# Dominant Interests in the Personality of Industrial Design Students within Their Educational Practice

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#### **Abstract**

The purpose of this paper is the study of the dominant interests of personality in Industrial Design students at the Autonomous University of the State of Mexico. A scale developed by Allport, Vernon, and Lindzey entitled *Study of Values. A scale for measuring the dominant interests of personality* was used. This scale was applied to a sample of 152 students including men and women of different semesters of the degree enrolled in the first 2015 term. The proven assumption is that the dominant values are the economical, as well as the theoretical one. A striking finding is that the reasons associated with religious, social and political values are the least met.

Keywords: allport, design, industrial, interests, personality

# 1. Introduction

The main objective of this paper is to present a personality analysis of students from the Industrial Design degree of the School of Architecture and Design of the Autonomous University of the State of Mexico. There are several approaches within the psychology for personality studies, where we will consider psychodynamic theory, cognitive theory, behavioural theory, social learning theory, information processing theory and trait theory (Pervin, 1984). Trait theory was chosen for this study as proposed by Allport, using the instrument designed by him: *Study of Values. A scale for measuring the dominant interests in personality*.

Regarding psychology personality, the main focus of its study relies in the fact that it intends to explain how a personality is presented to the world, the way people conduct themselves according to their actual context. There is a relationship between person and personality, although many times in ordinary language they are considered as synonyms even though they are not: the notion of person refers to freedom, rationale and the decision-making ability of each individual, on which the term pointed out by Boecio in the philosophical context, has been the most widely influential. It defines a person as *naturae rationalis individua substantia*, that is, qualities that provide identity to each individual. A person is someone who is self-conscious, free to act, and different to the rest. The notion of personality is studied throughout psychology which also defines, describes and studies its dynamics, as well as analyzing its development. Etymologically speaking, personality comes from the Greek *prosopon* and from the Latin of the word *personae* which means to sound through, and that deals with the role that each actor performs in a play; therefore, person is a synonym of character. Cloninger (2003) defines personality as the inner causes that underlie individual behavior, and the person's experience is defined as that which differentiates one person from another and is manifested in each individual's development. Palaino, on the other hand, says that personality can be understood as the set of accessibilities, qualities and personal characteristics allowing a person to be recognized as he is.

Allport's Trait Theory is set between the profound analysis of psychoanalysis and the not so deep behaviourist analysis. Trait Theory, as pointed out by Cabanyes (2003) corresponds to the model of internalism as it shows special emphasis in the person's characteristics comprising their personality. Those characteristics are the features that are understood as stable dispositions from the person.

To Allport, personality is something unique as it represents the individual. That is why, when speaking about traits we are not referring to the set of common traits, as it is established by the cultural vision of the personality

or the psychological approach of the roles that try to identify traits as a sociocultural developments. Still, it is about individual traits that allow acquainting the person from what he does rather from what he is, reason why Allport opposes to generalist approaches:

"...I refer to the "common trait" approach and demonstrate that it is inferior to the "individual trait" approach, which is more complex although more educational. The former covers its need upon standard variables; the later tries to discover the vital points of organization within individual lives" (Allport, 2015, p. 52).

Allport's Trait Theory provide personality knowledge from the individuality; that is, from a personalized scope. Each person has a trait that distinguishes them from another, reason why traits are unique to each individual as they are individualized entities. In this sense, personality to Allport is something that belongs to each individual: "personality is a dynamic organization, within each individual, of the psychophysical systems that determine its unique adjustments towards the environment" (quoted by Cloninger, 2003, p. 202). Personality is constantly changing and evolving in each person, according to his affections, feelings, emotions and behavior which lead them to act in different ways according to each environment. That is why, we insist on the fact that a person has become whatever he is because of what he does, and not as generally believed where a person acts as he does because of what he has become. What a person really is throughout experience, Allport calls it the *propium*, which is developed throughout a person's life and is made of all the owned particular dispositions. The *propium* can be called the "ego".

