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**A GUIDELINE OF PRIVATE-PHOTOGRAPHY IN
INTERACTIVE INSTALLATION ART THROUGH THE
STIMULUS-ORGANISM-RESPONSE (SOR) MODEL IN CHINA**



**DOCTOR OF PHILOSOPHY
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Awang Had Salleh
Graduate School
of Arts And Sciences

Universiti Utara Malaysia

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: **Assoc. Prof. Dr. Ahmad Hisham Zainal Abidin**

Tandatangan
(Signature)

Nama Penyelia/Penyelia-penyelia
(Name of Supervisor/Supervisors)

: **Assoc. Prof. Ts. Dr. Adzrool Idzwan Ismail**

Tandatangan
(Signature)

Nama Penyelia/Penyelia-penyelia
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Abstrak

Fotografi peribadi merupakan satu fenomena budaya yang dibentuk oleh transformasi sosial dan sejarah, dengan ramai sarjana telah memberikan perspektif mereka tentang perkembangannya. Dimensi fungsi fotografi ini terutama sekali merupakan cerminan melalui amalan fotografi dokumentari. Dalam beberapa tahun kebelakangan ini, fotografi peribadi telah beralih kepada ekspresi emosi melalui teknologi, manakala seni interaktif pula berperanan meningkatkan penglibatan khalayak. Namun, integrasi kedua-duanya menghadapi cabaran, khususnya dalam mengimbangi interaktiviti dengan keakraban, di samping masih wujud jurang penyelidikan dalam aspek mekanisme emosi dan strategi susun atur kurator. Kajian ini bertujuan membangunkan garis panduan bagi meningkatkan pengalaman emosi dalam pameran fotografi peribadi berskala kecil melalui seni interaktif dan reka bentuk multi-deria dengan menggunakan kaedah campuran (mixed methods) untuk mengenal pasti elemen teras serta mencadangkan strategi susun atur. Kajian ini menangani cabaran mengimbangi interaktiviti dan keakraban dengan menggunakan model SOR bagi menjelaskan bagaimana instalasi interaktif dapat meningkatkan pengalaman emosi dalam pameran fotografi peribadi. Pendekatan kaedah campuran telah digunakan, merangkumi temu bual kualitatif dengan 23 orang kurator Cina dan tinjauan kuantitatif melibatkan 348 responden. Analisis data merangkumi pengekodan tematik dan regresi berganda. Rangsangan visual dan auditori merupakan elemen teras dalam meningkatkan pengalaman emosi dalam instalasi interaktif fotografi peribadi, kerana ia mempengaruhi persepsi kognitif dan mendorong niat penyertaan. Walaupun maklumat kebiasaannya mempengaruhi kognitif, kesan terhadap emosi adalah terhad. Mengimbangi kreativiti dengan sumber serta menggunakan reka bentuk multi-deria yang diperibadikan bukan sahaja mengesahkan model SOR tetapi juga menyediakan strategi yang disasarkan. Kajian ini memperkukuh aplikasi model SOR dalam instalasi interaktif fotografi peribadi dengan memperhalusi mekanisme multi-deria. Dari perspektif praktikal, ia menyediakan garis panduan susun atur untuk kurator, manakala dari perspektif sosial, ia mempertingkatkan keterangkuman budaya serta mempromosikan peranan seni interaktif dalam pameran khusus.

Kata Kunci: Fotografi peribadi, SOR, Seni pemasangan interaktif, Pengalaman emosi, Susun atur multi-deria.

Abstract

Private photography is a cultural phenomenon shaped by social and historical transformations, with many scholars contributing perspectives on its development. The functional dimension of this form of photography is primarily reflected in documentary practices. In recent years, private photography has shifted towards emotional expression through technology, while interactive art has served to enhance audience engagement. However, integrating the two poses challenges, particularly in balancing interactivity with intimacy, and existing research gaps remain in areas such as emotional mechanisms and curatorial strategies. This study aims to develop a guideline for enhancing emotional experiences in small private-photography exhibitions via interactive art and multi-sensory designs using mixed methods to identify core elements and propose design strategies. This study addresses the challenge of balancing interactivity and intimacy by applying the SOR model to clarify how interactive installations enhance emotional experiences in private-photography exhibitions. A mixed-methods approach was employed, consisting of qualitative interviews with 23 Chinese curators and quantitative surveys of 348 respondents. Data analyses included thematic coding and multiple regression. Visual and auditory stimuli are central to enhancing emotional experiences in private-photography interactive installations, as they influence cognitive perceptions and drive participation intentions. While information familiar affects cognition, it has limited influence on emotion. Balancing creativity with resources and employing personalized multi-sensory designs not only validate the SOR model but also provide targeted strategies. This study advances the application of the SOR model in private-photography interactive installations by refining multi-sensory mechanisms. From a practical perspective, it provides design guidelines for curators, while from a social perspective, it enhances cultural inclusiveness and promotes the role of interactive art in niche exhibitions.

