

*Tlemcen University*

**Faculty of Management and Economic**

**Reframing Leadership in the Algerian Universities to  
Participate More Effectively in the Economic Development**

*Dissertation submitted in partial fulfillment of the requirement for the degree  
of PhD in management sciences*

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## ABSTRACT

The focus of this study is the four frames of leadership by Bolman and Deal (1991). According to them effective leaders should approach organizational issues from four perspectives called “frames”. They classify these frames into four categories: structural frame, human resource frame, political frame, and symbolic frame. Bolman and Deal (1991) argued that leader’s effectiveness is higher if they can utilize and access all the four frames. Also, if they can realize which frame is better used depending on people involved, and different situations.

Under the IMRaD<sup>1</sup> methodology and using Leadership Orientations Survey Instrument by Bolman and Deal, this study aimed to understand and analyze the leadership orientations of the leaders and managers of the Algerian universities. Based on Bolman and Deal (1991) reframing theory the research questions were: Which and how many frames of Bolman and Deal’s do the leaders and managers from Algerian higher education institutions report as the most dominant frames (self-rating and others rating), and are those leadership orientations correlated to their effectiveness as leaders and managers (self-rating and others rating).

The results show the domination of the structural frame, also shows a combination of use between the structural and human resource frame for Algerian higher education managers that have access to more than one frame. This result confirms preceding finding by Bolman and Deal (1991), who stated that “most educators rely primarily on the human resource or structural frames”.

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<sup>1</sup> IMRaD: format refers to a paper that is structured by four main sections: Introduction, Methods, Results, and Discussion.

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## **Introduction**

The key aspect for the development of any country is good education. Today the universities are working in a complex and competitive environment. They must compete for human and finance resources with other institutions to survive and to develop. The Algerian universities suffer on several levels although took reforms for several years with the aim to place the university at the heart of the economic development. Measuring the quality higher education is a multidimensional task because it contains many aspects and many viewpoints. The main viewpoint to Measure the quality of higher education in this study is the quality of the managers of universities.

This research is based on the Four Frame of leadership by Bolman and Deal (1991). Bolman and Deal are leading scientists in organizational leadership. The Four Frame Model is mainly drawn from main theories of management. These theories argue that critical organizational issues should be seen from several perspectives depending on context. According to Bolman and Deal lens used by the leader impacts the perception and the reaction to an issue. It is a necessary attribute for a leader to "frame and reframe" in context, thus viewing different scenarios from "different lenses".

The Four Frame Model is comprised of (a) the structural frame (the factory), that is described as reminiscent of assembly line order, with an emphasis on rules, roles, goals, policies, and vertical organization. (b) the human resource frame (the family), that focuses on the needs, skills, and relationships of those in the organization, with a belief in empowerment vs. the exercise of power. (c) the political frame (the jungle), that places a higher value on power, conflict, competition, politics, and competing interests of those in the organization for limited resources and (d) the symbolic frame (the theater), that places priority on culture, meaning, ritual, ceremony, institutional memory, and heroes in the search for organizational meaning and inspiration.

## **The structure of the study**

This thesis has been divided into the following chapters:

**Introduction:** in which we presented the theoretical background of the research. The introducing focuses on the study questions. Also, the importance of this research.

**Theoretical Chapter:** an in-depth theoretical framework of the crucial variables is conducted developed based on the research problem and to construct the research model. The chapter was divided into two parts, section one concern with human capitals to answer some questions like how this concept was evolved. How can we measure human capitals? And what is the importance of investment in human capitals. This part starts by deferent definitions about human capital. Then The evolution of human capital concept by mentioning the work and participation of more than twenty scientist. Next is about measuring human capitals, by the monetary and indicators approaches. Finally, a general look on human capital in Algeria. Section two is the theoretical background of the empirical study. It starts by explaining reframing theory by Bolman and Deal by going deep into the four frames (Structural, Human Resource, Political and Symbolic). Then emphasize on how leaders in academic institutions should chose or integrate frames to be able to use reframing theory to lead. The second theory covered in this part is Models of organizational functioning by Robert Birnbaum. He proposed that academic institutions can be categorized into four simple organizational models (collegial, bureaucratic, political, and anarchical). These two theories combined are so helpful to understand leadership in academic institutions. Finally, this part end with a presentation of the evolution of the Algerian higher education.