The dispositions that a person possesses are part of his *propium*'s functional autonomy, as throughout actions in the present a person's true being is manifested. The current reasons and interests of a person are independent to the previous reasons and interests, there is a functional autonomy which continues on being when the habits or conducts acquired stop being functional, though keep on being as well as a functional autonomy linked to the reasons, interests and values of the person in the present context. Values are core to the functional autonomy on its two manifestations, of which we provide two examples. A student who chooses to study industrial design may do so due to some influence from the father, who is an industrial designer, remaining in his studies not because of the influence from his father, but due to the usefulness for him of such studies; thus, reasons change from a social to an economical reason. Another option could be that he became enrolled into industrial design due to an aesthetic interest on drawing, and throughout the career he may be more motivated because of the theory more than for the aesthetics, his initial reason changed as his career evolved.

Allport uses Spranger's typology (1966) for the study of values throughout dominant interests, which elaborates from the personality philosophy the six types of ideals: theoretical being, economical being, aesthetic being, social being, political being and religious being. An individual is considered as a resting structure of which constructive law we can consider values as something decisive in life. Therefore values are essential in personality; Spranger quotes a common phrase to enlighten the relevance of values in the personality of individuals: you will be judged by the values you keep.

To each type of being corresponds a sense sphere which allows to know the person: that is, as Spranger writes, the person is known from the interpretation of the sense spheres: "someone else's personal life can only be known by interpreting, according to its sense, the spiritual acts the other performs starting from its particular situation" (1966, p. 88). The particular structure is a cornerstone to acknowledge the individual's personality, as sense spheres are manifested in there under the regulatory laws that guide the human spirit: the economical sense under the principle of the minimal effort, the aesthetics sense with the law of the form principle, the sense of science with the law of the foundation principle, the political sense with the law of the judicial and regulatory will, the social or community sense with the principle of loyalty, and the religious sense with life's whole normativity.

There is a tight relationship between Allport's conception of personality and Spranger's typology, as for both, individuality is the starting point to acknowledge what a person is based on its experiences. Another meeting point is that both are located in a theoretical approach of traits and dispositions, Spranger from the personality philosophy point of view and Allport (1965; 1970) from the psychology of personality, the conception of the sense spheres along with its laws historically built, and as guides to the totality of the spirit that are complemented with the conception of functional autonomy. Values constitute the spheres of sense of the human spirit on its particularity recognizable through experience on how he becomes an individual while leaving a trace of his personality. His dominant interests are manifested in different spheres according to what is useful, to the form, to the foundation, to judicial will, to fidelity as a social being, and life's whole normativity essential to each type of being.

Allport's test has been applied in different university contexts where different results have been met, of which we can mention Gonzales (2005) study from Zulia University in Venezuela, where he found on a group of 180 architecture students where dominant interests were different as men looked to an aesthetic, social and religious life, while women looked for an aesthetic and religious one; these types of interests directly linked to the sense of being educated in architecture. Chavez (2011), when questioning on the values' profile of university students in Llanos University, Colombia, discovered that men show a tendency to social value and women to the theoretical and economical values. In a recent study, Garcia (2015) informs that for students of the Administration and Promotion of the University Works of a university in Mexico, the dominant values in men and women are the theoretical, economical and social ones. As established, there is a recent tendency in Colombia and in Mexico for university students towards theoretical, economical and social values. This provides a view of the current spirit in education grounds.

Our intention is to study the student's personality from their dominant interests, considering the results of previous investigations, as through the formative process the student builds their personality. Just as Spranger points out on his comprehension of education:

"Education, then, would be that cultural activity aimed to the essential personal education of subjects during their development. It is performed through authentic value contents of the given target spirit, although its sole purpose is to enlighten the autonomous normative spirit (an ideal ethical will of culture) in the subject". And it is understood that this overcoming of culture is possible by linking it to a system of values. Without classical yeast, there is no education (Spranger, 1966, p. 453).

On light of these, we ask ourselves on the values of industrial design students that are expressed throughout their educational practice. The starting point would be that education for industrial designers is developed according to a practical and economical profile, where the economical is the dominant interest linked directly to the productive sector on which the student from this degree can perform. According to these suppositions, we establish the following questioning: in the ranking of dominant interests of the industrial design student, is the economical interest placed on the first place, and on the last a religious sense? Is there a different way in which men and women may manifest their dominant values? What personality can be perceived starting from its own singularity in the context of its educational practice?