Keywords: Private-photography, SOR, Interactive installation art, Emotional experience, Multi-sensory design.

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter provides a detailed overview by outlining the study's background, the problems at hand, the research questions, goals, importance, scope, essential term explanations, and the structure of the thesis. Through this section, readers could obtain a clear understanding of the study's main content, aiding in forming an initial grasp of the topic.

1.2 Background of the Study

Private-photography is a cultural photography phenomenon shaped by social and historical changes (Gu, 2006; Huang, 2020; Li, 2010; Si, 2000; Yang, 2010; Zhu, 2012). Many scholars have shared their perspectives on this cultural phenomenon. Gu (2006) suggests that before understanding the concept of Private-photography, one should begin with the evolution of photography. Cotton (2009) believes that the development of photography started with a sense of social responsibility. The functional aspect of this type of photography is mainly reflected in the form of documentary photography. Documentary photography emerged around the 1920s, focusing on functionality and primarily used to truthfully document and reflect social events. The subject matter of documentary photography often involved marginalized groups in society (Cotton, 2009).

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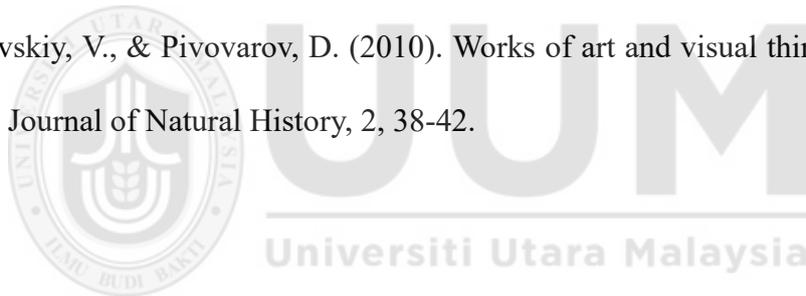
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Appendix A

Questionnaire on the Personal Photography in Interactive Installation Art - Advancing the Emotional Experience (in English)

Dear sir/madam,

How do you do! I am conducting an investigation into increasing the emotional experience of the viewer in a personal photography exhibition through interactive installation art. After you read each option, please make your choice according to the requirements of the question. This survey is anonymous and could not involve your personal privacy. The content of the survey is for my PhD thesis only.

Your answers could also be treated as confidential and could only be used for academic purposes.

Thank you very much for your assistance and contribution!

Yours sincerely,

Wang Shihui



PART ONE: SOCIO-DEMOGRAPHIC DETAILS

The following statement is about your personal background. Please tick the appropriate box.

1. Gender: Male Female ;
2. Age: Under 30 30-39 40-49 50-59 Over 60 (including 60) ;
3. Exhibiting Place: Beijing Shanghai Guangzhou
4. Annual family income (In CNY):
Less than ¥100,000 ¥100,000-¥300,000 ¥300,001-¥500,000
Over ¥500,000 ;
5. Marital status: Married Single
6. Educational Background:
Undergraduate Master's Degree Doctoral Degree
Others, please specify: _____.

PART TWO: VISUAL STIMULUS

To what extent do you agree with the following statements? Please tick your choice below:

Question Items	Scale						
	Strongly disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly agree
1. Were you attracted by the visual elements (e.g., color, lighting, images) in the exhibition?							
2. Did the visual effects in the exhibition help you understand the emotional expression of the artworks?							
3. Did the dynamic changes in visual elements in the exhibition enhance your attention?							
4. Did the visual effects in the exhibition give you a deeper understanding of the exhibition content?							
5. Did the visual design in the exhibition evoke a strong emotional response in you?							

PART THREE: AUDITORY STIMULUS

To what extent do you agree with the following statements? Please tick your choice below:

Question Items	Scale						
	Strongly disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly agree
1. Did the background music make it easier for you to immerse yourself in the exhibition atmosphere?							
2. Did changes in sound effects arouse your interest in the exhibition content?							
3. Did the sound elements enhance your emotional experience of the exhibition?							
4. Did the auditory stimuli give you a deeper understanding of the exhibition content?							
5. Did the music in the exhibition create emotional resonance in you?							

