

**The Effect of Exaggeration of the Cartoons  
on the Performance  
of Field Dependent Learners**

**by**

**Mohammad Abdul- Qader Qadiri**

**Dissertation submitted to the Faculty of the  
Virginia Polytechnic Institute and State University  
In partial fulfillment of the requirements for the degree of**

**DOCTOR OF PHILOSOPHY**

**in**

**Instructional Technology**

**APPROVED:**

---

**Dr. David M. Moore, Chairman**

---

**Dr. Glen A. Holmes**

---

**Dr. James E. LaPorte**

---

**Dr. Jimmie C. Fortune**

---

**Dr. John K. Burton**

**June, 1999  
Blacksburg, Virginia**

**Copyright ©. 1999. Mohammad A. Qadiri**

## **Acknowledgements**

This work is the sum of great help from many great people and I owe them sincere gratitude for what they have done for me. At the peak of thanks, after God, I would to acknowledge my committee chairman, David Mike Moore, and committee members John Burton Jimmie Fortune, Glen Holmes, and James LaPorte, for providing me endless help, support, advice, and warm friendship, more than I had expected. Frankly, I always felt that I was among my family when I was among them, and without their efforts, it would be hard, if not impossible, to be kicked out of the nest. Everybody kept telling me that I was lucky to have those people on my committee. Thanks to God who made me lucky.

Also, I would like to thank Terry Davis, the secretary of the Instructional Technology Department for all the help she provided for me. Special thanks to Dr. Norman Dodoll, Dr. Barbara Lockee, and Dr. Glenda Scales in for every thing they did for me. Also, I would like to thank my friend Berlinda Saenz, the assistant in the lab, who always helped me and never hesitated when she was asked for help. To my Chinese friend Joy Yong, who I always respected like a daughter, I would like to send my thanks, and I wish for her to finish her PhD before she has her first baby. My fellow graduate student Bob, now a doctor, provided material on humor that was very helpful, and I thank him. For Carolyn Kletnieks, I wish success on her prospectus and that she will soon have her doctorate.

The Writing Center at Virginia Polytechnic Institute and State University is my other home besides the Instructional Technology Lab, so I can never forget what they have done for me especially Cathee Dennison, the Director of the Writing Center, who

became a member of my family and did more than she should have had to. Special thanks to Marc Peterson and Bruce Watson for convincing their students to participate in the experiment and control treatments. I would like to thank Marc Zaldivar, the first person I met in the Writing Center. Thanks also to Rebeca Bier, the support staff person, and her predecessor, Tanya Reece.

St. Martin's Press's, representative Bob Podstepny contacted editor Michell McSweeney who then contacted Diana Hacker, author of A Writer's Reference. Ms. Hacker gave me permission to use the exercises that accompany her book in my research.

Special thanks to the friends in Blacksburg, Bader Al- Khudari and his wife Salwa Jawhar and their children Aziz, Abdullah, and Ali for all the help they have provided to me and to my family during our study life here. Also, great thanks to my friends: Aref Al-Derbass, Jaber Al- Medaj, and Odah Al-Rowaei; we were at the right place at the right time to meet and communicate personally with people like them in the USA, although they are from my country, Kuwait.

Shoghic Sahakyan, my advisor in the Cultural Division at the Embassy of the State of Kuwait was a polite and helpful person, and she was always there when she was needed. I would like to thank her for everything she has done for me. Also, I would like to thank her predecessor, Geoffery Miller, the former advisor in the Cultural Division.

I would like to express my gratitude to the friends with whom I communicated during my work. They strongly supported me to continue my Ph.D although I was in the autumn of my years: Dr. Abdul-Azeez Al-Ghanim, Abdullah Al-Hashim, Dr. Abdullah Al-Shiekh, Dr. Abdul-Rahman Al-Ahmad, Dr. Abdul-Raheem Thyab, Dr. Ahmad Bu-

Zubar, Dr. Yagoob Ali, Dr. Jasem Al-Kandary, Dr. Rasheed Al-walaieti, Dr. Saad Al-Hashel, and Dr. Saleh Jasem.

Thanks to staff of the college of Instructional Technology of the College of Education: Dr. Fatema Dashti, Dr. Iqbal Behbehani, Dr. Mousa Al-Qattan, Dr. Suad Al-Feraih, Ali Budraid, Attef Arrafa, Awatif Al-besher, Eatemad Al-Kandari, Fahad Mal-Allah, Futooh Shuaib, Kamal Al-Desouqi, Nadia Al-Zamel, and Hedaiat.

I would also like to thank the Educational Library Groups, especially Nadia Al-Abbad, the director of the library, and her secretary Nahed Muheeb, and Dr. Ali Al-Holy. Additionally, thanks to my friends and colleagues in the College of Education: Dr. Ali Al-Habeeb, Dr. Abdullah Alhajri, Dr. Abdul-Kareem Alkhaiatt, Dr. Bader Al-Omar, Dr. Bader Al-Shaibani, Dr. Ibraheem Karam, Nadaa Al-Shatti, Najat Al-NasrAllah, and Taghreed Al-Ayoob. Finally, I will never forget the help that I had from Ahmad Al-Dakheel, Abdul-lateef Madooh, Adel Al-Masaad, Ali Shuaib, Ahmad Al-Shatti. To all of them, thank you from the bottom of my heart and God bless you.