#### 2. Method

#### 2.1 Participants

For this project, a total of 77 enrolled students in the first, second, fourth, sixth, eighth, tenth, eleventh and thirteenth semesters of the Industrial Design career of the School of Architecture and Design of the Autonomous University of the State of Mexico participated. Of the total of students, 41 (53.2%) were women and 37 (46.8%) were men. The age of women is among 18 and 22 years, the age average was of 20; the age of men was among 18 and 28 years, the age average was of 21.

# 2.2 Design and Procedure

Exploratory study (Cruz del Castillo, 2015) performed through the application of a descriptive scale of the dominant interests of personality. The application of the scale was made at the end of the semester during school hours, in the morning and afternoon periods. Before the scale application, the objective of the relevance of the study was explained to the students, then we proceeded to give the instructions and finally they were told that the information was purely confidential for investigation means.

### 2.3 Instrument

The Study of Values. A Scale for Measuring Dominant Interests in Personality from Allport, Vernon and Lindzey was applied. The second edition in Spanish, which corresponds to the third edition in English, was used. This instrument has been applied from the day it was released and in later editions, to university students and to people who had a degree. This scale intends to measure the relative importance of the dominant interests and reasons in personality:

- 1) Theoretical. The dominant interest is the discovering of the **truth**, it represents an intellectual being dedicated to science and philosophy, holding an empirical, critical and rational spirit.
- 2) Economical. The dominant interest is the **usefulness**, it is a being who after its self preservation needs are met evolves to a pragmatic interest on business and commercialization, it has an idea that education should be

practical and the aesthetic is confused with luxury; socially it prefers to accumulate wealth than to have political power, and its religion is money.

- 3) Aesthetic. The dominant interest is form and harmony. It is a being who lets itself be taken by the perspective of elegance, symmetry and good shape, finding sense in the artistic chapters of its life, to it truth lies in beauty, it has a negative impression of the economy which does not value art, it is individualized and self-sufficient in a social way, power is not of interest to them and in religion they tend to confuse beauty with a religious experience.
- 4) Social. The dominant interest is **love**. Represents a loving, altruist and philanthropist being, it is kind. compassionate and generous as its aim is another being; it considers the theoretical, economical and aesthetic as cold and not human, love by itself is important for it in human relationships.
- 5) Political. The dominant interest is **power**. It is a being who wishes power, influence and personal titles above anything.
- 6) Religious. The dominant interest is **unity**. It is a mystical being and seeks for a cosmological and an higher relationship.

The scale is made up of several questions that comprise a variety of familiar situations; it is divided into two parts, in the first part two alternative answers are given and in the second part four. There are a total of 120 answers, 20 for each one of the values. The scale holds a trust average media with the transformation of z of .89 and there is a positive correlation between each question and the total score of its value.

For the interpretation Allport's established values are used, for men and women as shown in the following table (Table 1):

Table 1. High and low scores; outstanding higher and lower scores. Divided by value and by sex

VALUES	SEX	OUTSTANDING HIGH	HIGH	LOW	OUTSTANDING LOW
Theoretical	Н	>54	54-49	39-34	<34
	M	>45	45-41	31-26	<26
Economical	Н	>53	53-48	37-32	<32
	M	>48	48-43	33-28	<28
Aesthetic	Н	>47	47-41	29-24	<24
	M	>54	54-48	37-31	<31
Social	Н	>47	47-42	32-28	<28
	M	>51	51-47	37-33	<33
Political	Н	>52	52-47	38-34	<34
	M	>46	46-42	34-29	<29
Religious	Н	>51	51-44	32-26	<26
	M	>56	56-50	37-31	<31

On presenting results, we will not compare the situation between men and women. Our interest relies on describing the data obtained based on the measurement provided by Allport. For this reason, the reader will find an explanation of a comparative relationship.