PART FOUR: INFORMATION FAMILIARITY

To what extent do you agree with the following statements? Please tick your choice below:

Question Items	Scale						
	Strongly disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly agree

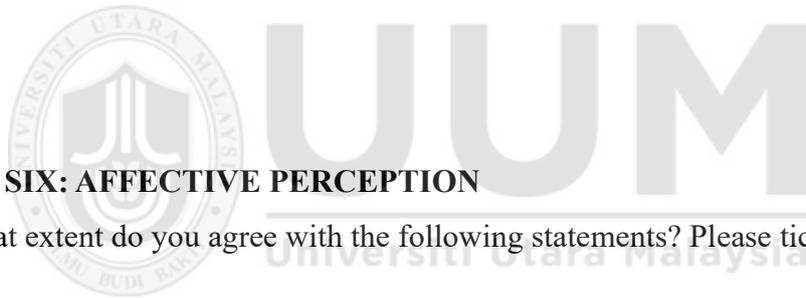
1. Are you familiar with the theme and content of the exhibition?							
2. Were you able to quickly understand the background information of the exhibition?							
3. Did your familiarity with the content make it easier for you to resonate emotionally with the artworks?							
4. Did the familiar content help you gain a deeper understanding of the exhibition?							
5. Did your cognitive background of the exhibition's theme enrich your overall experience?							

PART FIVE: COGNITIVE PERCEPTION

To what extent do you agree with the following statements? Please tick your choice below:

Question Items	Scale						
	Strongly disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly agree
1. Did the content of the exhibition stimulate your thinking?							
2. Did the information provided help you better understand the background							

of the exhibits?							
3. Were you able to clearly comprehend the concepts conveyed in the exhibition?							
4. Did the interactive installations make you think more deeply about the exhibition's theme?							
5. Did the exhibition content enhance your understanding of the subject matter?							



PART SIX: AFFECTIVE PERCEPTION

To what extent do you agree with the following statements? Please tick your choice below:

Question Items	Scale						
	Strongly disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly agree
1. Did the exhibition content trigger your emotional response?							
2. Did the interactive installations make you feel a stronger emotional resonance?							
3. Did the emotional expression of the exhibition allow you to form a deep							

emotional connection with the artworks?							
4. Did the visual and auditory elements resonate with you emotionally regarding the exhibition content?							
5. Did the interactive design of the exhibition deepen your emotional experience?							

PART SEVEN: SUBSEQUENT INTENTIONS

To what extent do you agree with the following statements? Please tick your choice below:

Question Items	Scale						
	Strongly disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly agree
1. Are you coulding to recommend this exhibition to others?							
2. Would you like to visit this exhibition again?							
3. Has this exhibition sparked your interest in attending similar exhibitions?							
4. Has this exhibition influenced your future artistic preferences?							
5. Has this exhibition motivated you to further explore its themes?							



Appendix B

Questionnaire on the Personal Photography in Interactive Installation Art - Advancing the Emotional Experience (in Chinese)

尊敬的先生/女士：

您好！我正在进行一项关于通过互动装置艺术提升个人摄影展观众情感体验的调查。在阅读每个选项后，请根据问题的要求作出您的选择。本次调查为匿名调查，不涉及您的个人隐私，问卷内容仅用于我的博士论文研究。

您的答案将被严格保密，仅用于学术研究目的。

非常感谢您的帮助和支持！

此致

敬礼

王女士



第一部分：社会人口背景

以下部分是关于你的个人背景，请在适当的选项内打勾。.

1. 性别: 男性 女性;
2. 年龄: 30岁以下 30-39 40-49 50-59 60岁以上（包括60岁）;
3. 参展地点: 北京 上海 广州
4. 家庭年收入(元):
少于100,000 100,000-300,000 300,001-500,000
超过500,000;
5. 婚姻状况: 已婚 未婚
6. 教育背景:
本科 硕士 博士
其他, 请写明: _____.

第二部分：视觉刺激

您在多大程度上同意以下陈述？请在下方勾选您的选择：

问题	尺度						
	非常不同意	不同意	有些不同意	中立	有些同意	同意	非常同意
1.展览中的视觉元素（例如颜色、灯光、图像）是否吸引了您的注意？							
2.展览中的视觉效果是否帮助您理解了艺术作品的情感表达？							
3.展览中视觉元素的动态变化是否增强了您的注意力？							
4.展览中的视觉效果是否让您对展览内容有了更深入的理解？							
5.展览中的视觉设计是否唤起了您强烈的情感反应？							

第三部分：听觉刺激

您在多大程度上同意以下陈述？请在下方勾选您的选择：

问题	尺度						
	非常不同意	不同意	有些不同意	中立	有些同意	同意	非常同意
1.背景音乐是否让您更容易沉浸在展览的氛围中？							
2.声音效果的变化是否激发了您对展览内容的兴趣？							
3.声音元素是否增强了您在展览中的情感体验？							
4.听觉刺激是否让您对展览内容有了更深入的理解？							
5.展览中的音乐是否在您心中引发了情感共鸣？							

