

ASSESSING THE VALUE OF MULTIPLE DESIGN DEGREES  
FOR LANDSCAPE ARCHITECTS:  
LEARNING FROM  
PROFESSIONALS IN NORTH TEXAS

by

ALICIA RIVERA

Presented to the Faculty of the Graduate School of  
The University of Texas at Arlington in Partial Fulfillment  
of the Requirements  
for the Degree of

MASTERS OF LANDSCAPE ARCHITECTURE

THE UNIVERSITY OF TEXAS AT ARLINGTON

May 2014

Copyright © by Alicia Rivera 2014

All Rights Reserved



## Acknowledgements

I would like to thank my thesis committee for their support and encouragement through the process on this thesis and on the CELA presentation in Baltimore, Maryland: Taner R. Ozdil, PhD, my thesis chair for his guidance throughout the semesters and on the research process; Pat Taylor, PhD, for his encouragement throughout the semesters and insight on this research process; and James Richard, Assistant Professor, for his encouragement and insight on this topic.

A special thanks to my classmates throughout the semesters who either directly or indirectly have influenced, encouraged, and or inspired me. I would also like to thank the faculty of the Program of Landscape Architecture as well as the staff of the School of Architecture for the support given toward the completion of this thesis.

I would especially like to thank my wonderful family: my aunts and uncles for their encouragements; my brothers for their support and encouragement in everything; my parents for their unconditional support and encouragement through all my whole academic efforts. An additional thanks to my mother who without all her help in everything I would have never been able to finish.

Last but not least of my thanks goes to my husband and my sons. I would like to thank my husband who stood by me throughout the whole process, and sacrificed a lot. I know my boys are too young right now but I would still like to thank them for being my motivation through all these years. I love you, Israel, Samuel, and Jacob. You guys motivated and encouraged me with your smiles, hugs, kisses, I love you's, and kicks.

April 17, 2014

Abstract

ASSESSING THE VALUE OF MULTIPLE DESIGN DEGREES  
FOR LANDSCAPE ARCHITECTS:  
LEARNING FROM  
PROFESSIONALS IN NORTH TEXAS

Alicia Rivera, B.S.

The University of Texas at Arlington, 2014

Supervising Professor: Taner R. Ozdil

Many of the early professionals in the landscape architecture profession had other previous design education (Tishler, 1989). For example, Hideo Sasaki and Lawrence Halprin had exposure to other academic fields, like environmental design and architecture (Mann, 2009). According to *ASLA: 2013 Survey of Graduating Students* data nearly one tenth of the landscape architecture graduate degree recipients had a previous degree in landscape architecture and about one fifth of them had a previous degree in another design or planning field (ASLA, 2013). It seems like acquiring another design and or planning degree before coming to landscape architecture is common among landscape architects. Yet very little is known about how much the exposure to multiple design degrees affects these landscape architecture professionals during their education and in their professional practice.

The purpose of this study is to assess the value of a multiple design degree background among landscape architecture professionals, particularly the ones practicing in North Texas. The research specifically concentrated on the review of educational background and experience, as well as the details of the daily professional practice of the

individuals who have degrees in architecture and or other relevant design fields in addition to landscape architecture. A few of the topics covered by this research are the similarities and differences among the degrees received, participants' comparison with colleagues of a single design degree, what value each degree brings to their daily professional practice, and the recommendations for future landscape architecture education, research, and practice.

The research follows qualitative methods to study the implications of a multiple design degree background among landscape architecture professionals. Open-ended interviews, using snowball technique to recruit participants, are conducted with North Texas professionals with multiple design degrees (Taylor and Bogdan, 1998). The data are later transcribed, coded, and organized into a database. The constant comparative method from the grounded theory was applied in the analysis and themes were derived (Glaser and Strauss, 1967).

In conclusion, not surprisingly, a majority of the participants felt positive about their background and its impacts on their professional practice. The common theme among the participants was how the multiple design degrees assisted them with easier communication skills among other professions when multi-disciplinary collaboration was needed in a project. Also, many of the participants' current position reflected their skills obtained in both design educations. Results also illustrated that they would have had minimal additional exposure to other fields, if they had only single design degree, suggesting that students would benefit from earlier exposure to other design fields in their education for greater dialogue and engagement with allied design fields.

## Table of Contents

Acknowledgements .....	iii
Abstract .....	iv
List of Illustrations .....	x
List of Tables .....	xi
Chapter 1 Introduction.....	1
1.1 Background of the Study .....	1
1.2 Purpose of Research .....	2
1.3 Research Questions .....	2
1.4 Definition of Terms.....	2
1.5 Methodology .....	4
1.6 Limits and Limitations .....	4
1.7 Significance .....	5
1.8 Summary .....	6
Chapter 2 Literature Review .....	7
2.1 Introduction .....	7
2.2 Landscape Architecture .....	7
2.3 Important Figures in Landscape Architecture.....	8
2.3.1 Calvert Vaux .....	8
2.3.2 Lawrence Halprin.....	9
2.3.3 Hideo Sasaki .....	9
2.3.4 Kevin Lynch .....	10
2.4 Related Design Professions .....	11
2.4.1 Architecture .....	11
2.4.2 Environmental Design .....	11

2.4.3 Urban Design.....	12
2.5 Landscape Architecture Education within the Last Decade .....	12
2.6 Landscape Architecture Profession-Synopsis of Today.....	13
2.7 ASLA Surveys.....	14
2.7.1 ASLA: 2010 Survey of Graduating Students .....	14
2.7.2 ASLA: 2011 Survey of Graduating Students .....	15
2.7.3 ASLA: 2012 Survey of Graduating Students .....	17
2.7.4 ASLA: 2013 Survey of Graduating Students .....	18
2.7.5 ASLA Gradating Students Surveys Summary.....	19
2.8 Summary .....	20
Chapter 3 Research Methods .....	21
3.1 Introduction .....	21
3.2 Research Design .....	21
3.2.1 Study Population .....	23
3.2.2 Study Location.....	23
3.2.3 Data Collection Method .....	23
3.2.3.1 Interview Method.....	24
3.2.3.2 Interview Questions .....	25
3.3 Data Analysis.....	26
3.4 Bias and Error.....	26
3.5 Summary .....	27
Chapter 4 Analysis and Findings .....	28
4.1 Introduction .....	28
4.2 Interviews.....	28
4.2.1 Respondent 1 .....	29

4.2.2 Respondent 2 .....	31
4.2.3 Respondent 3 .....	33
4.2.4 Respondent 4 .....	35
4.2.5 Respondent 5 .....	37
4.2.6 Respondent 6 .....	38
4.2.7 Respondent 7 .....	39
4.2.8 Respondent 8 .....	40
4.2.9 Respondent 9 .....	42
4.3 Overall Findings.....	44
4.3.1 Profile .....	44
4.3.2 Educational Background .....	46
4.3.3 Professional Practice.....	49
4.4 Common Themes .....	51
4.4.1 Themes of the Perceived Value .....	51
4.4.2 Themes of the Effect on Education .....	52
4.4.3 Themes of the Effect on Professional Practice .....	53
4.5 Summary .....	54
Chapter 5 Conclusion.....	55
5.1 Introduction.....	55
5.2 Perceived Value of Multiple Design Degrees .....	55
5.3 Effect on Education .....	56
5.4 Effect on the Professional Practice.....	57
5.5 Discussion on Relevance to Landscape Architecture .....	58
5.6 Suggestions for Future Research.....	59
Appendix A IRB Approval.....	60

Appendix B IRB Modification Approval .....	66
Appendix C Email Script for Participation Request.....	72
Appendix D In-person Script for Interviews.....	74
Appendix E Telephone Script for Interviews .....	76
References .....	79
Biographical Information .....	82

List of Illustrations

Figure 3-1 Research Design .....	22
Figure 4-1 Previous Degree Received by Participants .....	45
Figure 4-2 Location of First Degree Completed.....	45
Figure 4-3 Firm Typology.....	46

## List of Tables

Table 2-1 Student Background Data 2010.....	14
Table 2-2 Future Discipline to Study 2010.....	15
Table 2-3 Student Background Data 2011.....	15
Table 2-4 Future Discipline to Study 2011.....	16
Table 2-5 Student Background Data 2012.....	17
Table 2-6 Future Discipline to Study 2012.....	17
Table 2-7 Student Background Data 2013.....	18
Table 2-8 Future Discipline to Study 2013.....	19
Table 4-1 Skills Used From Previous Design Degree .....	47
Table 4-2 Themes of Skills from Previous Degree .....	47
Table 4-3 Similarities of Both Degrees Completed.....	48
Table 4-4 Differences of Both Degrees Completed .....	48
Table 4-5 Themes from Similarities and Differences between Completed Degrees .....	49
Table 4-6 Skills Used in Professional Practice .....	50
Table 4-7 Themes for Skills Applied to Professional Practice .....	50
Table 4-8 Themes of Perceived Value.....	51
Table 4-9 Themes of Effect on Education.....	52
Table 4-10 Themes of Effect on Professional Practice.....	53

## Chapter 1

### Introduction

#### 1.1 Background of the Study

There are many more students coming with different educational backgrounds into the landscape architecture field (ASLA, 2013). What seem to be a couple of recognizable critical figures in landscape architecture history who have multiple design discipline education and or experience become a significant percentage of graduating students in landscape architecture within the recent years. Indeed, roughly twenty-five percent of the graduates who responded to ASLA's Survey of Graduating Students between 2010 through 2013 had previous design degrees. The same surveys also suggest that there have been increases of interest in multiple design and or planning degrees and in the pursuit of additional degrees beyond a bachelor degree among landscape architecture graduates (ASLA 2010, 2011, 2012, 2013).

The profession of landscape architecture, both government and private practice, have started dealing with more complex projects within the recent years. As it is highlighted in Occupational Outlook Handbook by US Census about forty-six percent of landscape architecture recipients who work in offices were employed in the architectural, engineering, and related service industries (BLS, 2014). In these multi-disciplinary environments and complex projects, there lays a niche for individuals who have background in multiple design disciplines. Yet, there appears to be little to no up-to-date literature reviewing the value of the topic on multiple design degrees. The knowledge regarding the value of multiple design degrees on education and professional practice seems to be anecdotally mentioned and not pursued as part of a rigorous research study.

## 1.2 Purpose of Research

This study examines the education, skills, and professional experience of landscape architecture professionals to assess the value of multiple design degrees with reference to the graduate education and the professional practice. The research specifically focuses on landscape professionals who have a previous design degree before acquiring a graduate degree in Landscape Architecture in North Texas. The degrees such as architecture, environmental design, urban design, and even landscape architecture are considered as part of the makeup of multiple design degree background in this research. Furthermore, the variations in educational institutions and geographic locations, where the participants come from, are accepted as the inherent qualities of such research.

## 1.3 Research Questions

The major questions raised in this thesis are:

1. Is there value to having multiple design degrees in landscape architecture?
2. What is the effect of a design degree during graduate education?
3. What is the effect of having multiple design degrees when practicing landscape architecture?

## 1.4 Definition of Terms

Architecture: It is the art and science of designing and building structures or groups of structures, in keeping with aesthetic and functional criteria (Burden, 2002).

Design: In architecture, it is to compose a plan for a building; the architectural concept of a building as represented by plans, elevations, renderings, and other drawings; any visual concept of a constructed object, as of a work of art (Burden, 2002).

In landscape architecture, it is the creative laying-out and planning of outdoor space for the greatest possible amount of harmony, utility, and beauty (Morrow, 1987).

Environmental Design: It addresses the impact of the built environment on individuals and the natural world and creates a wide range of interventions informed by human and environmental systems (National Academy of Environmental Design, 2014).

Landscape Architecture: It is the design of outdoor and public spaces in collaboration with multi-disciplinary fields, more specifically between architecture and landscape architecture (Twombly, 2010).

Multiple Design Degrees: In this study, multiple design degrees implies a graduate degree in landscape architecture and an undergraduate degree in another related design degree, like architecture, environmental design, or urban design, or even in landscape architecture.

Multi-disciplinary: In this study, multi-disciplinary implies the involvement of several academic disciplines or professions, specifically landscape architecture and other related design fields.

Multi-disciplinary Firm: In this study, multi-disciplinary firm implies a firm that houses different design departments in the company along with the landscape architecture department.

North Texas: It typically refers to sixteen county area that covers twelve county Dallas-Arlington-Fort Worth Metropolitan Statistical Area. Major populated cities are Dallas, Fort Worth, Arlington, and Denton (VNT, 2009).

Planning: In this study, planning implies the profession, also called urban planning or city and regional planning, that involves not just design but also the technical and political processes.

Profession: A distinct group of individuals having a unique combination of formal education, training, knowledge and skill (Sharky, 1994, pp. 18 - 19).

Urban Planning: It is technical and political processes concerned with research and analysis, strategic thinking, architecture, urban design, public consultation, policy recommendations, implementations and management (Taylor, 2007).

### 1.5 Methodology

The research utilized qualitative methodology. Data is collected through open-ended interviews of professionals, the participants, with multiple design degrees including landscape architecture. The snowball sampling was applied to access the participants in the study, so one participant referred another, for a total nine participants (Taylor and Bogdan, 1998). During the interviews, tape-recordings were taken to collect the data in the field. The tape-recordings were later transcribed, coded, and organized on a database. The constant comparative method from the grounded theory was applied in the analysis and themes were derived (Glaser and Strauss, 1967). Chapter three of this thesis reviews methodology in greater detail.