**The empirical chapter:** In this practical chapter, we used the I.M.R.A.D methodology to design the empirical study. This chapter is divided into 3 parts,

first part is “Methodology”. In it we introduced the research methodology which explains how the study is conducted and how the research questions would be answered. In the methodology part the instrument “survey” is well explained, also how data was collected, and lastly how data was analyzed. The second part of the empirical chapter is “Results and findings”. In it we reported the results and interpreted them. This part is divided into two parts, the first part is concern with self-rating survey, and the second part is concern with other-rating survey. The last part is “Discussions and limitations”, in it a large discussion was conducted by responding to the research questions and investigating to which extent the research objectives are fulfilled.

### **Research questions:**

The core objective of this study is to answer and analyze 3 main questions:

- Which frames of Bolman and Deal’s do the leaders and managers from Algerian higher education institutions report as the most dominant frames (self-rating and others rating)?
- How many frames do the leaders and managers from Algerian higher education institutions use (self-rating and others rating)?
- Are the leadership orientations reported by the leaders and managers from Algerian higher education institutions related to their self-reported effectiveness as managers and leaders (self-rating and others rating)?

# **Theoretical Chapter**

## **Part one**

### **Human capitals**

## ***I. Theoretical Chapter***

### ***I.1.Part one: Human capitals***

#### **Introduction**

The topic of this this part is investment in higher education in order to achieve economic development. Investing in higher education is one type of investing in humans, it's very deferent than investing in normal form of economic activities. The concept of human capitals is a new concept in the history of economy, and it was not recognized worldly till the last few decades. The concept was even called unrealistic from some economic experts a hundred years ago. Today human capitals is consider a pillar in nation's wealth. The purpose of this chapter is answering some questions like how this concept was evolved. How can we measure human capitals? And what is the importance of investment in human capitals.

This part starts by deferent definitions about human capital. Then The evolution of human capital concept by mentioning the work and participation of more than twenty scientist. Those scientists are from deferent countries and Continents, and every one of them studied human capital from a deferent perspective. Some scientists studied the relationship between human capitals and education, others focused on health or wars lost, and others warned about migration of smart and talented peoples. The third part is about measuring human capitals, in which two approaches are approved by most scientists. The monetary approach that have the same accuracy of measuring other physical capitals. This method is so important from economic and financial point of view, it gives a numerical value of the returns and benefits of investing in human capitals. The second approach is indicators, that been created by international organizations. This method is a great mean for politicians and governments to intervene and adjust the education policies. Finally, we take a general look on human capital in Algeria using international reports.

### ***1.1.1. Definitions of human capitals***

Although there is an underlying unity, different writers define human capital in different ways, and it is useful to consider a range of uses.

The Penguin Dictionary of Economics define Human capital as “the skills, capacities and abilities possessed by an individual which permit him to earn income<sup>2</sup>”. And the Oxford dictionaries define it as “The skills, knowledge, and experience possessed by an individual or population, viewed in terms of their value or cost to an organization or country”<sup>3</sup>.

The European Commission define human capitals as “the knowledge and skills embodied in people and accumulated through schooling, training and experience that are useful in the production of goods, services and further knowledge”<sup>4</sup>.

The definition of human capital used in The Organization for Economic Co-operation and Development (OECD) report 2001 is “The knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being”. According to the (OECD) human capital is developed in the contexts of learning within family and early childcare, formal education and training including early childhood school-based education till tertiary education, workplace training as well as informed learning at work through specific activities such as research and informal learning “on-the-job” and in daily living and civic participation<sup>5</sup>.

Defining human capital as a production factor and treating human beings as economic entities in a purely market related context often causes some confusion and opposition since it is viewed as a simplification of human values. It is, however, necessary in order to distinguish between different sets of perspectives and objectives. This can be exemplified with the distinction

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<sup>2</sup> The Penguin Dictionary of Economics, Graham Bannock, 1984

<sup>3</sup> Oxford dictionaries

<sup>4</sup> European Commission

<sup>5</sup> OECD , The Well-being of Nations: The Role of Human and Social Capital, 2001,p18



between general education that provides the individual with knowledge to participate in the society “life spheres” and vocational education, while vocational education is targeted entirely for the demands at the labor markets, “economic sphere only”<sup>6</sup>.