第四部分：信息熟悉

您在多大程度上同意以下陈述？请在下方勾选您的选择：

问题	尺度						
	非常不同意	不同意	有些不同意	中立	有些同意	同意	非常同意
1.您是否熟悉展览的主题和内容？							
2.您是否能够快速了解展览的背景信息？							
3.您对内容的熟悉程度是否让您更容易在情感上与艺术作品产生共鸣？							
4.熟悉的内容是否帮助您对展览有了更深入的理解？							
5.您对展览主题的认知背景是否丰富了您的整体体验？							

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第五部分：认知感知

您在多大程度上同意以下陈述？请在下方勾选您的选择：

问题	尺度						
	非常不同意	不同意	有些不同意	中立	有些同意	同意	非常同意
1.展览的内容是否激发了您的思考？							
2.提供的信息是否帮助您更好地了解展品的背景？							
3.您是否能够清晰理解展览所传达的概念？							
4.互动装置是否让您对展览的主题进行了更深入的思考？							
5.展览的内容是否增强了您对主题的理解？							

第六部分：情绪感知

您在多大程度上同意以下陈述？请在下方勾选您的选择：

问题	尺度						
	非常不同意	不同意	有些不同意	中立	有些同意	同意	非常同意
1.展览的内容是否触发了您的情感反应？							
2.互动装置是否让您感受到更强烈的情感共鸣？							
3.展览的情感表达是否让您与艺术作品形成了深层的情感联结？							
4.展览中的视觉和听觉元素是否在情感上与展览内容产生了共鸣？							
5.展览的互动设计是否加深了您的情感体验？							

第七部分：后续意图

您在多大程度上同意以下陈述？请在下方勾选您的选择：

问题	尺度						
	非常不同意	不同意	有些不同意	中立	有些同意	同意	非常同意
1.您是否愿意向他人推荐这次展览？							
2.您是否想再次参观这次展览？							
3.这次展览是否激发了您参加类似展览的兴趣？							
4.这次展览是否影响了您未来的艺术偏好？							
5.这次展览是否激发了您对其主题进行进一步探索的动力？							



Appendix C
Content Validity Rating Form

Content Validity Rating Form					
Objective: This form aims to assess the content validity of the pre-established quantitative research dimensions in the context of curatorial work. The rating scale ranges from 1 to 5, with 1 indicating “very irrelevant” and 5 indicating “very relevant.”					
Dimension	Description	Applicability	Importance	Representativeness	Comments and Suggestions
1. Visual Stimuli	Visual stimuli encompass the visual elements in the exhibition, such as color, layout, lighting, and images, aimed at capturing the audience’s attention and influencing their emotional and cognitive responses.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
2. Auditory	Auditory stimuli include	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	

Stimuli	background music, sound effects, and sound installations within the exhibition, aimed at enhancing the emotional experience and immersion of the audience through auditory elements.				
3. Information Familiarity	Information familiarity refers to the degree to which the audience is familiar with the exhibition's theme or content, influencing their depth of understanding and emotional resonance with the exhibition.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
4. Cognitive Perception	Cognitive perception refers to the audience's process of	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	

	<p>understanding, thinking, and analyzing during their visit to the exhibition, reflecting the extent to which the exhibition content stimulates intellectual engagement.</p>				
<p>5. Affective Perception</p>	<p>Affective perception refers to the emotional responses of the audience during their visit to the exhibition, including feelings of joy, surprise, or being moved, reflecting the emotional impact of the exhibition.</p>	<p>1 2 3 4 5</p>	<p>1 2 3 4 5</p>	<p>1 2 3 4 5</p>	
<p>6. Subsequent Intentions</p>	<p>Subsequent intentions include the audience's behavioral intentions after visiting the</p>	<p>1 2 3 4 5</p>	<p>1 2 3 4 5</p>	<p>1 2 3 4 5</p>	

	exhibition, such as the couldingness to recommend the exhibition, revisit it, or explore similar exhibitions.				
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Appendix D

Sample size calculation reference charts (Krejcie & Morgan, 1970)

TABLE 1

Table for Determining Sample Size from a Given Population

<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note.—*N* is population size.
S is sample size.