### 1.6 Limits and Limitations

The study had its limits specifically the location of the participants and the time allocated for the research. The participants with multiple design degrees were only selected if practicing in the North Texas area. Although limiting participants to such specific geography was not a critical dimension of the research the assumption was to have an immediate and direct access to those individuals to promote stronger interview content. Furthermore, such geographic concentration was assumed to help with the time frame of a thesis research.

The other limitations to this study derive from the participant selection and the method used for data collection. The participants were only selected if they had multiple design degrees and practicing in North Texas. There were no individuals interviewed with an undergraduate degree in unrelated field and the participants had to hold a master's degree in landscape architecture. All the individuals interviewed are entry-level in the landscape architecture profession. There are obvious limitations to open-ended interviews because many things can be lost in communication in either direction from the researcher to the interviewee (Taylor and Bogdan, 1998).

### 1.7 Significance

The significance of this research is to understand the professional and educational implications of such background for the field of landscape architecture. The research provides better understanding of professional practice among landscape architecture practitioners with multiple design degree backgrounds. Such understanding is likely to have profound implications to day to day practice of multi-disciplinary firms.

This research study could also have potential value for landscape architecture education. Understanding potential strengths and weakness of the educational experience of individuals with multiple design degrees may potentially produce lessons for landscape curricula to promote multi-disciplinary activities. The educational institutions could also benefit from such information to promote better recruitment and placement strategies to enhance the depth of the knowledge in a given educational field.

## 1.8 Summary

This chapter contains an overview of the approach to the development of this thesis. Chapter two of this thesis focuses literature review of landscape architecture, important figures in landscape architecture history, other related design disciplines, landscape education within the last decade, landscape architecture profession, and surveys from ASLA. Chapter three focuses on methodology. The preliminary research helped to define the data necessary to be retrieved in the interviews for detail analyses. Chapter four goes over the analysis of interviews and findings of the research. The conclusion chapter recaps the research questions and produces discussions about the value of multiple design degrees. The thesis concludes with further discussion on the relevance of this study to landscape architecture, and the summary of future research directions.

## Chapter 2

### Literature Review

#### 2.1 Introduction

The literature review consisted of landscape architectural history, the background into some recognized critical figures in landscape architecture, landscape architecture education within the last decade, landscape architecture profession, an introduction of some of the other related design professions, and some ASLA surveys. Landscape architecture education was also reviewed in the context of landscape architecture history. The review of critical figures, in landscape architecture history with multiple design degrees, or multiple design experiences, lead to further understanding of multi-disciplinary demands in landscape architecture field.

#### 2.2 Landscape Architecture

Landscape architecture as a field and area of practice was established in the late mid-1850s by Fredrick Law Olmstead. The profession was started by Fredrick Law Olmstead who was educated in an allied field but had seen the need to have a profession responsible of “shaping the American city by designing public parks and park systems to meet a wide range of recreational needs” (Tishler, 1989, p.38). Landscape architecture is a relatively new field but it matured rapidly to cover topics beyond its initial stand as it was suggested by Fredrick Law Olmstead. The literature review of landscape architecture education is limited but resourceful in its observation on trends in how the education of landscape architecture has matured.

As the demands in the profession have changed over the years, educational trends have developed to prepare students, even though at times slower than others. "These trends have had far-reaching impact on educational emphases at various times and at various schools" (Robinette, 1973, p. xiii). For example, Fredrick Law Olmstead's

social concerns were not realized in the early educational programs. Even by the 1990s, there were limits on landscape architects to only design estates and be garden planners, and most landscape architects accepted those limitations (Robinette, 1973). Throughout the educational history, the schools have either prepared students for the current or the future job opportunities, since at time it has either lagged behind or forged ahead of the landscape architecture profession. From Robinette's observation in the development of the landscape architecture education throughout history, emerges the concept for this research as to try to recognize possible opportunities of current and future employment opportunities for individuals with multiple design degrees or even the development of multi-disciplinary exposure in landscape architecture graduate education.

### 2.3 Important Figures in Landscape Architecture

The review of multi-disciplinary exposure of landscape architecture throughout the history lead to the background review of a couple of critical figures. The review of the bio's, education and practices of these individuals briefly give the researcher a snapshot in time concerning the impact of such multi-disciplinary background. These critical figures Calvert Vaux, Lawrence Halprin, Hideo Sasaki, and Kevin Lynch, have either studied or practiced other design professions. The following section gives a brief summary of the background of selected professionals who had directly or indirectly effected landscape architecture.

#### 2.3.1 *Calvert Vaux*

Calvert Vaux, Fredrick Law Olmstead's professional partner, an architect and landscape designer, assisted Olmstead in the design of two famous parks: Central Park and Prospect Park in New York (Mann, 1993; Tishler, 1989). Calvert Vaux was an architect in the late-1800s who worked with Fredrick Law Olmstead (Mann, 2009). Vaux assisted Olmstead in the design of Central Park and Prospect Park in New York (Tishler,

1989). Vaux and Olmstead had a joint firm for a couple of years in which they took on multi-disciplinary projects (Tishler, 1989).

Vaux is probably one of the earliest professionals in the field who utilize knowledge gained from a related design field to use in landscape architecture. The brief review of Calvert Vaux's background illustrates how the profession started with individuals who had related design education and experience, and applied it to landscape architecture.

### *2.3.2 Lawrence Halprin*

Lawrence Halprin, a landscape architect, designer, and teacher studied with classmates like I.M. Pei, architect; and assisted in designing projects: a few of them being, Lovejoy Plaza in Portland, Oregon and Wallace W. Gill Residence in Glencoe, Illinois (Mann, 1993). Halprin studied architecture and landscape architecture in the mid-1900s (Walker and Simo, 1996). Halprin took part in the formation of 'Take Part' process, which involved the community in the design process. Among the few communities where this process took place, Chicago was one of these communities (Walker and Simo, 1996; Hirsch, 2012). The brief review of Lawrence Halprin's background illustrates how a professional with multi-discipline background made the effort to develop the design process in creating a program where many others would be involved in the design process.

### *2.3.3 Hideo Sasaki*

Hideo Sasaki a landscape architect, with two design degrees in landscape architecture, was well known for his interdisciplinary planning, history, culture, environment, and social aspects (Mann, 1993). Sasaki studied landscape architecture and became an influential landscape architect and educator in the mid-1900s (Walker and Simo, 1996). He taught landscape architecture education and assisted in the design

of many projects: such as, Constitution Plaza in Hartford, Connecticut and Copley Square in Boston, Massachusetts (Mann, 1993). Sasaki ran multidiscipline design studios at Harvard in the 1950s (Walker and Simo, 1996). “Both in the studio and in practice, Sasaki realized his dream of the integrated team” (Walker and Simo, 1996, p.215). The brief review of Hideo Sasaki's background illustrates how a professional with no multiple design discipline background saw the importance of multi-disciplinary projects in landscape architecture education and in the professional practice of landscape architecture.

#### 2.3.4 Kevin Lynch

Kevin Lynch studied under Frank Lloyd Wright in the 1940s, and received a Bachelor's degree in city planning in 1947. Lynch was an urban planner, a professor, and an author. Kevin Lynch was also a guest lecturer particularly in Hideo Sasaki's classes (Walker and Simo, 1996). One of his most influential books in the design world was *The Image of the City (1980)*. *The Image of the City (1980)* is a book typically used not just in landscape architecture but also by architects and planners. This book was the result of a research study on how individuals observe the urban landscape (Lynch, 1980). Although, Lynch's professional work was not so much in landscape architecture, his design exploration, ideas, and concepts become instrumental in landscape architecture education and practice. The brief review of Kevin Lynch's background begins to illustrate the similarities in the issues that are studied as well as the connections and implications of other related design disciplines on landscape architecture.

## 2.4 Related Design Professions

Over the history of landscape architecture field many individuals with different educational background pursued a secondary education in landscape architecture. The example includes but not limited to biology, history, environmental sciences, arts, engineering, sociology, journalism, and literature to name a few. Although most of these expertise have components that complements to landscape architecture profession and education, the design and planning fields that deals with built environment seem to produce a more direct relation and overlap, thus require further exploration. Therefore, there was some concentration on the design profession studied in the literature review. There were also variations in the definition of design professions from one resource to another.

### 2.4.1 *Architecture*

'Practice of architecture' means a service or creative work applying the art and science of developing design concepts, planning for functional relationships and intended uses, and establishing the form, appearance, aesthetics, and construction details for the construction, enlargement, or alteration of a building or environs intended for human use or occupancy, the proper application of which requires education, training, and experience in those matters' (AIA, 2012; Twombly, 2010). The landscape architecture definition relates to 'appearance, aesthetics, and construction details for the construction' and 'the art and science,' from this definition

### 2.4.2 *Environmental Design*

"Environmental design comprises architects, planners, landscape architects, interior designers, preservationists, building technology specialists, and researchers from a wide range of disciplines. Their shared body of knowledge and professional skills affect communities, landscapes, buildings, products, and the individuals who occupy and use

them” (NAED, 2014). This definition illustrates that landscape architects are directly captured in the definition of environmental design as one of the core fields influencing this discipline.

### *2.4.3 Urban Design*

“The work of urban design exists at the intersection of architecture, landscape architecture, and city planning, and it is: a creative process; a collaborative, interdisciplinary process and a place-making process that involves creating three-dimensional urban forms and space, which enhance the experience of towns and cities” (Wall and Waterman, 2010, p.17). One of the ambiguities about urban design thus opens opportunities for further dialogue among design disciplines is that it is not a field professionally recognized. In other words, practicing urban design does not require licensure nor a title act that protects this field of urban design. So in most instances the practices and education in this mostly occurs within the realm of other related design and planning disciplines. The landscape architecture definition, in this case, relates to ‘place-making’ and ‘urban forms and space,’ from this definition.

## 2.5 Landscape Architecture Education within the Last Decade

Currently, LAAB accredits at least one academic program at sixty-nine institutions in the United States. There are fifty-one accredited MLA programs and forty-four accredited undergraduate programs. In 1990, there were thirty-seven undergraduate programs and twenty-one MLA programs (LAAB, 2014).

America’s Best Architecture and Design Schools ranks design schools yearly and since the 2011 report there have been two major emerging concerns for ranking all design schools (LAAB, 2014):

- Sustainability/climate change
- Maintaining design quality

The landscape architecture academic programs have grown within the last decade to meet the demand for more landscape architecture professionals needed in the professional practice. As mentioned in the following section, many of these landscape architecture graduates have gone to work into other related service industries apart from just landscape architecture firms. Additionally, the academic programs have been ranked, within the last four years, in reference to the concentration of their curricula in sustainability and design quality. The America's Best Architecture and Design Schools rank other design schools with the same parameters and these could be the channels to relate these disciplines in multi-disciplinary projects within the design academic programs.

#### 2.6 Landscape Architecture Profession-Synopsis of Today

Occupational Outlook Handbook by US Labor Statistics evaluates different professional fields into five categories, duties, work environment, education, important qualities, and job prospects (BLS, 2014). In the following summarizes the landscape architecture profession of today:

- Duties: Consult with clients, engineers, and building architects to understand a project (BLS, 2014).
- Work environment: Landscape architects held about 20,100 jobs in 2012, of which 46% were employed in the architectural, engineering, and related services industry (BLS, 2014).
- Education: Courses typically include surveying, landscape design and construction, landscape ecology, site design and urban and regional planning (BLS, 2014).

- Important qualities: Landscape architects share their ideas, both orally and in writing, with clients, other architects, and workers who help prepare drawings (communication skills) (BLS, 2014).
- Job prospects: Job opportunities will be best for landscape architects who have strong technical and communication skills (BLS, 2014).

## 2.7 ASLA Surveys

ASLA, American Society of Landscape Architects, perform a survey to graduating students every year since 1997 (ASLA, 2013). The literature review here covers the results of these secondary data collected by ASLA in order to better understand educational attainment and future directions of graduate students. This data sheds light to the point that how landscape architecture students have an exposure to other design disciplines within the recent years as well as their future directions in pursuing design degrees in allied fields. The following sections briefly summarize the survey data from 2010 to 2013:

### 2.7.1 ASLA: 2010 Survey of Graduating Students

Table 2-1 Student Background Data 2010

	Landscape Architecture	Other Design/Planning Fields	All Other Fields	Total Respondents
Number of Respondents	7	8	63	78

Table 2-1 shows that in 2010, about nineteen percent of landscape architecture graduate recipients had a previous design degree, with about fifty percent of the degrees being in related design disciplines and not landscape architecture (ASLA, 2010).

Furthermore, in the *ASLA: 2010 Survey of Graduating Students* the respondents were asked about their future plans to pursue another degree or additional education, and if so then what type of degree and in what field. About thirty percent of the

respondents said they would either be pursue a degree right away or after some professional experience. Of those thirty percent, about two percent said a Bachelor, about sixty-eight percent said Masters, about twenty-six percent said a PhD, and about three percent said other. Additionally, the respondents were asked what discipline the degree will be in and they responded as follows in Table 2-2:

Table 2-2 Future Discipline to Study 2010

	Landscape Architecture	Other Design Fields	Other Planning Fields	Unrelated Field	Total Respondents
Number of Respondents	22	16	16	30	84

Table 2-2 illustrates the data from the *ASLA: 2010 Survey of Graduating Students* on what discipline is intended to be pursued for the next degree. This table shows that about twenty-six percent of the respondents would be pursue a degree in landscape architecture or something directly related to landscape architecture. Additionally, it shows that about thirty-eight percent would pursue a degree in a related design or planning field.