One first observation in the following graph (Figure 1) is that men have an economical dominant value profile; they are interested on what is useful, on production, commercialization and goods consumption. They are pragmatic, interested in the business world. Theory is interesting to them on account of the technical, their concern for the aesthetic is according to what it may provide them with in the economical perspective, and form and design are interesting to them according to its usefulness.

A second registered observation is that the religious value related to the mystical and unity are not strong to them, neither is power nor the idea of seeing a being as an end to it. In due case, this type of being values the social as a means, the political as an economical power, and the religious as an economical security.

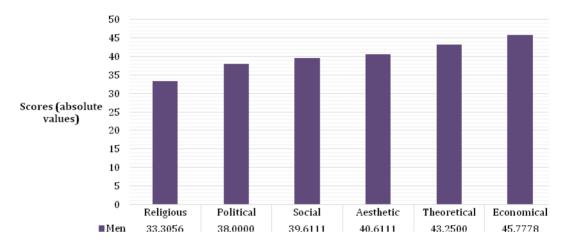


Figure 1. Average values men

We will now revise the case of women. There is some similarity with men in the dominant value which is the economical and in the hierarchy order where the religious value stays at the end of the other values. The industrial design students know how valuable the physical means is in order to satisfy the other needs. There is a connection between the political and the social on behalf of the values and goods which can be of economical worth, as registered in the following graph (Figure 2):

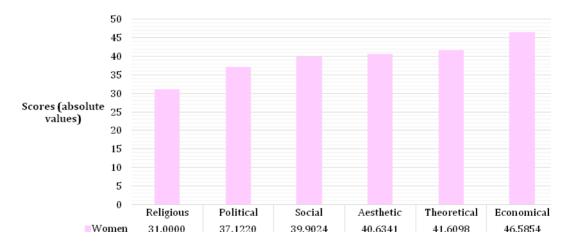


Figure 2. Average values women

Concerning the aesthetic as a dominant economical value, it can be seen as linked to its usefulness. For example, a piece of work which is product of an artistic task is thought as a means of exchange and consumption. It is set

before the value of applicability and usefulness as it is *measured* throughout the luxury it represents. The theoretical part links it to the pragmatic and the technical; the theoretical foundations are of interest by means of being a technical recommendation for the making of a product. Then, the technical is matched to the aesthetic with the sole intention of making products which catch the client's attention, as the final intention is to sell the product. As a supreme value, there is the economical which comprises everything, even the religious, God is seen as the provider of economic benefits as Spranger points out for this economical value: *it is perfectly understandable a sense of religiousness born from a purely economical spirit*. There is a link between the economical and the religious.

Now let's look at what happens particularly in men and women. Men in the economical and social values register in average the highest percentage in both 55.56%, in the outstanding highest the highest percentage corresponds to the aesthetical and to the social; and in the outstanding low the highest is the political and the religious, as shown in the following graph (Figure 3).

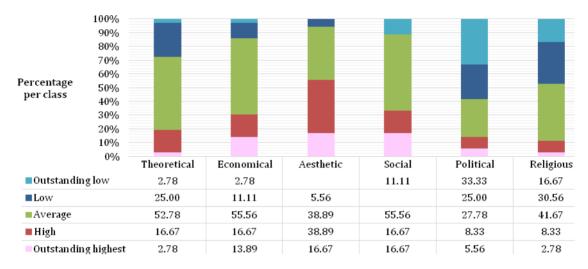


Figure 3. Scores per class: men

If we sum up the high and the outstanding high, we find that the aesthetic value is the highest as it adds up to 55.56% and then there is the social value with a 33.44%; which contrasts with the addition of the low and the outstanding lowest placed in the political value, making a total of 58.33%, and the religious low and outstanding lowest giving a total of 47.23%. It means that the aesthetic value has a high value from the idea of usefulness as it grants a high value of commercial trade; art has an economical value which is related to the form to which it is socially linked; the social value is related to the form with which it is socially linked; the social value is estimated because social life is translated according to its economical spirit as a business. The reasons to being socially close to the people are according to the usefulness as it represents, as it seeks to obtain economical rentability on its social relationships. It is now understood why the political is seen as the least favorite value, as well as the religious one, due to the fact that the political power is not interested in the economical power as its religion is the capital.

