dispositional aspects within each individual

1167that play a role in the perception of organizational change beyond context and circumstance.

1168Oreg (2003) identified 4 personality based inclinations that are directly related to a disposition to

1169resist organizational change. Those constructs, routine seeking, emotional reaction to change,

1170short term focus, and cognitive rigidity, measure resistance in the form of affective, behavioral,

1171and cognitive facets (Oreg, 2003). The mean level of resistance to change for the sample was

11723.01. Despite the small participant size (33), participant's overall level of resistance to change in

1173this study is supported by previous research. A study by Oreg et. al (2009) found that the mean

1174level of resistance to change for the sample was 3.00.

1175 Results for the first research question sought to illustrate the differing levels of resistance

1176to organizational change between two groups of participants. The first group was typed as

1177"Extroverts" based upon their outward flow of energy to people and objects. The second group

1178was typed as "Introverts" based upon their inward flow of energy to concepts and ideas. When

1179comparing the two group's preferred direction of energy, no significant differences were found in

1180the level of resistance to organization change. Because the constructs of resistance to

1181organizational change were grouped together and averaged, researchers can conclude that no

1182significant difference exists between groups when comparing overall levels of resistance to

1183change. Although a relationship was not discovered between groups using a comprehensive level

1184of resistance, "introverts" may resist change affectively and cognitively more so than extroverts

1185due to their focus on thoughts, ideas, and emotions (Kerisey, 1978).

1186 The second research question sought to determine if a relationship exists between the

1187personality constructs of world interpretation and an overall level of resistance to change. Results

1188for the second question sought to illustrate the differing levels of resistance to organizational

1189change between two groups of participants. The first group was typed as "Sensors" characterized

1190by a concrete, factual interpretation of the world. The second group, "Intuitives," is characterized

1191by an abstract, fanciful view of the world. When comparing the two groups preferred method of

1192interpreting the world, no significant difference was found in the level of resistance to

1193organizational change. Although "Intuitives" are often characterized as those who "enjoy

1194learning something new, do things with an innovative bent, and change the status quo" (Kerisey,

11951978, p.23), they did not significantly report a significant difference in their level of resistance to

1196organizational compared to "Sensors." Additionally, "Sensors" who have been said to prefer to

1197use skills already perfected (Kerisey, 1978) reported no significant difference in an overall level

1198of resistance to change compared to "Intuitives," despite potential changes to applied skills.

1199However, the data may be trending toward statistical significance. Past research has supported

1200the idea that preferred interpretation of the outer world as a measure of the MBTI, paired with

1201the decision-making function, has led to significant differences in a level of resistance to

1202organizational change (Overbay, Patterson, and Grable, 2009). Furthermore, the mean difference

1203of resistance to organizational change for intuitives was .29 lower than the sample average, and

1204.5 lower than Sensors, indicating that significance on this dichotomy may be obtained with a

1205larger sample and less variability.

1206   The third research question sought to determine if a relationship exists between the

1207personality constructs of decision-making and an overall level of resistance to change. Results

1208for the third question sought to illustrate the differing levels of resistance to organizational

1209change between two groups of participants. The first group was typed as "Thinkers,"

1210characterized by an objective, logical, principled style of decision making. The second group,

1211"Feelers," is characterized by a values-driven style of decision making. When comparing the two

1212groups preferred method of decision making, no significant difference was found in the level of

1213resistance to organizational change. One study by Overbay, Patterson, and Grable (2009)

1214compared teachers with a sensing-thinking learning style compared to those with a sensing-

1215feeling learning style on a level of resistance to organizational change. On each construct of

1216change resistance (cognitive rigidity, short-term focus, routine seeking and emotional reaction)

1217ST learning styles scored more resistance to change than SF styles. The results found in this

1218study may illustrate the outcomes possible when preference types are combined into different

1219groups, although the mean for each group was very close to the mean for the sample.

1220   The fourth research question sought to determine if a relationship exists between the

1221personality constructs of life structure and an overall level of resistance to change. Results for the

1222fourth question sought to illustrate the differing levels of resistance to organizational change

1223between two groups of participants. The first group was typed as "Judgers," characterized by a

1224lifestyle that features structure, plans, and organization. The second group, "Perceivers," is

1225characterized by a lifestyle that leaves options open and features spontaneity. When comparing

1226the two groups preferred methods of life structure, the level of resistance to organizational

1227change was not significant. The difference of the mean scores between the groups was .38.