#### 2.7.2 ASLA: 2011 Survey of Graduating Students

Table 2-3 Student Background Data 2011

	Landscape Architecture	Other Design/Planning Fields	All Other Fields	Total Respondents
Number of Respondents	12	24	65	101

Table 2-2 shows that at least thirty-five percent of landscape architecture graduate recipients had a previous design degree, with about sixty-seven percent of the degrees being in related design disciplines and not landscape architecture (ASLA, 2011).

Furthermore, in the *ASLA: 2011 Survey of Graduating Students* the respondents were asked about their future plans to pursue another degree or additional education, and if so then what type of degree and in what field. About twenty-six percent of the respondents said they would either be pursue a degree right away or after some professional experience. Of those twenty-six percent, about three percent said a Bachelor, about seventy percent said Masters, about twenty-one percent said a PhD, and about one percent said other (ASLA, 2011). Additionally, the respondents were asked what discipline the degree will be in and they responded as follows in Table 2-4:

Table 2-4 Future Discipline to Study 2011

	Landscape Architecture	Other Design Fields	Other Planning Fields	Unrelated Field	Total Respondents
Number of Respondents	27	26	17	54	124

Table 2-4 illustrates the data from the *ASLA: 2011 Survey of Graduating Students* on what discipline is intended to be pursued for the next degree. This table shows that about twenty-two percent of the respondents would be pursue a degree in landscape architecture or something directly related to landscape architecture. Additionally, it shows that about thirty-five percent would pursue a degree in a related design or planning field (ASLA, 2011).

2.7.3 ASLA: 2012 Survey of Graduating Students

Table 2-5 Student Background Data 2012

	Landscape Architecture	Other Design/Planning Fields	All Other Fields	Total Respondents
Number of Respondents	10	24	77	111

Table 2-3 shows that in 2012, at least thirty percent of landscape architecture graduate recipients had a previous design degree, with about seventy percent of the degrees being in related design disciplines and not landscape architecture (ASLA, 2012).

Furthermore, in the *ASLA: 2012 Survey of Graduating Students* the respondents were asked about their future plans to pursue another degree or additional education, and if so then what type of degree and in what field. About thirty-three percent of the respondents said they would either be pursue a degree right away or after some professional experience. Of those thirty-three percent, about two percent said a Bachelor, about sixty-five percent said Masters, about twenty-three percent said a PhD, and about three percent said other (ASLA, 2012). Additionally, the respondents were asked what discipline the degree will be in and they responded as follows in Table 2-6:

Table 2-6 Future Discipline to Study 2012

	Landscape Architecture	Other Design Fields	Other Planning Fields	Unrelated Field	Total Respondents
Number of Respondents	39	35	28	55	157

Table 2-6 illustrates the data from the *ASLA: 2012 Survey of Graduating Students* on what discipline is intended to be pursued for the next degree. This table shows that about twenty-five percent of the respondents would be pursue a degree in landscape architecture or something directly related to landscape architecture.

Additionally, it shows that about forty percent would pursue a degree in a related design or planning field (ASLA, 2012).

2.7.4 ASLA: 2013 Survey of Graduating Students

Table 2-7 Student Background Data 2013

	Landscape Architecture	Other Design/Planning Fields	All Other Fields	Total Respondents
Number of Respondents	11	22	73	106

Table 2-7 shows that in 2013, at least thirty percent of landscape architecture graduate recipients had a previous design degree, with about sixty-seven percent of the degrees being in related design disciplines and not landscape architecture (ASLA, 2013).

Furthermore, in the *ASLA: 2013 Survey of Graduating Students* the respondents were asked about their future plans to pursue another degree or additional education, and if so then what type of degree and in what field. About thirty-two percent of the respondents said they would either be pursue a degree right away or after some professional experience. Of those thirty-two percent, about one percent said a Bachelor, about eighty-one percent said Masters, about twenty-five percent said a PhD, and about one percent said other (ASLA, 2013). Additionally, the respondents were asked what discipline the degree will be in and they respondent as follows in Table 2-8:

Table 2-8 Future Discipline to Study 2013

	Landscape Architecture	Other Design Fields	Other Planning Fields	Unrelated Field	Total Respondents
Number of Respondents	37	42	30	51	160

Table 2-8 illustrates the data from the *ASLA: 2013 Survey of Graduating Students* on what discipline is intended to be pursued for the next degree. This table shows that about twenty-three percent of the respondents would be pursue a degree in landscape architecture or something directly related to landscape architecture. Additionally, it shows that about forty-five percent would pursue a degree in a related design or planning field (ASLA, 2013).

#### 2.7.5 ASLA Gradating Students Surveys Summary

Overall, the above sections show that there have been increases of interest in multiple design and or planning degrees and in the pursuit of additional degrees beyond a bachelor degree among landscape architecture graduates (ASLA, 2010, 2011, 2012, 2013). Also, the tables from the above sections show that there is potential for graduate schools to recruit more students into graduate schools. They also show that there is potential for the graduate schools to not only recruit students graduating out of landscape architecture programs, but also from other design and planning fields. This thesis and further research could give the graduate schools some tools for enticing students from other design fields.

## 2.8 Summary

This thesis is to assess the value of a multiple design education in the profession of landscape architecture. Although the scholarly literature on the topic was significantly less than one would assume is also realized that the implicit references to the topic exist in varying sources (see such as ASLA surveys). Moreover, the review of critical figures in history and the related design fields intersecting with the profession of landscape architecture create a reference point for past and current implications of multiple design disciplines in landscape architecture as a profession. Even though there is limited literature about the multi-disciplinary exposure in landscape architecture, it is realized throughout the research that understanding the questions raised in the beginning of research is a critical dimension of the profession, its history, and its education.

## Chapter 3

### Research Methods

#### 3.1 Introduction

This thesis follows qualitative research methods, and utilizes interviews as the primary data collection method. The focus of the study is on professionals with multiple design degrees in landscape architecture practicing in North Texas. The grounded theory approach is adopted to analyze and assess the value of multiple design background in landscape architecture (Glaser and Strauss, 1967). Overall the order of the process was interview landscape professionals, currently in practice in North Texas, with multiple design degrees and analyze the data with constant comparative method to develop themes to evaluate the value of multiple design degrees (Glaser and Strauss, 1967). The following section goes over the methodology and procedures adopted in this research in greater detail.

#### 3.2 Research Design

The research began with the review of background information on famous landscape architects in the history of landscape architecture, after the development of the research objective and the questions. Thereafter, the formulation of the research procedures of assessing the value of a multiple design degree background outline. Then, the criteria for the participant selection tailored to individuals with multiple design degrees practicing in North Texas. Later, the research questions were formed to include whether there was value to acquire multiple design degrees, and if so what the effects were during graduate education and professional practice. Details were formulated on the qualitative approach to the research to have open-end in-depth interviews and the constant comparative method for the data analysis (Taylor and Bogdan, 1998). The interview questions (see interview script in the Appendix D) were created and revised

before seeking IRB approval to begin the data collection. In this research study, the IRB approval was performed twice since the title and other minor modifications were changed from dual design degree to multiple design degree (see the IRB approvals in the Appendix A & B).

The process continued with the interviews of landscape professionals practicing in North Texas with multiple design degrees. The participants were accessed by referrals from one to another, snowball effect, or through public information from their company websites. During the data collection, interviews were transcribed, coded, and a preliminary data analysis of themes was developed at the same time. After the continued back and forth between data collection and data analysis, then a conclusion was reached and finalized with the write up of the findings. All of this is diagrammed in Figure 3-1:



Figure 3-1 Research Design

### *3.2.1 Study Population*

Due to the research objective, the study specifically acquired population that have a Masters of Landscape Architecture and a previous degree in a related field, like architecture, environmental design, urban design, or even another landscape architecture degree.

Participants were selected based on their previous design education, with two or more design degrees including a Masters of Landscape Architecture. The participants were accessed through the snowball technique (Glaser and Strauss, 1967), where one participant refereed another potential participant practicing in North Texas. This access approach helped to create a comfortable environment for the participants. Yet, some participants were located through their company website.

### *3.2.2 Study Location*

The selected study location for this research was the North Texas region. In the selection of the location, many variables where taken into account. The major variables were the time constraint for the data collection and the travel distance for in-person interviews. Another variable was the consideration that the region had a lot of potential for its size and multiple firms within it, yet there was limited public information on individuals and limited individuals who met the participant selection criteria.

### *3.2.3 Data Collection Method*

This thesis consists of qualitative research with interviews and the grounded theory analysis to assess the value of multiple design degrees (Taylor and Bogdan, 1998). Although other data collection methods such as surveys reviewed in earlier in the process it is realized that in-depth understanding of the issue and variations in background require interview as the technique to be adopted. Since the interviews were only tape recorded, the researcher was not side tracked with field notes and it kept a

smooth flow during the interview and increased the richness of the data collection. A Sony digital voice recorder was used to tape record the interviews. The recordings were typed up with concentration on themes developed through the constant analysis of the themes in databases.

Since the research consisted of interviews, then it was necessary to receive approval from The University of Texas at Arlington's Institutional Review Board (IRB). The interview questions were formulated and revised for submittal to IRB and receive approval to begin data collection (see Appendix D). The recruitment process was also decided for the IRB process and an email recruitment letter was formulated (see Appendix C). After the first submission, IRB approved the research (see Appendix A) and the researcher started the recruitment process shortly after. Later the researcher noticed the conflict with specific wording in proposal and submitted a modification to IRB to change 'dual design degrees' to 'multiple design degrees' in the entire paperwork and later the approval was received (see Appendix B).

#### 3.2.3.1 Interview Method

The technique used was open-ended interviews with the landscape architecture professionals. The interviews were conducted in person or over the phone (see Appendix D & E). The structure of the questions were to ask them about their educational background, how their first design degree related to their Masters of Landscape Architecture education, to compare and contrast both of the degrees completed, and what is useful from their design degrees in their current position. The openness of the questions allowed for flexibility in the direction of the interviews and the research flowed.

### 3.2.3.2 Interview Questions

The following questions were prepared in order to understand the value and effect of multiple design degree background for landscape architecture professionals. The questions were simply arranged into three parts. Part one, concentrates on the quick background of the participant. Part two, concentrates on the detailed research questions such as the effects and impact of multiple design degrees as well as similarities and differences among them both in education and profession. The researcher also prepared set of follow-up questions to be used in the case of not gaining in-depth responses to part two questions.

#### Part I. Profile

1. What degrees have you received?
2. What college and university did you receive these degrees from?
3. How long have you been in the professional practice?
4. What is your job title?

#### Part II. In-depth Interview Questions

1. What knowledge did you gain in your other design degree that affected your landscape architecture education?
2. What similarities did you experience between each design degree while in school?
3. What are the major differences between each design degree you have completed?
4. Did your multiple design education affect your qualifications (knowledge and skills) for your current position?
5. Do you have anything else to add?

Optional (follow-up) Questions:

1. What technical skills did you acquire in your multiple design degree background that have become instrumental for your professional practice?
2. Does your multiple design education affect how you communicate with other design disciplines?
3. Does your multiple design education affect your role in multi-discipline projects?
4. Others depending on emergent responses from participants.

### 3.3 Data Analysis

The data was transcribed, coded, and organized into a database using simple MS Office Suite products. As mentioned in Taylor and Bogdan (1998), “in qualitative research data collection and analysis go hand in hand” (p.141). Therefore, the constant comparative method from the grounded theory was applied in the analysis and themes were derived (Glaser and Strauss, 1967). In the application of the constant comparative method in the analysis, the researcher analyzed the data after each interview to develop and redevelop emerging themes. Additionally, the themes were evaluated and re-evaluated after each interview was coded and recoded. The researcher read and reread the data collected to look for those themes, even after having completed the data collection process. Several categories were developed to organize the data and later subcategorized to develop themes from each category.

### 3.4 Bias and Error

There were unintentional biases and errors in the process of the research from the researcher and the participants. The researcher has a background in architecture and landscape architecture. She has a Bachelor of Science in Architecture and has been working on a Master of Landscape Architecture. Although this will be highlighted further in the following chapter, snowball technique produced respondents mostly from the same

institution with the researcher. Indeed, eight out of nine of the respondents completed their Masters in Landscape Architecture at The University of Texas at Arlington. Although the research produce stronger understanding of UT Arlington graduates who are practicing in North Texas, the study became a limited understanding of a broader population with similar qualities. On a separate note, it should also be mentioned her that there could have been errors on the miscommunication of the interview questions, the transcriptions of interviews, and the interpretation of the transcriptions.

### 3.5 Summary

This chapter outlined the framework for the qualitative methods adopted in this thesis. It outlined the procedures such as population location selection, research design, data collection, and analysis, as well as potential biases and errors. The following chapter covers the analysis of the interview results and reports on common findings.

## Chapter 4

### Analysis and Findings

#### 4.1 Introduction

In-depth interviews were conducted with landscape architecture professionals in North Texas to gather their personal perception on the value and effect of their multiple design degrees on their graduate education and professional practice. In-person or phone interviews were conducted with the participants following the techniques described by Taylor and Bogdan (1998) in *Introduction to Qualitative Research Methods: A Guidebook and Resource*. The following sections of this chapter detail the analysis and the findings of the interviews.