In his book “Principles of Economics (1890)” Alfred Marshall<sup>7</sup> stated that human skills should be included as apart of wealth in a broader sense. He said “A broader view of wealth may indeed be taken for some purposes; ... Thus, for instance the carpenter’s skill is as direct a means of enabling him to satisfy other people’s material wants, and therefore indirectly his own, as are the tools in his workbasket; and perhaps it may be convenient to have a term which will include it as part of wealth in a broader sense, ... we may define personal wealth as to include all those energies, faculties, and habits which directly contribute to making people industrially efficient”<sup>8</sup>.

Fleischer and Kniesner said in their book Labour “Economics: Theory, Evidence, and Policy (1984)” that there are many forms of investments and investing in human capitals is as important and rewarding as normal form of investing. They said “Since long-run labor supply adjustments involve current costs, but future returns, they are investments, and the theory of long-run labor supply is therefore the theory of decisions to invest in human capital ... Investments in human beings ... is useful to divide our discussion between those that take place on the job and those acquired elsewhere. Job-associated investment in human capital consists mainly of formal and informal training programs within firms. Alternatively, schooling, health care, and job search

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<sup>6</sup> OECD, measuring and Reporting Intellectual Capital: Experience, Issues, and Prospects, 1999, p10.

<sup>7</sup> Alfred Marshall (26 July 1842 – 13 July 1924) was one of the most influential economists of his time. His book, Principles of Economics (1890), was the dominant economic textbook in England for many years. It brings the ideas of supply and demand, marginal utility, and costs of production into a coherent whole. He is known as one of the founders of neoclassical economics

<sup>8</sup> Marshall A, *Principles of Economics*, Macmillan, London, 1890, p57

primarily involve activities in which one's employer has much less direct involvement"<sup>9</sup>.

Marcel Mérette define human capital as the aggregation of the innate abilities that represents a potential which is received free of cost by individuals and the knowledge and skills that individuals acquire and develop throughout their lifetime at a cost. Both components enhance the productivity of individuals in the production of goods, services and ideas within market as well as nonmarket environments<sup>10</sup>.

There are several motives for treating human beings as capital and valuing them in money terms:

- (1) To demonstrate the power of a nation;
- (2) To determine the economic effects of education, health investment, and migration;
- (3) To propose tax schemes believed to be more equitable than existing ones;
- (4) To determine the total cost of war;
- (5) To awaken the public to the need for life and health conservation and the significance of the economic life of an individual to his family and country;
- (6) To aid courts and compensation boards in making fair decisions in cases dealing with compensation for personal injury and death.<sup>11</sup>

### ***1.1.2. The evolution of human capital concept***

The concept of human capital has been present in the history of economic thoughts without being systematically developed within a solid theoretical framework. It becomes a main concern of economic analysis in the second half of the 20th century with the pioneer works of Mincer, Becker and Schultz. economists have devoted a great deal of effort to developing and quantifying the

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<sup>9</sup> Fleischer B, Kniesner T , *Labour Economics: Theory, Evidence, and Policy*,1984, p287

<sup>10</sup> Marcel Mérette, *On the Concept and Dimensions of Human Capital*, University of Ottawa,1999, p05

<sup>11</sup> Bill Kiker, *the Historical Roots of the Concept of Human Capital*. *Journal of Political Economy*, 1966,p10

concept of “human capital” and to applying it, through the concept of investment in the formation of human capital, to such activities as education, whether academic study or on the job training, migration, and medical care. The object of this is to review some of the past literature, to determine which authors treated human beings as capital, their motives for doing so, and their procedures for valuing man as capital.

#### I.1.2.1. *William Petty*

One of the first attempts to estimate the money value of a human being was made around 1690 by Sir William Petty<sup>12</sup>. Labor to him was the “father of wealth.” It must therefore be included in any estimate of national wealth, which led him to place a money value on laborers. Petty’s interest in the monetary evaluation of human beings developed out of his interest in public finance. However, he used the notion of human capital in attempts to demonstrate the power of England and the money value of human life lost in war or normal deaths. Petty estimated the value of the stock of human capital by capitalizing the wage bill to perpetuity, at the market interest rate; the wage bill he determined by deducting property income from national income<sup>13</sup>. Despite the limitation of Petty’s method that makes no allowance for the cost of maintenance of workers before capitalization and it is inadequate when used for human-capital values by age, sex, and economic status. Petty’s method gives a close approximation for determining the capital value of a nation.

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<sup>12</sup> Sir William Petty (born May 26, 1623, Romsey, Hampshire, England-died December 16, 1687, London), English political economist and statistician whose main contribution to political economy, *Treatise of Taxes and Contributions*, examined the role of the state in the economy and touched on the labor theory of value. Petty studied medicine at the Universities of Leiden, Paris, and Oxford. He was successively a physician, a professor of anatomy at Oxford, a professor of music in London, inventor, surveyor and landowner in Ireland, and a Member of Parliament.