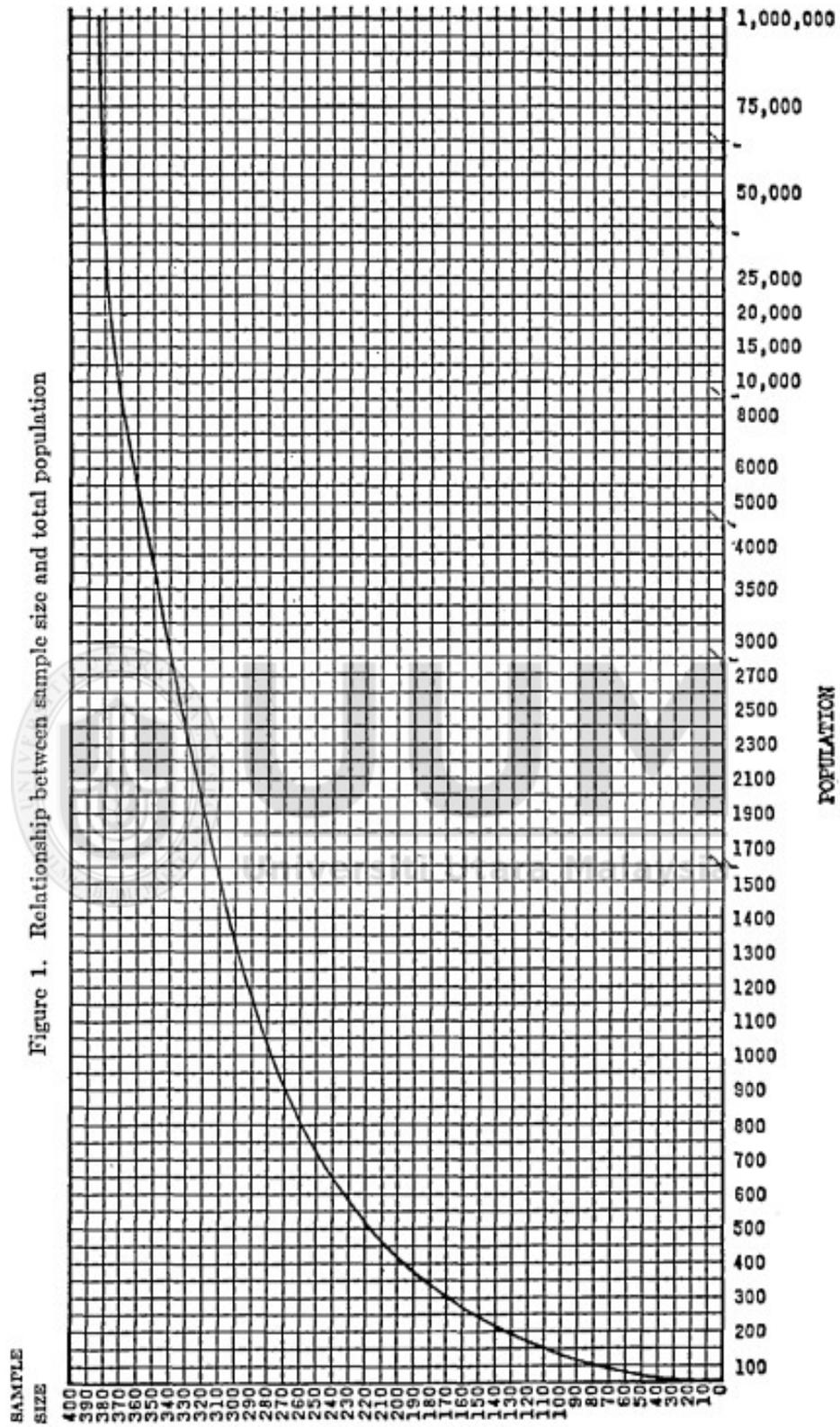
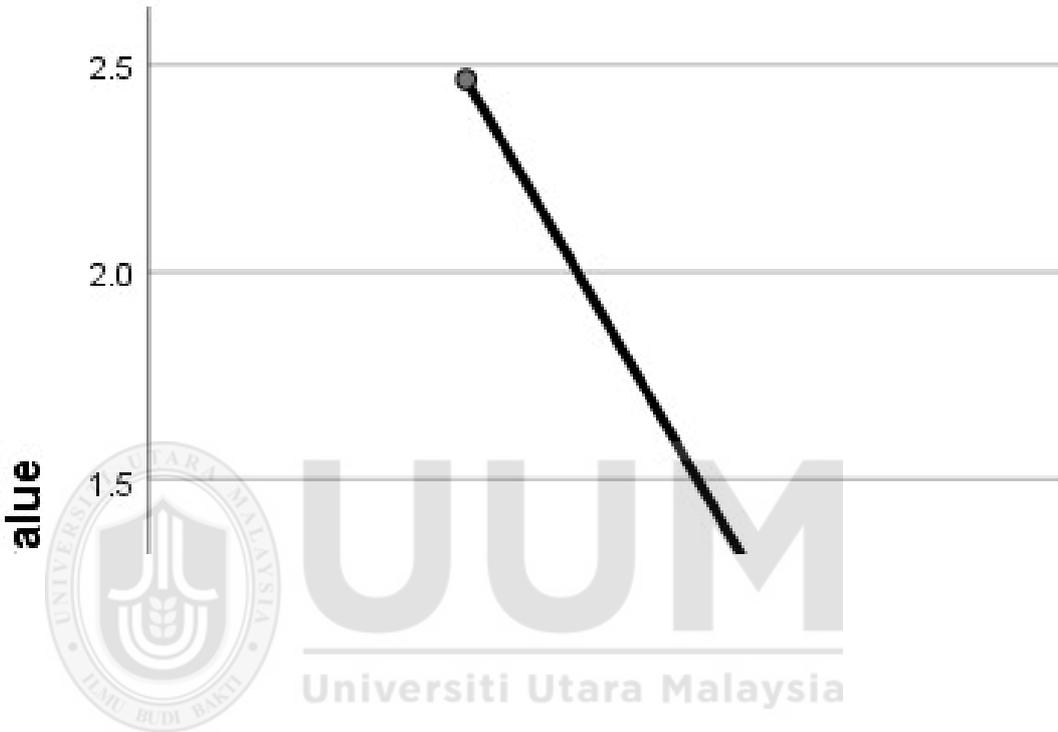


