

# A Beginner's Mind

**PROCEEDINGS**

**21st National Conference  
on the Beginning Design Student**

**Stephen Temple, editor**

**Conference held at the  
College of Architecture  
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Situating Beginnings  
Questioning Representation  
Alternative Educations  
Abstractions and Conceptions  
Developing Beginnings  
Pedagogical Constructions  
Primary Contexts  
Informing Beginnings  
Educational Pedagogies  
Analog / Digital Beginnings  
Curriculum and Continuity  
Interdisciplinary Curricula  
Beginnings  
Design / Build  
Cultural Pluralities  
Contentions  
Revisions  
Projections

*Offered through the Research Office for Novice Design Education, LSU, College of Art and Design, School of Architecture.*

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Printed proceedings produced by Stephen Temple, Associate Professor, University of Texas San Antonio.

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Published by:  
University of Texas San Antonio  
College of Architecture  
501 West Durango Blvd.  
San Antonio TX 78207  
210 458-3010  
fax 210 458-3016

Library of Congress Cataloging-in-Publication Data

Temple, Stephen, editor

A Beginner's Mind: Proceedings of the 21st National Conference on the Beginning Design Student /  
edited and compiled by Stephen Temple

1. Architecture - Teaching 2. Architecture - Design 3. Design - Teaching

**ISBN 0-615-13123-9**

# Questioning Students' Beliefs about the Design Disciplines

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## Introduction

What is in the beginning student's mind? The beginning design student arrives at the first year studio with beliefs about the design disciplines that they have arrived at somehow, perhaps by some inner knowing or by external influences such as television, friends or teachers. Their presence in the first year studio must also mean that they believe that what describes a designer also describes them. What beliefs are held in the mind of the beginning student about design and the characteristics of excellent design?

Questions about what constitutes an excellent designer are complicated by the fact that students at my university may choose the study of three distinct design disciplines; architecture, interior design and industrial design. The distinction of what describes the practice and study of one design discipline from another, an interior designer from an architect might appear obvious; the former primarily concerned with the inside and the latter outside. But, as professional designers the distinction and the answers will surely vary dramatically. Ask a beginning design, "What is the distinction between an interior designer and an architect?" and see what is revealed in the beginning students' mind.

To further complicate the attempt to understand the beginning students' belief about what describes a designer is the attempt to understand exactly what the faculty believes describes an excellent designer. This is exactly what was recently attempted at my university, where the disciplines of architecture, interior design and industrial design are administratively aligned.

Students were asked to respond to a survey that sought to distinguish characteristics of design excellence as applied to the practice or study of interior design and separately the characteristics as applied to the field of architecture. The responses were from a survey that was compiled using descriptors obtained from faculty writings on the topic of 'design excellence.' The responses by the students begin to reveal what the beginning student believes to be true for those who practice not only their chosen discipline, but also what they believe to be true for a related design discipline.

This paper attempts to reveal beliefs held in the mind of beginning design students by comparing their beliefs to those held by their faculty, and by comparing the factors that influence those beliefs, including gender, field of study, and year of study. Described here are the results of a survey concerning beliefs among 1<sup>st</sup> through 3<sup>rd</sup> year interior design and architecture students about the characteristics that describe the individuals who study and practice the design disciplines of architecture and interior design. The results of the survey show that there was agreement among interior design and architecture students about what defines the disciplines. It also suggests that beliefs change from 1<sup>st</sup> to 3<sup>rd</sup> years, and that factors of gender, discipline of study and year of study play roles in those beliefs.

## Getting to Beliefs

How does one create a survey that seeks to describe the design disciplines? What are the words that describe them and are the words different for each discipline? Also, how can personal biases be prevented from interfering with meaningful results? Initially, I looked at resources outside of my school for inspiration, taking advice from the director of the internal review board at my school and looked at already established surveys rather than create my own.

Feminist author and Professor Sandra Bem had created the BSRI (Bem Sex Role Inventory), which served as a starting point for my own survey. In the self-reporting survey, professor Bem used 20 feminine, 20 masculine and 20 gender neutral descriptors to provide a measurement of psychological androgyny. Although I was not interested specifically in androgyny, the use of 20 characteristics to define a group seemed a compelling method that would be later by used in my survey.

An initial attempt on my part to find the words to describe the disciplines did more to reveal my own biases and prejudices than provide an understanding about the design disciplines. Looking outside of myself, I found through conversations with colleagues that within the School of Architecture and Design, the faculty had produced a resource that I could tap into for descriptors that define architecture and interior design.