#### 4.2 Interviews

Researcher located fifteen possible participants following the snowball technique. Yet, there was only contact information for thirteen of them within the parameters the researcher set in the IRB process for recruitment. Out of thirteen contacted and made request (see recruitment letter in the Appendix C) only nine respondents gave positive response for the interview.

Overall, eight of the respondents participated in this research received their Masters of Landscape Architecture at The University of Texas at Arlington. And seven out of the eight participants completed their first degree at an international institution. Therefore, certain similarities were captured in the responses when related to the educational background questions. This is also noted as one of the limitations of snowball technique in recruiting participants in the research.

It is also realized and reviewed in the following section that two of the respondents have under two years of experience in professional practice. Although professional experiences of the respondents seem to be relatively fresh, there were

diverse set of responses to the professional practice questions since the participants work at different types of firms. Additionally, eight out of the nine respondents had only entry level professional experience. The following section briefly summarizes each interview and later reviews them collectively to capture common themes to research questions.

#### *4.2.1 Respondent 1*

*Background:* This respondent received a Bachelor's of Science in Architecture from an institution in the state of Texas and the Masters of Landscape Architecture from The University of Texas at Arlington. The respondent had a year experience in the architecture field and a year experience in the landscape architecture field at a multi-discipline firm.

*Analysis of in-depth interview:* The first interviewee talked about how the first degree really helped for the second degree but that the professional experience is what geared the move to landscape architecture. Respondent 1 explained, "Absolutely everything I learned from my architecture degree set the stage for me to practice or to pursue my landscape architecture degree, even the experience of professional practice persuaded me to pursue my license in landscape architecture. I didn't even know that landscape architecture was a profession before I got in to the field of architecture." The interviewee talked about how the knowledge from the first degree helped in advancement of courses and how it helped in studio. Respondent 1 explained, "Not only did it propel me to advance two studios and a couple of classes but I was also able to really like dove into the project with a lot more detail than some of the other students coming from different backgrounds educationally that weren't coming from design professions." The interviewee commented, "the technical skills that I acquired were: composition, drafting, use of software programs, precision. Even though I know that is not really a category but

precision is really kind of key.” Respondent 1 also talked about how, “other technical skills were probably, even though it might not be seen as a skills, having thick skinned, being able to redevelop a project over and over again. You go through that in professional practice. For example, in an office you’ll have a client come in and say that is great you did that but this now, and sometimes just because and the deadline is not changed.”

The interviewee continued to answer the questions about the similarities and differences between the first degree and the second degree. Respondent 1 explained, “When you take a project from the get go and you have your program list, and you apply like the problem solving aspect of it, when you apply your ideas of what needs to happen on site and what things need to be responded to and how you contextually organize your project and how you develop the project. I think that is a major similarity between the two because in architecture school I remember that everything started with a contextual reference; and then obviously landscape architecture school, context is the driving force of a project. I know that in architecture it is a starting point but not a driving force and I would say that go back to differences. But it is definitely something that ties the two together.” Yet, the interviewee continued to comment on the differences between both degrees. Respondent 1 said, “the major difference between each design degree is the focus because the focus of architecture school is really design and the focus of landscape architecture school is problem solving. Both have to do with design and problem solving but architecture is more heavily based in design and landscape architecture is more in problem solving.”

While talking about the effect of the multiple design degree background on professional practice, the interviewee talk about how the background affected the hiring process for the current job position. Respondent 1 commented on the direct effect on the

daily practice in the multi-discipline company. Therefore, the interviewee said, “I got into a multi-disciplinary firm and have been able to toss myself around to all the different projects going on in the company . . . and to be able to do that, to be able to jump around between architecture development on the one end and master planning on the other, and be able to really cohesive help so we get a project out on time, so we can develop it to a level of detail that is as nice for a client and exceeding client requirements.” The conversation continued with how the multiple design background assist on the communication with other design disciplines. On that the topic, respondent 1 explained, “I know how to speak architecture and I also know how speak landscape architecture. I know they are not languages but that’s how I pursue them.” The interview continued with examples of how it effects the communication. Respondent 1 explained how, “the ability to transition for one to the other and to be the devil’s advocate and represent the other when in a conversation with the first. I think makes a huge difference because when you have the ability to cross reference it just really kind of empowers the conversation and separates out the unnecessary pitfalls when you have a lack of information and lack of basic standards of how both professions are heavy side differently.”

And to finish off the interview, respondent 1 said, “I think it is really cool to be able have the ability to switch. It is almost like two different languages, the ability to understand two different languages all though they are very similar they are different. It is just really nice to able to have both perspectives.”

#### *4.2.2 Respondent 2*

*Background:* This respondent received a Masters in Architecture from an international institution and the Masters of Landscape Architecture from The University of Texas at Arlington. The respondent had five years of experience in the architecture field and a year experience in the landscape architecture field at a landscape architecture firm.

*Analysis of in-depth interview:* The second interviewee suggested that the first degree assisted the second degree in any ways especially since both degrees were Masters degrees. Respondent 2 explained how, “For architecture degree I guess what we most learned was about composition, color, and later on we learned about the details, like how details are really important, & learning the fundamentals of building and structure.” The interviewee also said how, “that is something that may stick to your mind and you don’t know if you are going to use it anywhere, like in your landscape architecture degree or not. But this is something you learn thru out life and it’s with you. You learn everything from basics so whatever you see you know that there is behind it and you can tell that nothing is that superficial anymore. Also you have this basic knowledge of color and composition, and it helps you throughout design later in landscape architecture and life.” Respondent 2 said, “I can say that in my architecture background I learned a lot about urban design and urban planning. I am not sure if there were influences from the design school of architecture but I am pretty sure that fundamental knowledge from the architecture school really helped me throughout the school of landscape architecture.”

In the comparison of both degrees, the interviewee said, “I can say that right now both of these degrees are really concentrating on environmental studies. And both of them are like in architecture LEED is the trend right now, and in landscape architecture environmental design and ecological studies are really important. They are really in demand right now, so those are two really important things those two fields are concentrating on right now.” In this statement the respondent talked about how the concentration in sustainability makes them similar, yet they approach the topic from a different points. Some of the other differences mentioned that, “in architecture it is all about the building, and the context does matter when you’re analyzing it and studying,

but when you are designing it is about the building and whatever goes in the building and the in the organization of the building. With landscape you have this big picture thinking, big picture designing, and you are seeing everything and sort of ignoring whatever is going on as a building. I think they are competing with each other.”

Respondent 2 works in the landscape architecture department so the interviewee mentioned that there currently appears to be no major effect of the multiple design degree background on the professional practice. Yet, even though the interviewee doesn't see relevance for both degrees, the previous answers showed that maybe she has meshed both degrees together since they both involve urban design. The interviewee did make the observation that it does effect the communication with other design disciplines. Therefore, the interviewee said, “In that sense, it does cause you understand what engineers and architects are talking about. When your degree is only landscape architecture, maybe you wouldn't relate to the conversation as much as when you have this architecture background. You know what they are talking about and you know the obstacles and you know what is going on. You know the situation you are in. I think it will help with decision making.”

#### *4.2.3 Respondent 3*

*Background:* This respondent received a Bachelor's in Landscape Architecture from an international institution and the Masters of Landscape Architecture from The University of Texas at Arlington. The respondent had a year of experience in the landscape architecture field at a multi-disciplinary firm.

*Analysis of in-depth interview:* The third interviewee talked about how the first degree helped with the second degree, especially since both degrees were landscape architecture. Respondent 3 explained, “when I was young I really liked painting and photography.” The interviewee decided to make the most of those hobbies by choosing a

career path that would involve those hobbies. Respondent 3 mentioned that, “when I joined the program of landscape architecture, I had no idea what is that. After, I really learned about it, I really liked it, cause it is not like architecture. It is not just doing something with the materials that has no life, but landscape you talk with the clients and you need to think about live materials, plants.” The interviewee further talked about how, “in my university, there are two different directions in our program, ornamental horticulture and landscape design, we had to choose all of these two direction classes. After I came to the United States, I found out that all of my hobbies and the background that I learned, like ornamental horticulture, it really help me to get into the brand new program. I think the classes, the program, and the process are really different from here and China.”

In the comparison of both degrees, the interviewee talked about how the course structure sequence was similar in both programs. Respondent 3 explained, “we both have to learn history, like ancient landscapes, have a lot of field trips which you go to experience the landscapes, and they both have design studio.” Yet, the interviewee mentioned the studios are different because, “here we have actual sites for projects and over there we had assumed sites for projects.” Another difference mentioned, “but in both, I think the purpose are really good, but I can always learn from classmates, cause in the United States, Americans are more open.” Furthermore, the interviewee commented that, “in the bachelor degree, we gain a lot of basic knowledge and a lot of core classes. Even in studio, we learn the basic communication skills like in the United States. When I have that basic knowledge, I can advance into studio three in the master’s program.”

In the effect on the professional practice, the interviewee had little to mention since both degrees are in landscape architecture. Yet, the interviewee said, “From the

bachelor to masters, all of these classes give lots of ideas on how to deal with the real situation. Also, I find the differences between school and the real profession, because in the profession you have to consider the budget and the client's preferences." Also, respondent 3 mentioned that, "all of the basic construction classes and planting design classes gave lots of ideas on how to apply design in the professional practice," along with the software skills acquired throughout the years. The interviewee ended the professional practice topic with, "you need to handle so many different projects at the same time and most of the time they are the same. You need to develop them from the design concept thru the construction documents and have no time to do additional research to get more ideas. You need to learn more for outside office hours."

To complete the interview, respondent 3 compared herself to classmates in saying, "I think, for me, since my bachelor is also landscape it is easier to me to gain the higher degree of landscape architecture. But most of my studio classmates and friends have the bachelor degree of architecture, and I think to them it is hard to learn plants. But it is really helpful to them when they do urban design or when they do like the collage project. I think it is easier for them to get a new idea because their background helps them a lot. They know a lot about space relationships and they have good sense of space and design. For me, if I have time I would like to go back and take other classes or another degree in another design discipline. I think it will open our view of the work. To our designers, we cannot just focus on what we learned in school but we should focus multiple classes or multiple experience."

#### *4.2.4 Respondent 4*

*Background:* This respondent received a Bachelor's in Architecture from an international institution and the Masters of Landscape Architecture from The University of Texas at Arlington. The respondent had nine years of experience in the architecture field

and a year and a half of experience in the landscape architecture field at a multi-discipline firm.

*Analysis of in-depth interview:* The fourth interviewee talked about how the professional experience in architecture effected the landscape architecture education. Respondent 4 explained, “Actually for me because I have a lot of years of experience as architect, the main thing that affected my work is some basic design. I think some sense of space. Right now I am not working in landscape architecture, my job is urban design and architecture. So I am not really a landscape architect. But I think the architecture background benefits from that sense of design cause it’s general design, whatever the landscape, architecture, and urban design are the same for me.”

In the comparison of both degrees, the interviewee talked about how there are differences in both degrees since each degree was obtained in different countries. The interviewee explained, “it might be different cause I got my bachelor’s in China and I got my landscape degree in the United States. The system maybe a little bit of different but similarities is design. Both of them are about space design, whatever outdoor space, outdoor, interior.” Furthermore, “for me landscape architecture has more freedom, it has big land and you can do whatever you want. In architecture you don’t, you have limited size and have to work with very small space so less freedom and a lot of building code. Landscape is much easier and that is why I choose landscape architecture.”

In talking about the professional practice, the interviewee said, “they (the company) hired me because I have architecture background, they said that that way if work slows down in landscape architecture then they can put me to work in the other departments. This week I am working in other projects dealing with architecture.” Respondent 4 also said, “for my current job, I am doing urban design and we do a lot of hand drawings.” The interviewee mentioned other technical skills used, like Sketch-Up,

In-design, AutoCAD, and Photoshop. Respondent 4 talked about how the human scale understanding for design helped and explained, “at this company we do a lot of multi-family design. For urban design, it is not a large scale, it like multi-family community design. So if I have architecture background it really helps me to understand how people use the space, what are people’s needs, and how to organize the space that helps me a lot.”

To conclude the interview, the participant said, “I like the multiple background because it helps you to understand different things. And also it is easier to find a job and there is more flexibility. I can do landscape design, urban design, and architecture design. I like the variety.” Furthermore, the interviewee mentioned, “so I have architecture background, and landscape architecture really helped me understand the outdoor space and how to design outdoor space. They help each other.”

#### *4.2.5 Respondent 5*

*Background:* This respondent received a Bachelor’s in Architecture from an international institution and the Masters of Landscape Architecture from The University of Texas at Arlington. The respondent had only half a year of experience in the landscape architecture field at a multi-discipline firm.

*Analysis of in-depth interview:* The fifth interviewee talked about how everything in the first degree helped in the second degree. Respondent 5 explained, “I feel like architecture and landscape architecture work together. In my architecture degree, I learned all the problems that at the end of the day I will use in landscape architecture.”

In the comparison of both degrees, the interviewee talked about how maybe studying in two different countries made the degree programs more different than similar. The interviewee did explain that the type of classes were similar, like studio, history classes, and others, “but with different context.” Furthermore, “In my mind I feel like

architecture showed me how to design buildings but I felt like nature was kind of disconnected in a way. So going to landscape architecture now, I feel like I can see the bigger picture. So it's like they totally correlate, but even though I still like architecture more than landscape architecture I feel more prepared to be a good architect.”