Figure 1. Relationship between sample size and total population

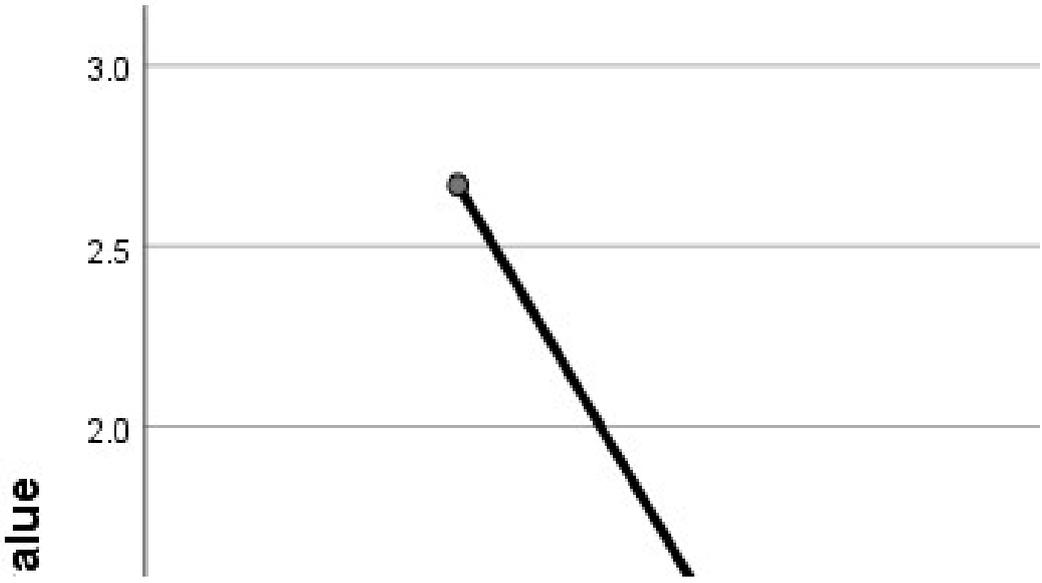
Appendix E

Scree Plots

1. Scree plot for Visual Stimulus:

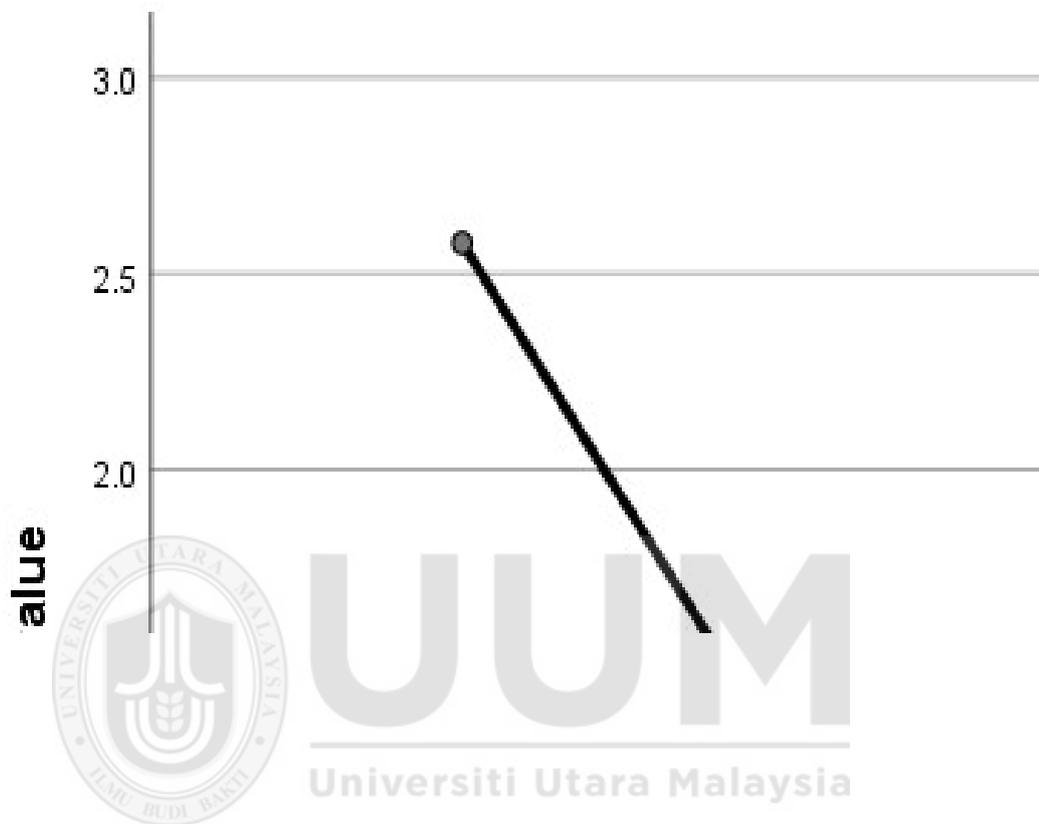