Special thanks to those who have been my friends throughout my whole life that I have been involved with and without whose sincerity and trust, I would never have arisen from my failure, and the relationship has become stronger through time: Sultan Yakoub and his brothers Yousef and Jasem, the terror of the soccer games, and their mother and aunt, Khaleifa Al-Jouaied, Fawzi Al-Shareedah, Fawaz Al-Qattan and his family, Fahad Al-Ruwaished, and Mohammad Al-Shatti.

Thanks to my friends in the neighborhood: Abdul-Latteef Al-Wahaib, Ali and Sauod Al-abbad, Fahad Jar-Allah Al-Habeeb, and Sauod Al-Deane.

I humbly present this study to the spirit of my father, Abdul-Qader Qadiri, and to my mother Mariam Zakaryia Al-Ansari, whom I wish long life and for God to bless her. Also, I would like to thank my brothers and their families: Mustafa, Qasem, and Adnan, and my sisters Hayat and her family, and Zahrah.

What can I say about my wife Jameelah? Whatever I say or write, it will be not enough to cover what she does for me. My mother always told me that God gave me Jameelah and blessed me. I really feel what my mother always told me when I look at my children Sultan, Naser, and Raheel. They are polite, smart, and friendly, and have a sense of humor. Anyone who has this kind of family must own more than the treasures of the world, and he has to thank God as long as he breathes. Without them, I do not know what the test of life would look like.

Finally, this moment needs only one person to share this happiness with me, my brother Zakaryia, the prisoner hostage in Iraq, whom I always pray for and ask God to help to be released, and all hostages as well. I wish they will be released and returned to stop the tears from the eyes of those who love them.

## **Abstract**

The purpose of this study was to investigate the assumptions of Hunter, Moore, and Sewell in their 1990 study, in which field dependent learners could use the exaggeration of salient cues that are presented in cartoons to improve their learning. In general, the literature indicated that cartoons could affect the performance of students when they are used as supplemental education devices. Moreover, cartoons can facilitate learning when they are enjoyed and attracted by teachers and students alike.

Literature revealed that field dependent learners are affected by their level of cognitive style when they perceive a stimulus. Field dependent learners accept the information as presented, and they need help from outside to analyze this information. The more salient or noticeable cues affect the performance of field dependent learners despite the relevancy of these cues to the subject matter.

A review of the literature indicated that only the Hunter, Moore, & Sewell (1990) explored the relationship between cartoons and field-dependence. Their study suggested that field dependent learners would benefit from the exaggeration of salient cues in the cartoons; this suggestion framed the hypothesis of the current study. The present study assumed that exaggeration in the cartoons would maximize the performance of field dependent learners. Moreover, this study examined the suggestion of Hunter, Moore, and Sewell (1990), and if their suggestion was true, then the field dependent students who learned through the exaggeration treatment would outscore field dependents learned with no exaggeration.

Participants in this study were 66 freshmen students who attended English classes in the Writing Center at Virginia Polytechnic Institute and State University. The students

were randomly distributed into two groups. The teaching group studied English grammar with the exaggeration of cartoons employed as a teaching strategy. The control group studied the same materials, with no cartoon exaggeration.

The Group Embedded Figure Test (GEFT) was employed to classify students as having a field dependent, field neutral, or field independent cognitive style. The purpose for the examination of cognitive style's was to assist in determining if the exaggeration of cartoons would positively affect the performance of field dependent students.

The dependent variable was a written immediate test of 30 problems. The data were analyzed using two-way Analysis of Variance. All hypotheses of this study were rejected, and no significant differences in the main effects and no interaction between the independent variables were indicated. The study did not support the suggestion of Hunter, Moore, and Sewell (1990), and the results indicated that field dependence did not benefit from exaggeration in the cartoons to be used as salient cues to maximize their learning.

## TABLE OF CONTENT

CHAPTER ONE.....	1
INTODUCTION.....	1
PURPOSE OF THE STUDY.....	2
REVIEW OF THE LITERATURE.....	6
Visual Memory.....	6
Cartoons.....	10
Field Dependent Cognitive Style.....	13
Test Development.....	19
The Embedded Figure Test.....	20
The Group Embedded Figure Test.....	20
THE RESESEARCH QUESTIONS.....	22
RESEARCH HYPOTHESES.....	22
CHAPTER.II .....	24
METHODOLOGY.....	24
INTRODUCTION.....	24
THE PRESENT STUDY.....	25
Example One.....	25
Example Two.....	26
MATERIALS.....	27
GEFT.....	27
Written Test.....	27
Use of the GEF.....	28
TEACHING TREATMENT.....	29
DEPENDENT MEASURE.....	29



Example of the Dependent Measure.....	30
VALIDITY AND RELIABILITY.....	30
Validity.....	30
Reliability.....	31
RESEARCH DESIGN.....	31
 CHAPTER III.....	 33
RESULTS.....	33
HYPOTHESES ONE.....	34
Table of Means and Standard Deviations by Main Effects.....	35
HYPOTHESES TWO.....	35
Table 5 (Means and St. Dev. of Field Dependence Only.....	36
HYPOTHESES THREE.....	37
SUMMARY.....	40
 CHAPTER IV.....	 41
DISCUSSION.....	41
 REFERENCES.....	 46
 APPENDIXES	
APPENDIX A: Letter from the publisher.....	55
APPENDIX B: Letter from the Writing Center.....	57
APPENDIX C: Dependent Measure.....	59
APPENDIX D: Exaggeration Treatment.....	63
APPENDIX E: No-Exaggeration Treatment. ....	70

APPENDIX F: GEFT Frequencies.....	77
APPENDIX G : ANOVA Tables.....	79
APPENDIX H: Informed Consent.....	82
VITA.....	85