On the topic of the effect of the multiple design degree background on professional practice, the interviewee mentioned how it helps in the current job position held. Respondent 5 explained how, "right now I am doing mostly urban design and I feel like if I had only one of those degrees I wouldn't understand what I have to do. I feel like I would be missing something so now when I am designing I think not only of the building like I used to but now with the landscaping degree I think about the surroundings, also I feel like it's been beneficial.”

#### 4.2.6 Respondent 6

*Background:* This respondent received a Bachelor's in Architecture from an international institution and the Masters of Landscape Architecture from The University of Texas at Arlington. The respondent had a year of experience in the architecture field and a year of experience in the landscape architecture field at a multi-discipline firm.

*Analysis of in-depth interview:* The sixth interviewee talked about how the first degree helped the second degree, and compared herself to other classmates without a previous design degree. Respondent 6 explained, “I think most important things is that people who learned the architecture have the ability to key the spacing that is also good for landscape architect.” In comparing with other non-multiple design recipients, the interviewee mentioned that there appeared to be, “spacing perception advantage over them when designing.” Also, the interviewee talked about how most, “non-architecture (background) students were too detail oriented.”

In the comparison of both degrees completed, the interviewee said, “I think both architecture and landscape architecture involve social, culture, economic, ecological, and other aspects . . . and they are both design disciplines.” The major difference mentioned, “when a building is finished the building will not change and landscape will.” In this the interviewee was talking about how the material used in architecture profession is non-changing overall, yet the material changes in landscape over time, even through the seasons.”

On the topic of the effect on the professional practice, the interviewee said, “I think it (multiple design degree background) did effect my job.” Respondent 6 further explained, “I can easily communicate with other design disciplines.” The interviewee also talked about the multiple skills learned in architecture that help in practicing landscape architecture. She explained, “the mastered skills help for more productive time on design and research, instead of working on skills.”

#### *4.2.7 Respondent 7*

*Background:* This respondent received a Bachelor’s in Architecture from an international institution and the Masters of Landscape Architecture from The University of Texas at Arlington. The respondent had two years of experience in the architecture field and three years of experience in the landscape architecture field at a landscape architecture firm with multi-discipline projects.

*Analysis of in-depth interview:* The seventh interviewee talked about how the architecture education effected the landscape architecture education. Respondent 7 explained how, “some basic design and some sense of space helped me develop my projects during graduate school.” The interviewee talked about projects that involved something in urban design were the principle project to demonstrate the previous quote.

In the comparison of both degrees, the interviewee talked about how she believed there are more differences than similarities in the degrees mainly because they were completed in different countries. Yet, the interviewee mentioned how, “they are both about designing space.” Additionally, “in architecture we spent more time creating space and in landscape architecture we spent more time collecting data to then design space.”

On the topic of the effect on professional practice, the interviewee mentioned how the current position involved multiple disciplines to finalize a project for a client. Respondent 7 talked about the typically skills acquired in both degrees assisted in the process of the development of a project. Also, the interviewee talked about the ease to talk with other design disciplines especially in project involving institutions, municipalities, and other multi-discipline projects in the company.

#### *4.2.8 Respondent 8*

*Background:* This respondent received a Bachelor's of Science in Architecture from an institution in the state of Texas and the Masters of Landscape Architecture from The University of Texas at Arlington. The respondent had no experience in the architecture field and five years of experience in the landscape architecture field at multi-discipline firms.

*Analysis of in-depth interview:* The eighth interviewee talked about how the architecture education effected the landscape architecture education. Respondent 8 explained how, “the obvious being the technical skills, like drafting, AutoCAD, and Photoshop.” The interviewee talked about a better understanding of spatial relationships helped in the design process. Respondent 8 explained, “the understanding of the Fibonacci series, the golden triangle, and many other spatial relationship.” She further

commented on the Kevin Lynch book *The Image of the City* and that things like paths and nodes from architecture were reiterated in landscape architecture.

In the comparison of both degrees, the interviewee talked about how she believed there are more differences than similarities in the degrees despite having completed the degrees in the same school, just a different program. The interviewee mentioned how they were both about designing space but, “landscape architecture is more about the stewardship of the land and architecture is more about itself.” Furthermore, the respondent commented that “the structure in the development of the studio sequence and the studio itself were similar. For example, the sequence of projects in studio for architecture and landscape architecture include in order reference, concept, design development, final project, and jury presentation.” Yet, as for the difference the respondent talked about how, “design went from black and white to full color, which added more complexity to the design in my perspective because you also had to take into account the life form of the material used to form the spaces. Therefore, there are many more layers to design and spatial relationships.”

On the topic of the effect on professional practice, the interviewee mentioned how the current position involved multiple disciplines to finalize a project for the city, like many of the other respondents. Respondent 8 talked about the same technical skills acquired in the first degree used for the second degree assisted in the process of the development of a project, along with the additional technical skills acquired in the second degree. Additionally, the respondent talked about the “better understanding of the potential conflicts not just between architecture and landscape architecture professionals but also other disciplines because of the view outside of the box.”

#### 4.2.9 Respondent 9

*Background:* This respondent received a Bachelor's in Environmental Design in the architecture field from an institution in the state of Oklahoma and the Masters of Landscape Architecture from an institution in the state of Oklahoma. The respondent had no experience in the architecture field and twenty-three years of experience in the landscape architecture field at landscape architecture firms.

*Analysis of in-depth interview:* The ninth interviewee talked about how the first degree helped for the second degree. Respondent 9 talked about to his perception that most landscape designers lack a "sense of spatial relationships" which he learned in architecture school. The interviewee also mentioned, "There is a mathematical formula for sizing rooms and as a landscape designer you are creating rooms outdoors."

In the comparison of both degrees, the interviewee mentioned that the course sequence is similar. Therefore, respondent 9 talked about how, "up until your third year they are both the same. It is until the fourth year when you start to take more of the mechanics classes and structural classes." The interviewee mentioned that the course structural sequence of the both degrees mainly concentrate on teaching design for the first three years and then get into the software application into the studio until the last year. Therefore, the interviewee said, "they try to force you to be a designer first." A major difference talked about was how, "the design aspect of it (landscape architecture) is much more wide open." He also mentioned how, "in architecture everything you do is being checked by somebody. What I am saying is you have to have your engineering checked, you have to go through all the city codes, state ordinance, and I mean everyone wants to put their finger on it. By the time you get done, it's not so much about design, it is about meeting the ordinance requirements. And then when you go to landscape it was

just wide open, what do you want to do with this open space. Now that really appealed to me that was fantastic. So, it's the looseness, it's the more being raw design."

Respondent 9 has the experience in landscape architecture firms only so the interviewee mentioned that there appeared to be little effects of the multiple design degree background on the professional practice. The interviewee talked about how knowing architecture building types helped in the design to the landscapes that would complement the building. He also mentioned how it effects the interaction with other design disciplines in the daily practice. Therefore, he said, "for the most part yes when the architect is speaking about the requirements, it's easy to understand because I don't have to go search what things are."

And to finish, the interviewee said, "Architects mostly see landscape architecture as a step down and not a lateral step or a step up." He also talked about the benefit of having more years of design studio helped him, "learn to know you're a good designer . . . or overall be a thorough designer." The interviewee mentioned how, in his perception, the only two degrees that would help is architecture/engineering and or marketing.

### 4.3 Overall Findings

The interview questions were divided into three categories and the data analysis was conducted through each of the three categories. The three categories are: the profile section, the educational background and its effect, and the professional practice and the effect from multiple design degrees.

#### *4.3.1 Profile*

The profile section includes the participants' degree before their Masters of Landscape Architecture, the location the participants received the Bachelor's degree, and the type of firm the participants currently work. As it is briefly highlighted earlier nine interviews were conducted as part of the research. All of the participants had a Master's degree in Landscape Architecture. As previously noted before, eight out of the nine respondents completed their Masters of Landscape Architecture degree at The University of Texas at Arlington. Eight respondents have a previous design degree in architecture, while the other one has an undergraduate degree in landscape architecture. Data analysis also reveals that six out of nine respondents have international design degrees. Figures 4-1 through 4-3 illustrate the findings.

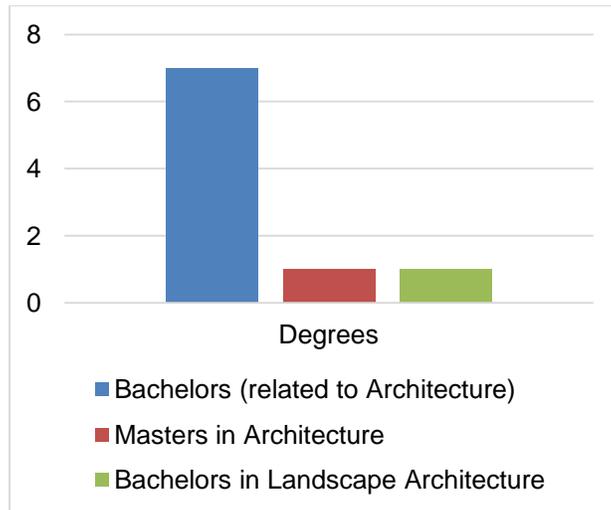


Figure 4-1 Previous Degree Received by Participants

Figure 4-1 shows that eight out of nine participants received a previous degree in Architecture.

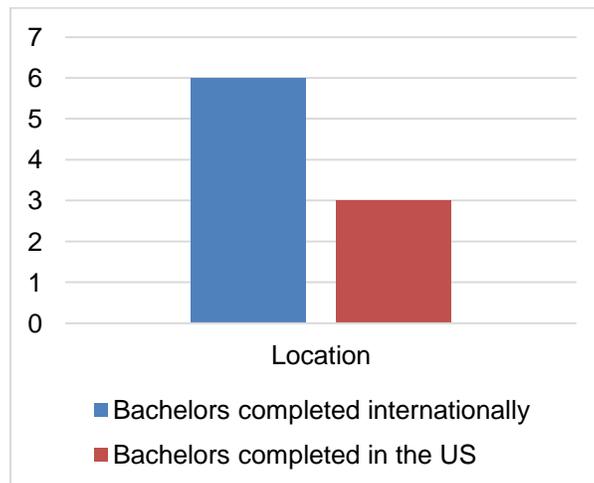


Figure 4-2 Location of First Degree Completed

Figure 4-2 shows that six out of the nine participants received their previous degree from an international institution and not from the United States.

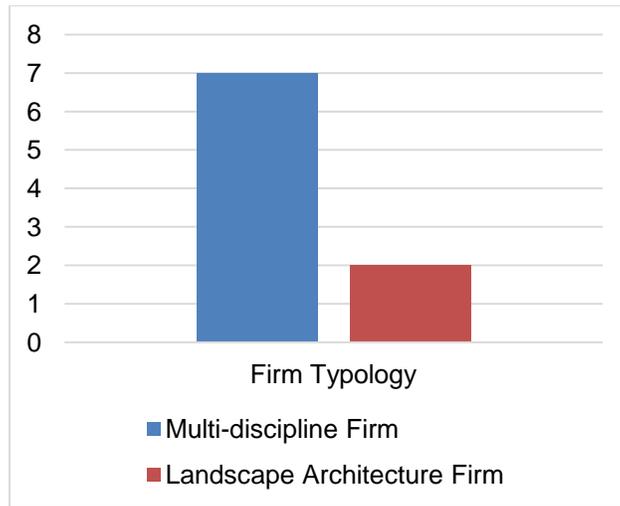


Figure 4-3 Firm Typology

Figure 4-3 shows that seven out of nine of the participants work at a multi-discipline firm and two out of the nine work for a landscape architecture firm only. Multi-disciplinary firm in this research is defined as a firm that houses different design departments in the company along with the landscape architecture department. The participants' responses showed to reflect the firm typology when answering the interview questions dealing with the professional practice section.

#### 4.3.2 Educational Background

The educational background section includes the effect of the first degree had on the second degree and the similarities and differences between completed degrees as applies while in school. The following tables illustrate the findings from this section:

Table 4-1 Skills Used From Previous Design Degree

<b>Communication Skills</b>	<b>Design Skills</b>	<b>Miscellaneous Skills</b>
"composition"	"details"	"everything"
"color"	"basic design"	"structure"
"drafting"	"sense of space"	"ornamental horticulture"
"software"	"sense of design"	"urban design"
"painting"	"spatial proportions"	"thick-skinned"
	"scale"	
	"space"	
	"spacing perception"	
	"spatial relationships"	

Table 4-1 illustrates the skills mentioned by the participants. The design skills were mentioned more often than the other skills categories but with a main theme of "human spatial relationships." The communication skills mentioned had more variety but with no main theme. Yet after further evaluation of the skills used from previous design degree, the categories of communication, design, and miscellaneous, were be sub-divided into themes illustrated on Table 4-2:

Table 4-2 Themes of Skills from Previous Degree

	<b>Communication Skills</b>	<b>Design Skills</b>	<b>Miscellaneous Skills</b>
<b>Themes:</b>	technical skills	dimension	object (structure)
	manual skills	design	courses
			'everything'

In the communication skills category, the respondents referred to the skills they acquired whether it be a technical or manual skill, hand skill. In the design skills category, the respondents referred to their further understanding of design and dimensions, including spatial relationships. In the miscellaneous category, the respondents referred to the knowledge they gained: courses (from previous degree); structure; 'everything' (from previous degree and or professional practice).