2. Scree plot for Auditory Stimulus

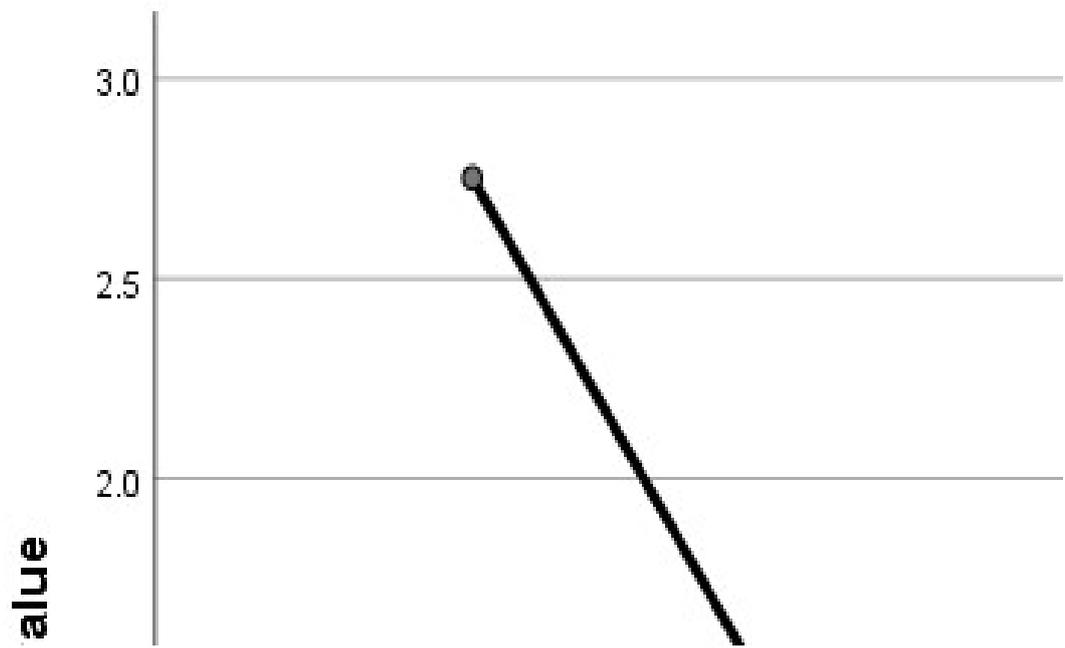




3. Scree plot for Information Familiarity

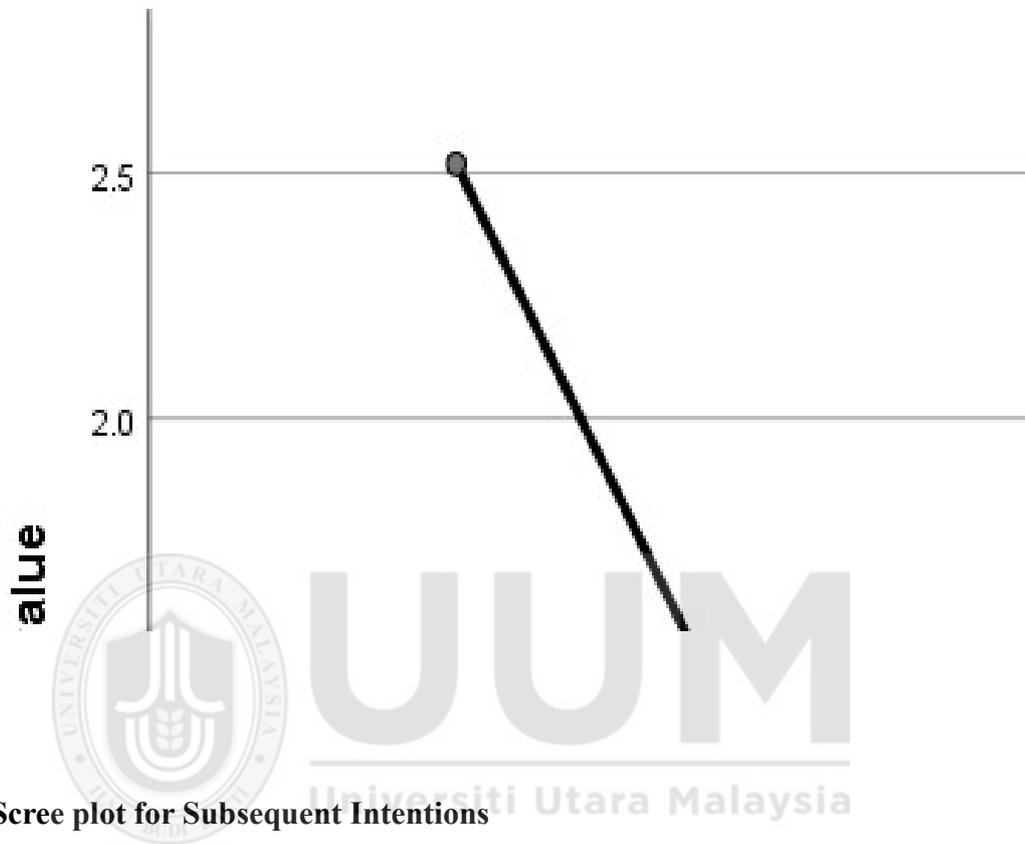


4. Scree plot for Cognitive Perception