Each semester the faculty in the design programs of architecture, interior design and industrial design meet to review the student work, develop strategic plans, or work on other issues of importance to the programs. During one of these end-of-the-semester sessions, we asked ourselves, "What constitutes design excellence?" Each faculty member from the three disciplines submitted papers describing 'design excellence,' in order to make clear amongst ourselves those characteristics. The papers represented a significant range of writing styles and position statements, yet on many of the characteristics that define design excellence, the faculty was in agreement. These definitions of design excellence were not based on the area of design practiced to the gender of the practitioner, but reflected a general level of excellence independent of variables of gender or field of study. If we were in agreement on some of what design excellence in design, how would our student define design excellence? Would they be in agreement with us, would they define the disciplines differently, would the definitions vary by gender, and would they vary as student move into upper levels?

From the writings of the faculty about design excellence, twenty descriptors were selected for a survey to be given to students in 1<sup>st</sup> through 3<sup>rd</sup> years of interior design and architecture. The descriptors selected were those that repeatedly appeared in faculty writings about design excellence.

### **About the Survey**

The SBIDAS survey (Student Beliefs about Interior Design and Architecture Survey) was designed to determine what attributes students of interior design and architecture believe describe the students and/or practitioners of those disciplines. The survey is composed of 20 descriptors; the same descriptors that the faculty said define 'design excellence.' The survey has 40 responses; 2 responses to each of the 20 descriptors, one response for how well students believe the word describes someone who studies or practices 'architecture and another response for how well the word describes the study or practice of 'interior design.' Students rank how well the work described the discipline on a Likert-type scale from 'strongly disagree' to 'strongly agree.' The beginning portion of the survey collects demographic information including gender, major, and year of study of the respondent.

On a single day in the fall of 2004, the survey was administered to 137 students of architecture and interior design during their studio periods. Students were both male and female and were in 1<sup>st</sup> through 3<sup>rd</sup> years of design studio. Fourth and fifth year students were excluded from the survey. The results were collected and taken to the university statistician. Since the author of this paper had no experience analyzing a survey for statistical significance, this university resource was used for that purpose.

### **Survey Results**

The first information that was significant was that the survey demographics closely compared to those of the School of Architecture and Design in both the distribution of gender of

the respondents and the distribution of majors. The male to female enrollment of architecture and interior design students in the School of Architecture and Design is 51% male and 49% female. The distribution of respondents to the survey was 48.5% male and 51.5% female, which is very close to the enrollment distribution. The enrollment of architecture students to interior design students at the university is 69% architecture student to 31% interior design students. The distribution for respondents to this survey was 66% architecture students to 34% interior design students. Again, this distribution was a close match to the distribution by major of students enrolled in the school. The close comparison by gender and major of the sample group to the general population in the School of Architecture and Design suggest that the responses will provide an accurate description for the whole student body.

### **Analyzing the Data**

Data from the surveys was analyzed in 2 ways: by ranking and by testing for statistical significance. Statistical significance was determined using the t-test method to compare responses between 2 groups and the PROC GLM method to compare responses between 3 groups. When ranking was used, the responses were ranked for highest and lowest responses for both architecture and interior design students in three areas; area of discipline, gender and year of study. The ranked responses are listed in TABLE 1 and reveal some interesting areas of agreement between the student respondents.

### **Rankings by First-Year Students**

Since the focus of this conference is on the beginning mind, the responses at the first year are of primary interest. When first year students were surveyed, the highest response rate among all 1<sup>st</sup> year students was identical for the descriptors for 'architects' and interior designers.' *Creative*, *Passionate*, and *Skilled* received the top response rate when describing the two disciplines. For the lowest response rate among all 1<sup>st</sup> year students in describing 'architects' and 'interior design' the students were also in agreement in two descriptors; *Pragmatic* and *Playful*. When looking at the responses of all respondents (1<sup>st</sup> through 3<sup>rd</sup> years, both disciplines) for highest ranking for 'architects' and 'interior designers,' *Skilled* and *Creative* are two of the top three responses. When looking at response rate among all respondents for the lowest ranking for describing 'architects' and 'interior designers' there is no agreement. The responses are different for describing the two groups. Do these results suggest that architects and interior designers are not pragmatic and playful or do students believe that these characteristics are not as important?

Some descriptors made noticeable shifts between first and third-year respondents. For words describing 'architects,' *Poetic* made the biggest shift between the first and third years. For all first respondents *Poetic*, when describing 'architects,' received the fourth lowest response rate, but by the third year *Poetic* received the third highest response rate. Among the words that describe 'interior designers,' *Playful* made the biggest shift between first and third years. For all first year respondents *Playful*, when describing 'interior designers,' received the third lowest rate, but by third year *Playful* received the third highest response rate. Does this shift in importance suggest that the university or studio environment plays some role? For example, at my university the third-year architecture studio professor uses the word and values the 'poetic' in design. The value placed on the poetic by this professor increases the value of the poetic in describing 'architects' by the time students are in their third year of study. Although I am not certain of any evidence that would suggest the rise in *Playful* as a descriptor for interior design, a similar condition may be occurring.