In contrast, women's values are separated value per value, and we find that the highest percentages are placed in the aesthetic value (53.66%) and in the social value (41.46%), there is a coincidence on men as shown in the following graph (Figure 4).

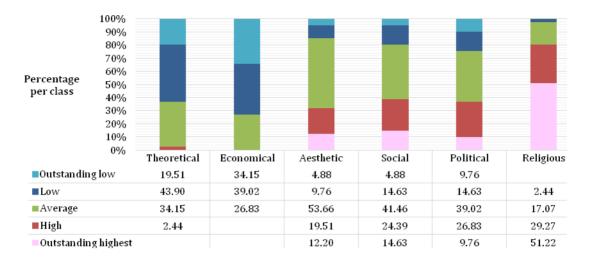


Figure 4. Scores per class: women

We registered a gap on what happens with men, as women are more pragmatic. If we add the averages on the high and the outstanding high the economical value is the highest with a 73.17%, followed by the theoretical value with a 63.41%. Another aspect far different to men, is that women are more away from religion if we add the low and the outstanding low which is a 80.49% followed by the social with a 39.03%.

If we contrast the economical value and the religious value, in women we find they are more interested on their economical welfare than on the spiritual one, and that power is not significantly useful, whereas the theoretical is; we can deduce that they seek to be trained technically in order to have an economical consolidation. The social and the aesthetic are placed in between of what is of interest to them, and what contributes directly to their economical development.

# 4. Discussion and Conclusions

The findings are connected logically to previous studies; university education according to the career's profile and the social and historical context. In this sense, students of industrial design tend to choose dominant interests linked to the usefulness and the technical, as it represents the job's demands, and in today's world it is required to provide practical solutions to the demands of the productive system, as the profit depends upon it related to innovative competitiveness.

According to these, the first conclusion is that the students of Industrial Design career from the School of Architecture and Design from the Autonomous University of the State of Mexico, are clearly different on their education as the dominant interests in women and men are economical and theoretical respectively. Thus, in educational practice students have a personality related to the useful and technical interests, which make a pragmatic vision of the industrial design career, something that cannot be considered as strange, due to the fact that the industrial design career is linked to the development of the productive, distribution, and consumption system. Progress of systems is requires, as well as products and tools that may arise from industrial design. The interesting thing about this is practical problems need to be solved under the interest of an economical benefit.

Another conclusion is that the hierarchy of values is similar in men and women, in a bottom-up view there is the religious, the political, the social, the aesthetic, the theoretical and the economical. The interests linked to aspects of community and spiritual life are at the bottom of the hierarchy are the least valued; this is similar to the study performed in Colombia; whereas the one in Venezuela is different as there is a more plural society which attends university. The religious option agrees with the culture of the country. This is relevant as aspects such as solidarity, common wellness, friendship, and empathy depend on the economical, which may reflect the spirit nowadays in Mexico.

The dominant of the economical interest for men is close to the aesthetics, whereas for women it is the theoretical interest which shows a difference between women and men, as for women the practical education linked to the economical interest is more important, and for men its education on the aesthetic provides more as a

means of attracting because of the beauty of the objects for the clients in search of economical achievements. Women seek for innovation in the sense of the technical construction part.

These results may be very useful to guide educational practice for the students by the teachers, as it allows adjusting the study plans and programs accordingly. In this case, the values placed below the hierarchy of the dominant interests in students. There is some weakness in values that are related on strengthening the communication and that affect social bonds. Social interests related to love for people, philanthropy and altruism are not a priority on students of industrial design. Affection and consideration is something irrelevant to them. If there should be any interest at all, it will only happen when there is some economical benefit to it. The saying: how much you have makes you who you are portrays perfectly our reality nowadays. If this is so, there are two questions to be answered: is the university educating on these interests or dominant values on its students, or is today's society establishing usefulness as a priority, which is then educating people and when they arrive to a university it has already been acquired as a dominant interest. If the answer is positive, then the processes of professional education in the university and in higher education are legitimizing the dominant spirit of interests of human beings for the economical. A reasonable doubt.

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