<sup>13</sup>Charles Hull, *The Economic Writings of Sir William Petty*. 2 vols. Cambridge: Cambridge Univ. Press, 1899.p 15

### I.1.2.2. *William Farr*

William Farr<sup>14</sup> advocated the replacement for the English income tax system of a property tax that would include property consisting of the capitalized value of earning capacity. A difficult scientific approach to estimate an individual human capital applying actuarial mathematics is developed by Farr in which he estimates an individual human capital as the present actuarial value of the expected annual earnings and the net of maintenance cost. Farr suggested that since human beings are productive, they should be regarded and taxed as capital. Since this would oblige people to pay tax on wealth that they do not have in hand, it could lead to illogical results<sup>15</sup>.

### I.1.2.3. *Ernst Engel*

Ernst Engel<sup>16</sup> considers three (lower, middle and upper) German social classes and applied a simple formula to estimate the cost at birth of each class, growing afterward at an arithmetic progression of ratio. The monetary value of a human being belonging to each social class becomes:

$$C_x = c_o \{1 + x + k[x(x+1)/2]\},$$

Where  $C_x$  is the total cost of producing a human being (neglecting interest, depreciation, and maintenance) through age  $X$ ,  $C_o$  denotes costs incurred up to the point of birth, and  $K$  is the annual percentage increase in cost. The constant,  $C_o$ , was empirically found by Engel to be 100 marks for the lower German social class, 200 for middle, and 300 the upper class. Engel observed  $K$  to be 0.1. This formula applies, however, only when  $X \leq 26$ . After age twenty-six the individual was assumed by Engel to be “fully produced”<sup>17</sup>

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<sup>14</sup> William Farr (30 November 1807 in Shropshire, England – 14 April 1883 in London, England) was perhaps the most influential British statistician of the nineteenth century He constructed the first British life table (based on deaths in 1841) and carried out a wide range of creative analyses of British mortality statistics

<sup>15</sup> Camilo Dagum, University of Bologna, and Giorgio Vittadini, University of Milan, human capital measurement and distribution, 156th Meeting of the American Statistical Association 1996

<sup>16</sup> Ernst Engel, (born March 26, 1821, Saxony Germany)—died Dec. 8, 1896, Dresden Germany), German statistician, Engel was head of the statistical department of Saxony from 1854 to 1858, and from 1860 to 1882 he headed the Prussian statistical department in Berlin. He remembered for the “Engel curve,” or Engel’s law

<sup>17</sup> Bill Kiker, the Historical Roots of the Concept of Human Capital. Journal of Political Economy, 1966, p12

#### I.1.2.4. *Theodor wittstein*

Theodor Wittstein's interest in the concept of human capital arose from a desire to determine a guide to be used as a basis for claims for compensation from loss of life. He combined Farr's prospective and Engel's retrospective approaches. Since Wittstein assumed that an individual's lifetime earnings are equal to his lifetime maintenance cost plus education, the approaches yield the same estimates which inevitably come out to be zero at birth. His procedure may be summarized in the following formulas:

$$C(n) = aR(0) (L(0)/L(n)) r^n - aR(n)$$

$$C(n) = XR(N) (L(N)/L(n)) p^{N-n} - aR(n)$$

where  $a$  is annual consumption expenditures including education for an average German male in a particular occupation,  $r = (1 + i)$ , where  $i$  is the market interest rate;  $p = 1/r$ ;  $L(n)$  is the number of men living at age  $n$  in a life table;  $R(n)$  is the value at age  $n$  of a 1-thaler annuity (for a given  $r$  and purchased at birth);  $X$  is the value of the future output of an average man in a particular occupation;  $N$  is the age at which this man enters the labor force. Although Wittstein's formulas are interesting, his assumption that lifetime earnings and lifetime maintenance cost are equal is unjustified.<sup>18</sup>

#### I.1.2.5. *Louis Dublin and Alfred Lotka*

Louis Dublin<sup>19</sup> and Alfred Lotka<sup>20</sup> adopt Farr's approach and make additional contributions to the cost and money value estimate of individuals. They estimate the human value at birth  $V_0$  as the actuarial value of a flow of net earnings  $Y_x E_x - C_x$  where  $x$  is the age of an individual,  $Y_x$  is earned income from age  $x$  to  $x+1$ ,  $E_x$  is the probability of being employed at age  $x$ , i.e. the proportion of

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<sup>18</sup> Bill Kiker, the Historical Roots of the Concept of Human Capital. *Journal of Political Economy*, 1966, p10

<sup>19</sup> Louis Israel Dublin (November 1, 1882 – March 7, 1969) was an American statistician, obtained his bachelor's in 1901 at City College of New York. He earned his Ph.D. at Columbia University in 1904. Dublin taught at Yale as a lecturer in vital statistics, and in 1924 served as president of the American Statistical Association.