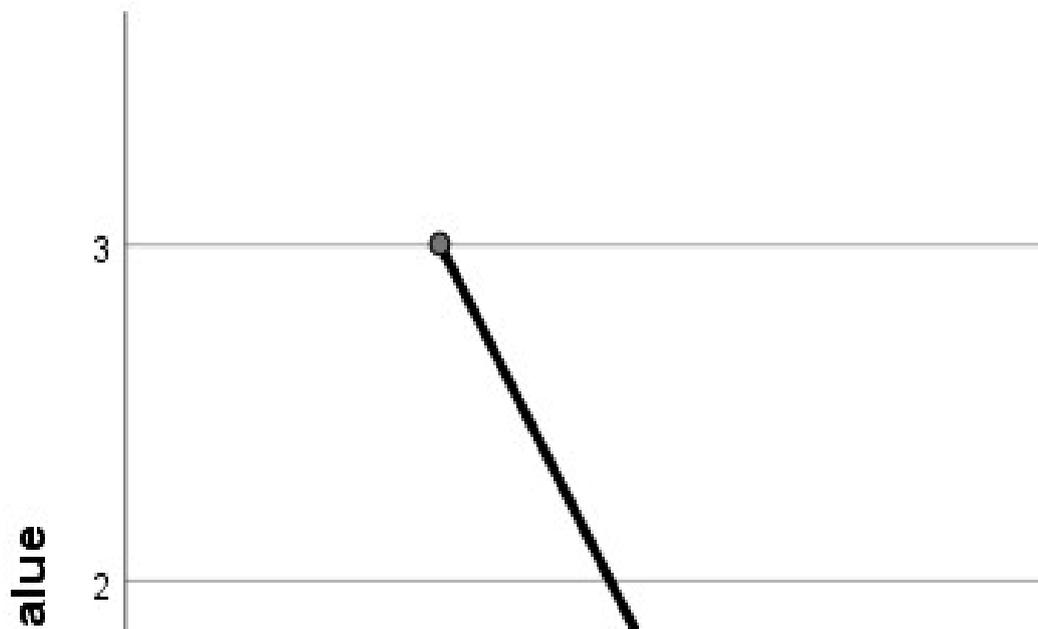


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5. Scree plot for Affective Perception



6. Scree plot for Subsequent Intentions



Appendix F

Linearity of Phenomenon Plots