## Rankings by Gender

None of the other data in the survey is analyzed specifically for first year, but is analyzed by other groups. Looking at response rated by gender, first through third year responses are grouped together. Rankings by gender reveal agreement on what describes 'architects' and 'interior designers.' *Skilled*, *Creative*, and *Knowledgeable* are the highest rated responses by both males and females when describing 'architects.' For describing 'interior designers,' *Creative* received the highest response rate among both males and females. *Passionate* was also ranked in the top three by both males and females for describing 'interior designers.' Examination of the responses in TABLE 1 reveals additional agreements and subtle changes in responses between students by gender, year of study and discipline. TABLE 1 follows and indicated response rankings for highest and lowest three responses by both architecture and interior design students by discipline of study, by gender and by year of study.

**TABLE 1:  
Responses to the Student Belief about Interior Design and Architecture Survey**

### ***By Discipline:***

Ranked highest about architects

<i>By architecture students:</i>	Creative	Knowledgeable	Skilled
<i>By interior design students:</i>	Skilled	Critical-thinker	Passionate

Ranked Lowest about architects

<i>By architecture students:</i>	Flexible	Sensitive	Patient
<i>By interior design students:</i>	Sensitive	Flexible	Playful

Ranked highest about interior designers

<i>By architecture students</i>	Creative	Passionate	Sensitive
<i>By interior design students</i>	Creative	Passionate	Articulate

Ranked lowest about interior designers

<i>By architecture students</i>	Pragmatic	Rigorous	Flexible
<i>By interior design students</i>	Analytical	Rigorous	Pragmatic

### ***By Gender:***

Ranked highest about architects

By males:	Skilled	Creative	Knowledgeable
By females:	Skilled	Creative	Knowledgeable

Ranked lowest about architects

By males	Flexible	Pragmatic	Sensitive
By females	Flexible	Sensitive	Patient

Ranked highest about interior designers

By males	Creative	Skilled	Passionate
By females	Creative	Passionate	Knowledgeable

Ranked lowest about interior designers

By males	Pragmatic	Rigorous	Flexible
By females	Pragmatic	Analytical	Rigorous

### ***By Year of Study:***

Ranked highest about architects

By 1 <sup>st</sup> year students	Creative	Passionate	Skilled
By 2 <sup>nd</sup> year students	Skilled	Knowledgeable	Creative
By 3 <sup>rd</sup> year students	Creative	Knowledgeable	Poetic

Ranked lowest about architects			
By 1 <sup>st</sup> year students	Pragmatic	Playful	Sensitive
By 2 <sup>nd</sup> year students	Flexible	Sensitive	Patient
By 3 <sup>rd</sup> year students	Flexible	Patient	Sensitive
Ranked highest about interior designers			
By 1 <sup>st</sup> year students	Creative	Passionate	Skilled
By 2 <sup>nd</sup> year student	Creative	Passionate	Articulate
By 3 <sup>rd</sup> year students	Creative	Responsive	Playful
Ranked lowest about interior designers			
By 1 <sup>st</sup> year students	Pragmatic	Playful	Ethical
By 2 <sup>nd</sup> year students	Patient	Pragmatic	Flexible
By 3 <sup>rd</sup> year students	Rigorous	Analytical	Risk-taker

**By all Respondents**

Ranked highest about architects	Skilled	Creative	Knowledgeable
Ranked lowest about architects	Flexible	Sensitive	Playful
Ranked highest about interior designers	Creative	Passionate	Skilled
Ranked lowest about interior designers	Pragmatic	Rigorous	Analytical

**Areas of Statistical Significance**

In addition to ranking, the data was examined for statistical significance when comparing response rates between students enrolled in architecture and interior design. Statistical significance was obtained by using t-test and PROC GLM procedures on the responses by the students.