Table 4-3 Similarities of Both Degrees Completed

<b>Both Degree Programs</b>	
“problem solving”	“similar course structure”
“contextual reference”	“space design”
“design development process in studio”	“similar methods of studio order: 1 <sup>st</sup> year-hand drawings; 2 <sup>nd</sup> year computer programs”
“environmental”	“design disciplines”
“sustainable issues”	“design”

Table 4-3 illustrates some of the common phrases that showed up in the participants’ responses for the interview question about the similarities between the first degree and the second degree.

Table 4-4 Differences of Both Degrees Completed

<b>First Degree Program</b>	<b>Second Degree Program</b>
“design”	“problem solving”
“structure”	“surrounding”
“theoretical sites for projects”	“big picture”
“basic knowledge (core classes)”	“actual sites for projects”
“more codes and regulations”	“learnability from classmates”
“less design freedom”	“more design freedom”
“material will not change”	“materials change over time, even through the seasons”
“always checked by someone else”	“artistic”
	“raw design”
	“design more wide open”

Table 4-4 illustrates the common phrases in the responses over the differences between the first degree and the second degree. Some of the similarities in degrees were also seen as the differences; for example, a respondent mentioned that both schools were about problem solving and design oriented, but stated that architecture was more design oriented and landscape architecture was more problem solving oriented.

Upon further review of the categories in similarities and differences of both completed degrees, the responses, in both similarities and differences, can be divided into two major themes as illustrated on Table 4-8:

Table 4-5 Themes from Similarities and Differences between Completed Degrees

	<b>Similarities</b>	<b>Differences</b>
<b>Themes:</b>	Content of courses	Content of courses
	Concentration of program	Concentration of program

As illustrated in Table 4-5, the two main themes, for both similarities and differences between completed degrees, are content of courses and concentration of program. Respondents suggested there were similarities and differences between the courses completed in both programs. Also, the respondents suggested there were similarities and differences between the concentrations of the programs they completed.

#### *4.3.3 Professional Practice*

The professional practice section includes categories and themes for the respondents' responses to the questions in reference to the effect of the multiple design degree on their professional practice in landscape architecture. The following table illustrates the findings for this section:

Table 4-6 Skills Used in Professional Practice

<b>Communication Skills</b>	<b>Design Skills</b>	<b>Miscellaneous Skills</b>
“the ability to transition between one to another”	“spatial relationships”	“not at this position”
“ability to cross reference”	“able to think structure”	“thick-skinned”
“understanding the conversation with other design disciplines help with decision making”	“able to jump around between architecture development on one end and master planning on the other. . .and cohesively help both”	“no application of skills from both degrees in current position”
Software	“fundamentals of building and structure”	“able to think outside the box” (new perspective of the box)
“hand drawings”	“spatial proportions”	“I like the variety”

Table 4-6 illustrates the responses to the professional practice related questions. Some participants mentioned that they work in multiple departments within the company. The responses to this section of questions did appear to correlate more with the current firm the participants work for at the time of the interview. Furthermore, after further evaluation of the skills used from previous design degree, the categories of communication, design, and miscellaneous, were be sub-divided into themes illustrated on Table 4-7:

Table 4-7 Themes for Skills Applied to Professional Practice

	<b>Communication Skills</b>	<b>Design Skills</b>	<b>Miscellaneous Skills</b>
<b>Themes:</b>	Language	Space	Not applicable
	Technical skills	Object (structure)	Architect
	Manual skills (hand skills)		

In the communication skills category, the respondents referred to the skills they acquired whether it be language, technical skill, or manual skill, hand skill. In the design skills category, the respondents referred to their further understanding of structure and space, including spatial relationships. In the miscellaneous category, the respondents referred to ‘not applicable’ or felt more as an architect.

## 4.4 Common Themes

### 4.4.1 Themes of the Perceived Value

Table 4-8 Themes of Perceived Value

<b>Different Perspective</b>	<b>More Tools</b>	<b>Better Connection</b>
R2: "You learn everything from basics so whatever you see you know that there is something behind it and you can tell that nothing is that superficial anymore."	R6: "The mastered skills help for more productive time on design and research, instead of working on skills."	R5: With architecture and landscape architecture background "I feel like I can see the bigger picture."
R4: Since, "I have architecture background, it really helps me understand how people use the space, what are people's needs, and how to organize the space."	R3: "My studio classmates and friends, with architecture background, can do urban design projects easier and get new ideas because their background helps them a lot."	R4: "Architecture and landscape architecture background really helped me understand outdoor space and how to design outdoor rooms. They help each other."

Table 4-8 shows the respondents' quotes categorized into three major themes, different perspective, more tools in one's tool box, and better connection. The three major themes were sub-divided into more themes:

- Different perspective: Respondents suggested they gained a different perspective in design, in human scale (both macro and micro), and in spatial relationships (both at a macro and micro scale).
- More tools: Overall the respondents suggested there was more productive because of more tools (skills and knowledge).
- Better connections: The respondents suggested there were overall better connections between both the degrees they completed.

#### 4.4.2 Themes of the Effect on Education

Table 4-9 Themes of Effect on Education

<b>Understanding Context</b>	<b>Details Vs. Big Picture</b>	<b>Design Freedom</b>	<b>Analytical Vs. Artistic</b>
R3: "I can always learn more from classmates, cause Americans are more open.."	R1: "Able to really dive into projects with a lot more detail than some of the other students (with different degree)"	R9: "It's the looseness, it's the more being raw design." (landscape architecture)	R2: 'Architecture includes the context when analyzing. . .and landscape architecture is all about the context.'
R9: 'Knowing architecture building types helped in the design of landscapes that would complement the building.'	R2: "With landscape you this big picture thinking, big picture designing, and you are seeing everything. . ."	R6: "When a building is finished the building will not change and landscape will. . ."	R7: "In architecture, we spent more time creating space; and in landscape architecture we spent more time collecting data to then design space."

Table 4-9 shows the respondents' quotes categorized into four major themes, understanding context, details versus big picture, design freedom, analytical versus artistic. The four major categories were sub-divided into more themes:

- Understanding of context: Respondents suggested they had a better understanding of context not just physically but theoretically too.
- Details vs. big picture: Respondents suggested that 'architecture is detail oriented while landscape architecture is big picture oriented.
- Design freedom: Respondents commented that architecture has less design freedom and landscape architecture has more design freedom.
- Analytical vs artistic: Respondents suggested that landscape architecture is analytically oriented while architecture is artistically oriented in reference to design.

4.4.3 Themes of the Effect on Professional Practice

Table 4-10 Themes of Effect on Professional Practice

<b>Communication</b>	<b>Real-life Application</b>	<b>Understand other design disciplines</b>
R1: "I speak architecture. . . and I also speak landscape architecture." ". . .separates out unnecessary pitfalls. . ."	R1: ". . .thick-skinned, being able to redevelop a project over and over again."	R5: "I am doing mostly urban design and I feel like if I had only one of those degrees I wouldn't understand what I have to do."
R2: "know what they (other design disciplines) are talking about; . . .know the situation you are in. . ."	R3: ". . .(in both degrees) all classes gave me a lot of ideas on how to deal with the real situation."	

Table 4-10 shows the respondents' quotes categorized into three major themes, communication, real-life application, and understanding other design disciplines. The three major themes were sub-divided into more themes:

- Communication: Respondents suggested they were 'bilingual' (multiple understanding of both profession's terminology); have a multiple perception of the situation (in conversations); could cross-reference and that it empowers the conversation.
- Real-life application: Many respondents suggested both degrees helped them to be more prepared for real-life application.
- Understand other design disciplines: A couple of respondents suggested they understand urban design (with architecture and landscape architecture).

#### 4.5 Summary

This chapter reviewed the analysis and findings of the research, and captured some categories and common themes concerning the educational and professional backgrounds of landscape architecture professionals with multiple design degrees in landscape architecture. This was done to understand the educational and professional value and implications of such backgrounds in the field of landscape architecture. The following chapter summarizes the overall research and discusses the research findings and its relevance to landscape architecture.

## Chapter 5

### Conclusion

#### 5.1 Introduction

This chapter summarizes the research, its findings, and discusses its relevance to landscape architecture. It also poses questions or directions for future research. The conclusion of the research is outlined through the research questions posed earlier in this study. The three research questions were:

- Is there value to having multiple design degrees in landscape architecture?
- What is the effect of a design degree during graduate education?
- What is the effect of having multiple design degrees when practicing landscape architecture?

#### 5.2 Perceived Value of Multiple Design Degrees

According to respondents of this research there is value to having multiple design degrees in graduate school. Yet as applied to the professional practice, the value of having multiple design degrees is more critical if the job involves a multi-discipline firm or a multi-disciplinary project.

The common themes in the perceived value were the advantage of multiple perspectives, having more tools in one's toolbox, and better connections between both design disciplines. In the perceived value of multiple perspectives, the participants suggested they felt like that had multiple perspectives in design, human scale, and spatial relationships. As respondent 5 explained, 'landscape architecture prepared me to be a better architect.' More specifically for human scale and spatial relationships, the participants suggested they had a perspective on both at a macro and micro scale because of the two different design disciplines. As respondent 4 explained, 'since I have an architecture background, when doing urban design it helps me to understand how

people use the space, what people's needs are, and how to organize the space.' Also with reference to spatial relationships, respondent 9 explained, 'most landscape designers lack a sense of spatial relationships at a human scale which I learned in architecture school.' Furthermore, in reference to more tools in one's toolbox, respondent 6 explained, 'the mastered skills help for more productive time on design and research, instead of working on skills.' Finally, with reference to better connection with other design disciplines, the participants talked about communication, a theme covered more on the effect on during professional practice.

### 5.3 Effect on Education

The skills brought into graduate school from a previous design degree help students to express their design ideas with more freedom. Though a previous related design degree shows similarities to landscape architecture, the perspective to design is different and yet both degrees complement each other.

The common themes on the effect of the multiple design degrees on graduate education were better understanding of the context, details versus big picture, the design freedom, and analytical versus artistic. The participants suggested they gained a better understanding of the context, not only the physical context when designing, but also the context of 'the box,' as to how to approach design (like to common phrase 'think outside the box'). With reference to how details versus big picture in graduate education, respondent 1 explained, 'I am able to dive into projects with more details than some of the other students with different background educationally, yet now I am also able to get the big picture in designing.' Some participants also talked about how in architecture you have less freedom in design and in landscape architecture you have more freedom in design. Furthermore, the participants suggested they gained a different perspective to analytical design versus artistic design. As respondent 7 explained, 'in architecture we

spent more time creating space and in landscape architecture we spent more time collecting data to then design space.'

#### 5.4 Effect on the Professional Practice

Overall, multiple design degrees provide more tools in ones' toolbox to address design problems when practicing landscape architecture. There are more variables in determining the effect on having multiple design degrees when practicing landscape architecture. Some of the variables are: the participants' years in practice; the type of firm; the type of experience when in professional practice; and others not explored in this study.

The common themes on the effect on the professional practice were communication, real life application, and the understanding of other design disciplines other than the ones studied. In reference to the effect on communication, the participants suggested that they know two languages, have multiple perception of the situation, and overall that the ability to cross-reference empowers the conversation. Respondent 1 explained, 'I know how to speak architecture and I also know how to speak landscape architecture, yet I know they aren't languages.' As far as having multiple perceptions of the situation, respondent 2 explained, 'you know what they (other design disciplines) are talking about, you know the obstacles, and you know what is going on with both sides.' Also, with reference to the cross-reference, respondent 1 explained, 'to have the ability to cross reference just really empowers the conversation and separates out the unnecessary pitfalls when you have a lack of information and lack of basic standards of how both professions are heavy sided differently. Furthermore, with reference to the real life application, the applicants talked about how the courses taken in both degrees helped when applied to the professional practice. More specifically, respondent 1 explained how the course structure of studio helped her gain the ability, 'to have thick skin, being able to

redevelop a project over and over again as done often in an office.' Finally, respondents suggested they gained an understanding of other design disciplines that they did not study. As respondent 5 explained, 'I am working mostly on urban design and I feel like if I had only one of those degrees (architecture and landscape architecture) I wouldn't understand what I have to do.'

### 5.5 Discussion on Relevance to Landscape Architecture

This research study begins to illustrate the implications of multiple design degree background individuals on landscape architecture education and profession from their perspective. The implications of multiple design degrees on landscape architecture is relevant since the landscape architecture profession has continued to grow throughout the years and currently just under half of the job opportunities are found in related design service fields. Also, with the continued growth of accredited landscape architecture academic programs and more students with other design discipline backgrounds going into these programs, the implications of multiple design degrees on landscape architecture education is also relevant.

With eight out of nine of the respondents coming out of the Program of Landscape Architecture from The University of Texas at Arlington, this research study gives a perspective on the program from the individuals with multiple design degrees. First, the respondents from this study give their perspective on the adaptability of the program to students with other previous design degrees, and to no surprise they are satisfied with the adaptability of the program. Furthermore, these respondents suggested there should be further exploration of earlier exposure of into other design disciplines within the program's curricula and not just competitions outside of the classes offered.