1228   Factors affecting the generalizability of the results include:

1229   1.   The results of the proposed research may differ from the overall population of

1230   graduate students.

1231   2.   The study only collected data from graduate students enrolled in the School of

1232   Technology at Eastern Illinois University. Conclusions may not be generalized

1233   beyond this scope.

1234   3.   The study only measured some personality preferences.

1235   4.   The study only measured some constructs that resist change.

1236   5.   The responses to the survey were based on self-assessment of both personality

1237   and attitudes toward change. For the purpose of this study, it will be assumed that

1238   participants answered questions honestly.

1239 **Implications of Study**

1240   The results from this study were intended to contribute to a better understanding of the

1241relationship between personality and resistance to organizational change. This study contributed

1242to the knowledge of the relationship between personality preference types according to the MBTI

1243and individual constructs that resist organizational change. Evidence suggests that the difference

1244in the level of resistance to organizational change based upon the MBTI preference types is not

1245significant.

1246   **Recommendations for Practice**

1247   This study brings to light the strength of the relationship between some aspects of

1248personality according to the MBTI, such as the direction of energy flow, interpretation of the

1249world, decision-making style and life structure, and the relationship to other aspects of

1250personality: routine seeking, emotional reaction to change, short term focus, and cognitive

1251rigidity. As organizations continue to coup with necessary change and seek ways to overcome

1252resistance, further research must be done to reveal the relationships between personality and

1253resistance to change.

1254   **Recommendations for Further Research**

1255   The findings of this study suggest the following concerns which suggest the need for

1256further research.

1257   1.   A similar study should be conducted on a larger scale. The study should include

1258   more graduate students in the School of Technology at Eastern Illinois University

1259   as it would provide a clearer relationship between the Myers-Briggs Type

1260   Indicator and the Dispositional Resistance to Change Scale.

1261   2.   Replicate the study using employees in a fortune 500 company. Successful

1262   organizations are likely to be highly competitive and introduce changes at a

1263   higher frequency than students in higher education. Participants with more

1264   organizational change experience may resist change differently.

1265   3.   Extend the depth of this study to discover the relationship between MBTI

1266   preference types and individual constructs of resistance to organizational change.

1267   Some MBTI preference types, such as introverts, may score higher on the

1268   affective and cognitive aspects of resistance to change.

1269   4.   Change the breadth of this study to seek a relationship between MBTI dominant

1270   function type and overall resistance to change. Dominant functions are preferred

1271   methods of utilization and are considered an individual's greatest strength. Those

1272   whose dominant function is Introverted Thinking may differ from another whose

1273   dominant function is Extroverted Sensing, although both individuals may have

1274   different preference types.

1275   **Conclusion**

1276   The purpose of this research study was to contribute to a better understanding of the

1277relationship between personality and resistance to organizational change. The research study

1278collected data regarding participants' personality preference types and resistance to

1279organizational change among graduate students in The School of Technology at Eastern Illinois

1280University. Data was analyzed using the statistical software SPSS, version 17. The result of the

1281research revealed the frequency of the four MBTI preference types. The difference of the level of

1282resistance to organizational change based upon each of the four MBTI preference types was not

1283significant. Recommendations for practice and further research were made based on the findings

1284of this study.

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1469 **APPENDIX A**
1470 GRADUATE STUDENTS IN EIU SCHOOL OF TECHNOLOGY DEMOGRAPHIC
1471 QUESTIONAIRE
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1473
1474Instructions: Please read each questions carefully and then circle the choice that MOST
1475CLOSLEY matches your situation. Your responses will be kept confidential and no information
1476that could be used to identify survey participants will be released. Thank you for your
1477participation!
1478
1479　1. What is your personality preference type according to the MBTI?
1480　　　a. _____
1481
1482　2. What is your gender?
1483　　　a. Male
1484　　　b. Female
1485
1486　3. What is your age in years?
1487　　　a. _____
1488
1489　4. What is your ethnic background?
1490　　　a. Caucasian (non-hispanic)
1491　　　b. African American
1492　　　c. Asian
1493　　　d. Native American
1494　　　e. Other (Please specify) _____
1495
1496　5. What is your marital status?
1497　　　a. Single
1498　　　b. Married
1499
1500　6. What is your major?
1501　　　a. Career and Technical Education
1502　　　b. Computer Technology
1503　　　c. Technology Management
1504　　　d. Training and Development
1505　　　e. Other (Please specify) _____
1506
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1516   **APPENDIX B**

1517   **DISPOSITIONAL RESISTANCE TO CHANGE SCALE**

1518

1519 Instructions: Listed below are several statements regarding one's general beliefs and attitudes

1520 about change. Please indicate the degree to which you agree or disagree with each statement

1521 by selecting the appropriate number on the scale next to it. Describe yourself as you generally

1522 are now, not as you wish to be in the future. Thank you for your participation!