**Comparison by Discipline of Study**

In t-tests, where responses were compared by discipline, statistical significance was found in 17 of the 40 responses. In 16 of the cases, the response rate for how well a descriptor defines 'interior designers' was significantly lower by architecture students when compared to the response rate of the same descriptor by interior design students. For example, using *Disciplined* to describe 'architects,' the response rates by both architecture and interior design students were relatively equal. Interior design students also used *Disciplined* to describe 'interior designers' and 'architects' at a relatively equal response rate. Statistical significance was found in the response rate by architecture students using *Disciplined* to describe 'interior designers.' In that case, architecture students' response rates for *Disciplined* to describe 'interior designers' was significantly lower than the rate that architecture students used *Discipline* to define 'architects.' Architecture students rated 'architects' higher for 16 of the 20 descriptors than they rated 'interior designers.' The 16 descriptors rated higher for describing 'architects' by architecture students when compared to 'interior designers' are:

<i>Responsive</i>	<i>Enthusiastic</i>	<i>Disciplined</i>	<i>Rigorous</i>
<i>Flexible</i>	<i>Poetic</i>	<i>Pragmatic</i>	<i>Ethical</i>
<i>Competent</i>	<i>Passionate</i>	<i>Skilled</i>	<i>Creative</i>
<i>Risk-taker</i>	<i>Critical-thinker</i>	<i>Articulate</i>	<i>Knowledgeable</i>

The only case where the response rate to the descriptors was lower for describing 'architects' when compared to interior designers' by interior design students was for Playful. What does this suggest about the respondents? Why would architecture students rate themselves at a significantly higher level than interior design students for 16 of the 29 descriptors? Is there a studio culture in the design building that elevates one discipline over the

other by the students? Is there a subtle elevation of status by faculty and administrators of architecture, that students sense which is reflected in the survey results?

### **Comparison by Gender**

The next area where the t-test was performed was when comparing the response rates by gender. Statistical significance was found in 9 of the 40 responses by gender. In 6 of the 9 responses the male response rate for words describing 'interior designers' was lower than the female response rate. The 6 descriptors that males ranked at a lower rate for describing 'interior designers' than did females were:

<i>Rigorous</i>	<i>Competent</i>	<i>Passionate</i>
<i>Skilled</i>	<i>Creative</i>	<i>Knowledgeable</i>

For 2 of the descriptors that define 'architects' the response rate by males was lower than the rate of response by females. The 2 descriptors that females ranked at a higher rate than males when describing 'architects' are:

<i>Rigorous</i>	<i>Playful</i>
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### **A Final Comparison**

In the initial data analysis, a group of first year responses was omitted. This omission left the sample group of first year students at 37 respondents. In order to get a better picture of first year, a second data analysis was run for first year students that included the 24 first year responses originally omitted. From this group of 61 first year respondents, 31 were males, and 31 females, however 48 were architecture students and 13 were interior design students. In order for a statistical analysis to be valid, the groups tested have to be around 30 each. That meant that data comparing responses by gender would tend to be valid, which those that compared discipline of study would be invalid for this sample group. When t-tests were run for the gender comparison and for discipline comparison, no statistical significances were found.

The comparison of data for gender using only first year respondents yielded no statistical significance, yet in the earlier t-test, which used data from first through third year respondents, significance was found for nine of the forty descriptors. I believe that this change for no significance at the first year, to significance for nine response areas using all respondents reveals something. Using data for the first year only, both genders describe the disciplines on relatively equal terms. But, when using data from first through third years, students define the disciplines on relatively unequal terms. I believe that this change in response rate by gender between first year responses compared to the first through third years responses, suggests that the school culture contributes to changes in beliefs among students by gender.

### **Conclusion**

What conclusions or implications can be drawn from the data analysis from the survey responses? The data shows that first year students, whether they be architecture or interior design students are in agreement about what describes the design disciplines as well as what does not describe the disciplines. I believe that this suggests that students come into design school with a view of the design disciplines that is relatively equal. The data also suggests that the descriptors that define the disciplines are rated at different levels based on gender and year of study. This is illustrated by data that shows that architecture students rate descriptors for 'architects' at a higher rate than they rate the same descriptors for 'interior designers,' yet interior design students rate 'architects' and 'interior designers' at relative equal rates. Do architecture students believe that they better represent the descriptors than do the interior design students? I believe that changes in beliefs between the design disciplines occur during their design education and that some aspect of their education contributes to this. Whether it is the language used by their professors, whether it is a subtle preference expressed for one discipline over the other, I

don't know. Perhaps the twenty words selected for the survey are skewed toward one discipline or the other. Whatever the reason, it is hoped that the results of this survey can open the door for a dialogue that can enhance the education of the beginning design student.

### **References**

Bem, Sandra. *The Lenses of Gender: Transforming the Debate on Sexual Inequality*. New York: Yale University Press, 1993

Self, Joe. "Inside Outside Coherence – The Sense of Architecture Verses the Senses of Interior Design," *Proceedings of the 19<sup>th</sup> National Conference on the Beginning Design Student*, (2003):101-106.