## 5.6 Suggestions for Future Research

The suggestions for future research can be divided into two major categories, the participant selection by educational background and the participant selection by location. The participant selection by educational background includes: study participants with a single design degree; or study participants with other design degrees, specifically marketing and/or business, since these degrees could be applied in the landscape professional practice more than in graduate school. The participant selection by location includes: study more participants in different locations other than the North Texas area; study participants in a wider range of firm types; or study participants in a narrow firm type and widen the location of practice.

The future research can also concentrate on interviews with the employers of educators of the multiple design degree individuals to get a different perspective on the effect on the professional practice. Learning from employers and our educators, specifically studio professors, of students with multiple design degrees can give the perspective on the effect on the graduate education.

Appendix A  
IRB Approval



Office of Research Administration  
Regulatory Services  
817-272-3723  
regulatoryservices@uta.edu  
<http://www.uta.edu/research/administration>

**Institutional Review Board  
Notification of Exemption**

October 10, 2013

Alicia Rivera  
Dr. Taner Ozdil  
School of Architecture  
19108

Protocol Number: 2014-0108

Protocol Title: *ASSESSING THE VALUE OF DUAL DESIGN DEGREES FOR  
LANDSCAPE ARCHITECTS: LEARNING FROM PROFESSIONALS IN  
NORTH TEXAS*

**EXEMPTION DETERMINATION**

The UT Arlington Institutional Review Board (IRB) Chair, or designee, has reviewed the above referenced study and found that it qualified for exemption under the federal guidelines for the protection of human subjects as referenced at Title 45CFR Part 46.101(b)(2).

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, either directly or through identifiers linked to the subject; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

You are therefore authorized to begin the research as of **October 10, 2013**.

Pursuant to Title 45 CFR 46.103(b)(4)(iii), investigators are required to, “promptly report to the IRB any proposed changes in the research activity, and to ensure that such changes in approved research, during the period for which IRB approval has already been given, are **not initiated without prior IRB review and approval** except when necessary to eliminate apparent immediate hazards to the subject.” Please be advised that as the principal investigator, you are required to report local adverse (unanticipated) events to the Office of Research Administration; Regulatory Services within 24 hours of the occurrence or upon acknowledgement of the occurrence. All investigators and key personnel identified in the protocol must have documented Human Subject Protection (HSP) Training on file with this office. Completion certificates are valid for 2 years from completion date.



Office of Research Administration  
Regulatory Services  
817-272-3723  
regulatoryservices@uta.edu

<http://www.uta.edu/research/administration>

The UT Arlington Office of Research Administration; Regulatory Services appreciates your continuing commitment to the protection of human subjects in research. Should you have questions, or need to report completion of study procedures, please contact Robin Dickey at 817-272-9329 or [robind@uta.edu](mailto:robind@uta.edu). You may also contact Regulatory Services at 817-272-3723 or [regulatoryservices@uta.edu](mailto:regulatoryservices@uta.edu).

**UT Arlington**  
**Informed Consent Document**

**PRINCIPAL INVESTIGATOR**

Alicia Rivera, Program in Landscape Architecture, alicia.rivera@mavs.uta.edu

**FACULTY ADVISOR**

Dr. Taner Ozdil, Program of Landscape Architecture, tozdil@uta.edu

**TITLE OF PROJECT**

ASSESSING THE VALUE OF DUAL DESIGN DEGREES FOR LANDSCAPE ARCHITECTS: LEARNING FROM PROFESSIONALS IN NORTH TEXAS

**INTRODUCTION**

You are being asked to participate in this research study about the effect of having dual design degrees for landscape architecture professionals, during graduate education and in the professional practice. Your participation is voluntary and appreciated. Refusal to participate or discontinuing your participation at any time will involve no penalty. Please ask questions if there is anything you do not understand.

**PURPOSE**

The purpose of this study is to assess the value having dual design degree background among landscape architecture professionals, particularly the ones practicing North Texas.

**DURATION**

Participation in this study will last approximately 45-60 minutes in an in-person or telephone interview.

**NUMBER OF PARTICIPANTS**

The number of anticipated participants in this research study is 50.

**PROCEDURES**

The procedures which will involve you as a research participant include:

1. In-person interview
2. Or phone interview

The interview will be audio recorded. After the interview, the digital recording will be transcribed, which means they will be typed exactly as they were recorded, word-for-word, by the researcher. The digital recording will be deleted after transcription.

IRB Approval Date:

OCT 10 2013

1

IRB Expiration Date:

# UT Arlington

## Informed Consent Document

### **POSSIBLE BENEFITS**

A benefit for you as a participant is the self-evaluation on the effect of your education on your professional practice.

### **POSSIBLE RISKS/DISCOMFORTS**

Any information or comments regarding you will be kept private for this study only and not shared with anyone else. You have the right to quit any study procedures at any time at no consequences and may do so by informing the researcher.

There are no perceived risks or discomforts for participating in this research study. Should you experience any discomfort please inform the researcher, you have the right to quit any study procedures at any time at no consequence.

### **COMPENSATION**

There is no compensation arranged for participation in this study.

### **ALTERNATIVE PROCEDURES**

There are no alternative procedures offered for this study. However, you can elect not to participate in the study or quit at any time at no consequence.

### **VOLUNTARY PARTICIPATION**

Participation in this research study is voluntary. You have the right to decline participation in any or all study procedures or quit at any time at no consequence.

### **CONFIDENTIALITY**

Every attempt will be made to see that your study results are kept confidential. A copy of this signed consent form and all data collected including transcription from this study will be stored in room #417 in the School of Architecture at The University of Texas at Arlington for at least three (3) years after the end of this research and will be destroyed thereafter. The result of this study may be published and/or presented at meetings without naming you as a participant. Additional research studies could evolve from the information you have provided, but your information will not be linked to you in anyway; it will be anonymous. Although your rights and privacy will be maintained, the Secretary of the Department of Health and Human Services, the UTA Institutional Review Board (IRB), and personnel particular to this research have access to the study records. Your records will be kept completely confidential according to current legal requirements.

IRB Approval Date:

OCT 10 2013

IRB Expiration Date:

**UT Arlington**  
**Informed Consent Document**

They will not be revealed unless required by law, or as noted above. The IRB at UTA has reviewed and approved this study and the information within this consent form. If in the unlikely event it becomes necessary for the Institutional Review Board to review your research records, the University of Texas at Arlington will protect the confidentiality of those records to the extent permitted by law.

**CONTACT FOR QUESTIONS**

Questions about this research may be directed to Alicia Rivera at 469-236-6945 or Dr. Taner Ozdil at 817-272-5089. Any questions you may have about your rights as a research participant or a research related injury may be directed to the chairperson of the UT Arlington Institutional Review Board at 817-272-3723 or to the Office of Research Administration; Regulatory Services at 817-272-2105 or [regulatoryservices@uta.edu](mailto:regulatoryservices@uta.edu)

**As a representative of this study, I have explained the purpose, the procedures, the benefits or the risk that are involved in this research study:**

---

**Signature and printed name of principal investigator or person obtaining consent** **DATE**

I can be reached at 469-236-6945 or you can email me at [alicia.rivera@mavs.uta.edu](mailto:alicia.rivera@mavs.uta.edu)

**CONSENT**

By signing below, you confirm that you are 18 years of age or older and have read or had this document read to you. You have been informed about this study's purpose, procedures, possible benefits and risks, and you have received a copy of this form. You have been given the opportunity to ask questions before you sign, and you have been told that you can ask other questions at any time.

You voluntarily agree to participate in this study. By signing this form, you are not waiving any of your legal rights. Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may discontinue participation at any time without penalty or loss of benefits, to which you are otherwise entitled.

---

**SIGNATURE OF VOLUNTEER** **DATE**

IRB Approval Date:

**OCT 10 2013**

**3**

IRB Expiration Date:

Appendix B

IRB Modification Approval



February 18, 2014

Alicia Rivera  
Dr. Taner Ozdil  
School of Architecture  
Box 19108

**IRB No.: 2014-0108**

**Title:** *ASSESSING THE VALUE OF DUAL DESIGN DEGREES FOR LANDSCAPE ARCHITECTS: LEARNING FROM PROFESSIONALS IN NORTH TEXAS*

### **EXEMPT MINOR MODIFICATION APPROVAL MEMO**

The UT Arlington Institutional Review Board (UTA IRB) Chair (or designee) reviewed and approved the modification(s) to this exempt protocol on **February 18, 2014** in accordance with Title 45 CFR 46.101(b). Therefore, you are authorized to conduct your research. The modification(s), indicated below, was/were deemed minor and appropriate for exempt determination/acknowledgment review.

- Change "Dual Design Degree" to "Multiple Design Degrees" on all study documents
- Change study title from "ASSESSING THE VALUE OF DUAL DESIGN DEGREES FOR LANDSCAPE ARCHITECTS: LEARNING FROM PROFESSIONALS IN NORTH TEXAS" to "ASSESSING THE VALUE OF DUAL DESIGN DEGREES FOR LANDSCAPE ARCHITECTS: LEARNING FROM PROFESSIONALS IN NORTH TEXAS" to "ASSESSING THE VALUE OF MULTIPLE DESIGN DEGREES FOR LANDSCAPE ARCHITECTS: LEARNING FROM PROFESSIONALS IN NORTH TEXAS."

Pursuant to Title 45 CFR 46.103(b) (4) (iii), investigators are required to, "promptly report to the IRB *any* proposed changes in the research activity, and ensure that such changes in approved research, during the period for which IRB approval has already been given, **are not initiated without IRB review and approval** except when necessary to eliminate apparent immediate hazards to the subject."



Office of Research Administration  
Regulatory Services  
817-272-3723  
regulatoryservices@uta.edu  
<http://www.uta.edu/research/administration>

The modification approval will additionally be presented to the convened board on March 4, 2014 for full IRB acknowledgment [45 CFR 46.110(c)]. All investigators and key personnel identified in the protocol must have documented Human Subjects Protection (HSP) training on file with the UT Arlington Office of Research Administration; Regulatory Services.

The UT Arlington Office of Research Administration appreciates your continuing commitment to the protection of human research subjects. Should you have questions or require further assistance, please contact Robin Dickey at [robind@uta.edu](mailto:robind@uta.edu) or you may contact the Office of Regulatory Services at 817-272-3723.

**UT Arlington**  
**Informed Consent Document**

**PRINCIPAL INVESTIGATOR**

Alicia Rivera, Program in Landscape Architecture, alicia.rivera@mavs.uta.edu

**FACULTY ADVISOR**

Dr. Taner Ozdil, Program of Landscape Architecture, tozdil@uta.edu

**TITLE OF PROJECT**

ASSESSING THE VALUE OF MULTIPLE DESIGN DEGREES FOR LANDSCAPE ARCHITECTS: LEARNING FROM PROFESSIONALS IN NORTH TEXAS

**INTRODUCTION**

You are being asked to participate in this research study about the effect of having multiple design degrees for landscape architecture professionals, during graduate education and in the professional practice. Your participation is voluntary and appreciated. Refusal to participate or discontinuing your participation at any time will involve no penalty. Please ask questions if there is anything you do not understand.

**PURPOSE**

The purpose of this study is to assess the value having multiple design degree background among landscape architecture professionals, particularly the ones practicing North Texas.

**DURATION**

Participation in this study will last approximately 45-60 minutes in an in-person or telephone interview.

**NUMBER OF PARTICIPANTS**

The number of anticipated participants in this research study is 50.

**PROCEDURES**

The procedures which will involve you as a research participant include:

1. In-person interview
2. Or phone interview

The interview will be audio recorded. After the interview, the digital recording will be transcribed, which means they will be typed exactly as they were recorded, word-for-word, by the researcher. The digital recording will be deleted after transcription.

IRB Approval Date: FEB 18 2014

1

IRB Expiration Date:

# UT Arlington

## Informed Consent Document

### **POSSIBLE BENEFITS**

A benefit for you as a participant is the self-evaluation on the effect of your education on your professional practice.

### **POSSIBLE RISKS/DISCOMFORTS**

Any information or comments regarding you will be kept private for this study only and not shared with anyone else. You have the right to quit any study procedures at any time at no consequences and may do so by informing the researcher.

There are no perceived risks or discomforts for participating in this research study. Should you experience any discomfort please inform the researcher, you have the right to quit any study procedures at any time at no consequence.

### **COMPENSATION**

There is no compensation arranged for participation in this study.

### **ALTERNATIVE PROCEDURES**

There are no alternative procedures offered for this study. However, you can elect not to participate in the study or quit at any time at no consequence.

### **VOLUNTARY PARTICIPATION**

Participation in this research study is voluntary. You have the right to decline participation in any or all study procedures or quit at any time at no consequence.

### **CONFIDENTIALITY**

Every attempt will be made to see that your study results are kept confidential. A copy of this signed consent form and all data collected including transcription from this study will be stored in room #417 in the School of Architecture at The University of Texas at Arlington for at least three (3) years after the end of this research and will be destroyed thereafter. The result of this study may be published and/or presented at meetings without naming you as a participant. Additional research studies could evolve from the information you have provided, but your information will not be linked to you in anyway; it will be anonymous. Although your rights and privacy will be maintained, the Secretary of the Department of Health and Human Services, the UTA Institutional Review Board (IRB), and personnel particular to this research have access to the study records. Your records will be kept completely confidential according to current legal requirements.