1523

Statement	Strongly disagree	Disagree	Inclined to disagree	Inclined to agree	Agree	Strongly agree
1. I generally consider changes to be a negative thing.	1	2	3	4	5	6
2. I'll take a routine day over a day full of unexpected events any time.	1	2	3	4	5	6
3. I like to do the same old things rather than try new and different ones.	1	2	3	4	5	6
4. Whenever my life forms a stable routine, I look for ways to change it.	1	2	3	4	5	6
5. I'd rather be bored than surprised.	1	2	3	4	5	6
6. If I were to be informed that there's going to be a significant change regarding the way things are done at school, I would probably feel stressed.	1	2	3	4	5	6
7. When I am informed of a change of plans, I tense up a bit.	1	2	3	4	5	6
8. When things don't go according to plans, it stresses me out.	1	2	3	4	5	6
9. If one of my professors changed the grading criteria, it would probably make me feel uncomfortable even if I thought I'd do just as well without having to do extra work.	1	2	3	4	5	6
10. Changing plans seems like a real hassle to me.	1	2	3	4	5	6
11. Often, I feel a bit uncomfortable even about changes that may potentially improve my life.	1	2	3	4	5	6
12. When someone pressures me to change something, I tend to resist it even if I think the change may ultimately benefit me.	1	2	3	4	5	6
13. I sometimes find myself avoiding changes that I know will be good for me.	1	2	3	4	5	6
14. I often change my mind.	1	2	3	4	5	6
15. I don't change my mind easily.	1	2	3	4	5	6
16. Once I've come to a conclusion, I'm not likely to change my mind.	1	2	3	4	5	6
17. My views are very consistent over time.	1	2	3	4	5	6

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1528 **APPENDIX C**
1529 APPROVAL TO USE INSTRUMENT
1530
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1538 Cornell University, ILR School Department of Organizational Behavior
1539 356 Ives Faculty Building
1540 Ithaca, NY 14853-3901
1541
1542 Thomas A. Rausch
1543 Graduate Assistant Center for Academic Technology Support
1544 1511 1st St. APT 13
1545 Charleston, IL 61920
1546
1547 Dear Thomas,
1548
1549 You are free to use the scale. Please note, however, that it does NOT
1550 measure "attitudes toward resisting change". It measures one's
1551 personality-based inclination to resist change.
1552
1553 Best of luck with your work,
1554
1555 Shaul Oreg
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1574 **APPENDIX D**
1575 IRB CERTIFICATION OF EXEMPTION
1576 EASTERN ILLINOIS UNIVERSITY
1577 CHARLESTON, IL
1578
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1580September 22, 2010
1581
1582Thomas Rausch
1583
1584Thank you for submitting the research protocol titled, "The Relationship Between the Myers-
1585Briggs Type Indicator and the Dispositional Resistance to Change Scale" for review by the
1586Eastern Illinois University Institutional Review Board (IRB). The IRB has reviewed this research
1587protocol and effective 9/21/2010, has certified this protocol as Exempt from Further Review. The
1588protocol has been given the IRB number 10-093.
1589
1590The classification of this protocol as Exempt from Further Review is valid only for the research
1591activities and subjects described in the above named protocol. IRB policy requires that any
1592proposed changes to this protocol must be reported to, and approved by, the IRB before being
1593implemented. You are also required to inform the IRB immediately of any problems encountered
1594that could adversely affect the health or welfare of the subjects in this study. Please contact me,
1595or the Compliance Coordinator at 581-8576, in the event of an emergency. All correspondence
1596should be sent to:
1597
1598Institutional Review Board
1599c/o Office of Research and Sponsored Programs
1600Telephone: 217-581-8576
1601Fax: 217-581-7181
1602Email: eiuirb@www.eiu.edu
1603
1604Thank you for your cooperation, and the best of success with your research.
1605
1606
1607
1608
1609Robert Chesnut, Chairperson
1610Institutional Review Board
1611Telephone: 217-581-2125
1612Email: rwchesnut@eiu.edu
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