IRB Approval Date: FEB 18 2014

IRB Expiration Date:

**UT Arlington  
Informed Consent Document**

They will not be revealed unless required by law, or as noted above. The IRB at UTA has reviewed and approved this study and the information within this consent form. If in the unlikely event it becomes necessary for the Institutional Review Board to review your research records, the University of Texas at Arlington will protect the confidentiality of those records to the extent permitted by law.

**CONTACT FOR QUESTIONS**

Questions about this research may be directed to Alicia Rivera at 469-236-6945 or Dr. Taner Ozdil at 817-272-5089. Any questions you may have about your rights as a research participant or a research related injury may be directed to the chairperson of the UT Arlington Institutional Review Board at 817-272-3723 or to the Office of Research Administration; Regulatory Services at 817-272-2105 or [regulatoryservices@uta.edu](mailto:regulatoryservices@uta.edu)

**As a representative of this study, I have explained the purpose, the procedures, the benefits or the risk that are involved in this research study:**

---

**Signature and printed name of principal investigator or person obtaining consent** **DATE**

I can be reached at 469-236-6945 or you can email me at [alicia.rivera@mavs.uta.edu](mailto:alicia.rivera@mavs.uta.edu)

**CONSENT**

By signing below, you confirm that you are 18 years of age or older and have read or had this document read to you. You have been informed about this study's purpose, procedures, possible benefits and risks, and you have received a copy of this form. You have been given the opportunity to ask questions before you sign, and you have been told that you can ask other questions at any time.

You voluntarily agree to participate in this study. By signing this form, you are not waiving any of your legal rights. Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may discontinue participation at any time without penalty or loss of benefits, to which you are otherwise entitled.

---

**SIGNATURE OF VOLUNTEER** **DATE**

IRB Approval Date:

FEB 18 2014

IRB Expiration Date:

Appendix C

Email Script for Participation Request

Email Subject: Participation in graduate landscape architecture research REQUEST

Dear Participant:

My name is Alicia Rivera and I am a graduate student in the Program of Landscape Architecture at The University of Texas at Arlington. I am working on my master's thesis under the direction of Dr. Taner Ozdil.

The title of my research is "Assessing the value of multiple design degrees for landscape architects: Learning from professionals in North Texas". The purpose of this study is to assess the value of having multiple design degree background among landscape architects, particularly the ones practicing in North Texas. We will be looking at the effect your design degree had on your graduate education and your multiple design degrees in your professional practice.

I obtained your information either through your company website or from key informants who recommended you.

Could you let me know if you would be available to participate in the research either through a face-to-face interview or a telephone interview? I will need an hour of your time and I can generally adjust to fit your schedule. If you are interested in participating in the interview, then you can request to have the consent form and further information about the interview emailed to you ahead of schedule. If we have a face-to-face interview, then I will bring a consent form to be signed before the interview. If we have a telephone interview, then I will read the consent form and will receive a verbal consent before starting the interview.

If you have any questions then please contact me at 469-236-6945 or email at

[alicia.rivera@mavs.uta.edu](mailto:alicia.rivera@mavs.uta.edu)

Thank you very much for your time.

Sincerely,

Alicia Rivera

Appendix D  
In-person Script for Interviews

Thank you for your participation in this research study. As indicated previously during the recruitment process, the purpose of this study is to assess the value of having multiple design degree background among landscape architecture professionals, particularly the ones practicing North Texas.

Please answer each of the questions to the best of you knowledge and ability:

#### Part I. Profile

1. What degrees have you received?
2. What college and university did you receive these degrees from?
3. How long have you been in the professional practice?
4. What is your job title?

#### Part II. In-depth Interview Questions

1. What knowledge did you gain in your other design degree that affected your landscape architecture education?
2. What similarities did you experience between each design degree while in school?
3. What are the major differences between each design degree you have completed?
4. Did your multiple design education affect your qualifications (knowledge and skills) for your current position?
5. Do you have anything else to add?

#### Optional (follow-up) Questions:

1. What technical skills did you acquire in your multiple design background that have become instrumental for your professional practice?
2. Does your multiple design education affect how you communicate with other design disciplines?
3. Does your multiple design education affect your role in multi-discipline projects?
4. Others depending on emergent responses from participants.

Thank you for your participation in this study. Your time and information have been invaluable to this research study. Please feel free to contact me if you have any questions.

Appendix E

Telephone Script for Interviews

Telephone script:

Hello \_\_\_\_\_,

My name is Alicia Rivera. I am a student in the Program of Landscape Architecture at The University of Texas at Arlington. I am currently working on a thesis titled  
**ASSESSING THE VALUE OF MULTIPLE DESIGN DEGREES FOR LANDSCAPE ARCHITECTS: LEARNING FROM PROFESSIONALS IN NORTH TEXAS.**

As part of my thesis process, I would like to interview you. You were referred to me because your education meets the criteria for this research study. My thesis study involves asking a couple of questions, assessing the value of multiple design degrees for landscape architects. Are you willing to be a participant in my research process?

If no:

Thank you for your time. Have a good day.

If yes:

Do you have some time to answer the couple questions over the phone today? Or would you prefer to schedule another telephone or in-person appointment?

If rescheduled:

What time and day can I call for our next appointment?

If today:

Thank you for your willingness to participate. I will now start the digital recording and read the consenting language to you to ask for your verbal consent.

I have now begun the recording process:

(Consent Form read out loud)

**CONSENT**

By choosing to continue with the interview, you confirm that you are 18 years of age or older and have read or had this document read to you.

You have been informed about this study's purpose, procedures, and possible benefits and risks. You have been given the opportunity to ask questions before continuing, and you have been told that you can ask other questions at any time.

You voluntarily agree to participate in this study. By choosing to continue with the interview, you are not waiving any of your legal rights. Refusal to participate at any point will involve no penalty or loss of benefits to which you are otherwise entitled.

Do you consent to continue with the interview?

Today is \_\_\_\_\_, Month, day, 2014

The time is \_\_\_\_\_

I am interviewing \_\_\_\_\_

From \_\_\_\_\_

We will now go through the interview questions:

#### Part I. Profile Questions

1. What degrees have you received?
2. What college and university did you receive these degrees from?
3. How long have you been in the professional practice?
4. What is your job title?
5. What is your current job description?

#### Part II. In-depth Questions

1. What knowledge did you gain in your other design degree that affected your landscape architecture education?
2. What similarities did you experience between each design degree while in school?
3. What are the major differences between each design degree you have completed?
4. Did your multiple design education affect your qualifications (knowledge and skills) for your current position?
5. Do you have anything else to add?

#### Optional (follow-up) Questions:

1. What technical skills did you acquire in your multiple design background that have become instrumental for your professional practice?
2. Does your multiple design education affect how you communicate with other design disciplines?
3. Does your multiple design education affect your role in multi-discipline projects?
4. Others depending on emergent responses from participants.

Is there anything else you would like to add that might contribute to my research on the topic?

Do you have any questions for me?

Thank you for your time, insight, and knowledge. You have been very helpful to my research process.

Good bye.

## References

- ASLA (2013). American Society of Landscape Architecture: 2013 Survey of Graduating Students. Lewis & Clark. Raleigh, NC. Retrieved on December 2013 from [http://www.asla.org/uploadedFiles/CMS/Education/Career\\_Discovery/2013%20ASLA%20Graduating%20Students%20Report%200%202.pdf](http://www.asla.org/uploadedFiles/CMS/Education/Career_Discovery/2013%20ASLA%20Graduating%20Students%20Report%200%202.pdf)
- ASLA (2012). American Society of Landscape Architecture: 2012 Survey of Graduating Students. Lewis & Clark. Raleigh, NC. Retrieved on April 2014 from [http://www.asla.org/uploadedFiles/CMS/Education/Career\\_Discovery/2012\\_ASLA\\_Graduate\\_Report.pdf](http://www.asla.org/uploadedFiles/CMS/Education/Career_Discovery/2012_ASLA_Graduate_Report.pdf)
- ASLA (2011). American Society of Landscape Architecture: 2011 Survey of Graduating Students. Lewis & Clark. Raleigh, NC. Retrieved on April 2014 from [http://www.asla.org/uploadedFiles/CMS/Education/Career\\_Discovery/2011%20ASLA%20Graduating%20Students%20Report%200.2.pdf](http://www.asla.org/uploadedFiles/CMS/Education/Career_Discovery/2011%20ASLA%20Graduating%20Students%20Report%200.2.pdf)
- ASLA (2010). American Society of Landscape Architecture: 2010 Survey of Graduating Students. Lewis & Clark. Raleigh, NC. Retrieved on April 2014 from [http://www.asla.org/uploadedFiles/CMS/Education/Career\\_Discovery/2010\\_ASLA\\_Graduate\\_Report.pdf](http://www.asla.org/uploadedFiles/CMS/Education/Career_Discovery/2010_ASLA_Graduate_Report.pdf)
- Beardsley, John (2007). Mario Schjetnan, Landscape, Architecture, and Urbanism. Washington, D.C.: Spacemaker Press, LLC.
- Burden, Ernest (2002). Illustrated Dictionary of Architecture. New York: McGraw-Hill.
- Ching, Francis D.K. (2007). Architecture: Form, Space, and Order. New York: John Wiley & Sons, Inc.
- Hirsch, A. B. (2012). Facilitation and/or manipulation?: Lawrence Halprin and 'taking part'. *Landscape Journal: Design, Planning, and Management of the Land*, 31(1), 117-134. doi:10.3368/lj.31.1-2.117

- LAAB (2014). LAAB Meeting Report. Retrieved on April 2014 from  
[http://www.asla.org/uploadedFiles/CMS/Education/Accreditation/SummaryReport  
Spring2014.pdf](http://www.asla.org/uploadedFiles/CMS/Education/Accreditation/SummaryReportSpring2014.pdf)
- Lynch, Kevin (1960). *The Image of the City*. Cambridge, Massachusetts: The MIT Press.
- Mann, W.A. (1993). *Landscape Architecture: An illustrated history in timelines, site plans, and biography*. New York: John Wiley & Sons, Inc.
- Mann, W.A. (1981). *Space and Time: In Landscape Architectural History*. Washington, D.C.: Landscape Architecture Foundation.
- Morrow, Baker H. (1987). *A Dictionary of Landscape Architecture*. New Mexico: University of New Mexico Press Albuquerque.
- NAED (2014). National Academy of Environmental Design (2014): Retrieved March 2014 from <http://www.naedonline.org/>
- Reid, Grant W. (2002). *Landscape Graphics: Plan, Section, and Perspective Drawing of Landscape Spaces*. New York: Watson-Guptill Publications.
- Rivera, A., Ozdil, T. (March 2014). *Assessing the Value of Dual Design Degrees for Landscape Architects: Learning from Professionals in North Texas*. CELA-2014. Proceedings. Baltimore, Maryland.
- Robinette, Gary O. (1973). *Landscape Architectural Education*. Iowa: Kendall/Hunt Publishing Company.
- Robinette, Gary O. (1977). *Landscape Planning for Energy Conservation*. Virginia: Environmental Design Press.
- Sharky, B.G. (1994). *Ready, Set, Practice*. New York: John Wiley & Sons, Inc.
- Sprin, Anne W. (1998). *The Language of Landscape*. Yale University Press.
- Swaffield, S. (2002). Social change and the profession of landscape architecture in the twenty first century. *Landscape Journal* 2002, 21:1, 183 - 189.

- Taylor, Nigel (2007). *Urban Planning Theory since 1945*. London, Sage.
- Taylor, Steven J., Bogdan, Robert (1998). *Introduction to Qualitative Research Methods: A Guidebook and Resource*. New York: John Wiley & Sons, Inc.
- Thomas, Randall (ed.) (1999). *Environmental Design: An Introduction for Architects and Engineers*. New York: E & FN Spon.
- Twombly, Robert (2010). *Fredrick Law Olmstead: Essential Texts*. New York: W.W. Norton & Company, Inc.
- Vision North Texas (2009). *Regional Choices for North Texas*. Technical Report. Dallas, Texas Retrieved from  
[http://www.visionnorthtexas.org/regionalchoices/VNT\\_Regional\\_Choices.pdf](http://www.visionnorthtexas.org/regionalchoices/VNT_Regional_Choices.pdf)
- Walker, Peter, Simo, Melanie (1996). *Invisible Gardens: The Search for Modernism in the American Landscape*. Cambridge, Massachusetts: The MIT Press.
- Wall, Ed, Waterman, Tim (2010). *Basic Landscape Architecture: Urban Design*. Casa Postale, Switzerland: AVA Publishing SA.
- Wang, Thomas C. (1996). *Plan and Section Drawing*. New York: John Wiley & Sons, Inc.

### Biographical Information

Alicia Rivera was born and raised in the Oak Cliff town of Dallas, Texas. Alicia is a first generation Mexican American and First Generation College graduate in her family. In high school Alicia began her journey into the design field in the architecture program. She graduated from The University of Texas at Arlington with a Bachelor of Science in Architecture in 2007, just shortly after getting married earlier that year. She then chose to pursue a Master of Landscape Architecture at The University of Texas at Arlington.

Alicia, along with her husband, has started their small landscape business company in the Dallas Fort Worth area. She resides in Dallas, Texas with her husband, two boys, and expecting the three addition to the family soon, another boy. Alicia anticipates that through both of her educational degrees, she will apply that knowledge to get licensed in both disciplines and further develop their business.