<sup>20</sup> Alfred James Lotka (March 2, 1880 – December 5, 1949) was a US mathematician, physical chemist, and statistician, famous for his work in population dynamics and energetics. The Lotka-Volterra model is still the basis of many models used in the analysis of population dynamics in ecology.

individuals employed from age  $x$  to  $x+1$ , and  $C_x$  is the cost of leaving from age  $x$  to  $x+1$ . Being  $i$  the discount rate,  $p(a, x)$  the probability of surviving at age  $x$  of a person having an age  $a < x$ , and  $\infty$  his maximum possible age, generally made equal to 100, Dublin and Lotka deduce the following net value of a human being at birth:

$$(1) \quad V_0 = \sum_{x=0}^{\infty} v^x P_{(0,x)}(y_x E_x - c_x), v=1/(1+i).$$

Hence, the present net value at age  $a$  is,

$$(2) \quad V_0 = \sum_{x=0}^{\infty} v^{x-a} P_{(0,x)}(y_x E_x - c_x)$$

Since  $y_x E_x - c_x$  stands for the net earnings of a person from age  $x$  to  $x+1$ ,  $c_x - y_x E_x$  stands for the net costs, and

$$(3) \quad C_a = \sum_{x=0}^{a-1} (1+i)^{a-x} (y_x E_x - c_x) / p(x,a)$$

is the net cost at age  $a$  of rearing a person from birth to age  $a$ . The denominator in (3) implies that  $C_a$  includes the per-capita net cost for the surviving population at age “ $a$ ” of those that died at age  $x < a$ .

It follows from (1)-(3) that

$$(4) \quad C_a = V_a - V_0(1+i)^a p(0,a)$$

Dublin had estimated the capital value of the population of the United States in 1922 to be five times the stock of material wealth. The basis of this estimate is unknown and the estimate itself not entirely credible. Dublin and Lotka’s argument of the “capitalized earnings” approach is clear, concise, and one of the best expositions available.<sup>21</sup>

### I.1.2.6. *Adam Smith*

In 1776 Adam Smith<sup>22</sup> published his *Inquiry into the Nature and Causes of the Wealth of Nations*. Smith was quite clear about the role of human capital. He

<sup>21</sup> Camilo Dagum, University of Bologna, and Giorgio Vittadini, University of Milan, human capital measurement and distribution, 156th Meeting of the American Statistical Association 1996, p 14.

<sup>22</sup> Adam Smith (16 June 1723 – 17 July 1790) was a Scottish moral philosopher, pioneer of political economy, and a key figure in the Scottish Enlightenment. He studied social philosophy at the University of Glasgow and at

remarked on most people's presumption of the capital stock as always being something physical and he warned not to forget human capitals. Smith considered education as one of the effective ways of increasing the productivity of human resources. He emphasized the development of skills through specific kinds of training<sup>23</sup>.

Although Adam Smith did not specifically define the term “capital,” Adam Smith included in his category of fixed capital the skills and useful abilities of human beings. The skill of a man, he said, may be regarded as a machine that has a genuine cost and returns a profit<sup>24</sup>

#### ***I.1.2.7. Alfred Marshall***

Alfred Marshall distinguished personal capital from material capital; he considered personal capital as being mostly formed through investment by parents paying for their children education. Marshall argued that an estimate of the capital value of a man might be useful and he emphasized on Human capital and investment in which was required to develop the industrial efficiency of the people, and he argued that the growth of wealth was governed by a great various of causes specially the progress of knowledge and intelligent<sup>25</sup>. But Alfred Marshall disregarded the concept as “unrealistic,” since human beings are not marketable.

#### ***I.1.2.8. Joseph Nicholson***

Joseph Nicholson<sup>26</sup> published an article in 1891 on "The Living Capital of the United Kingdom". Nicholson said that "almost all systematic writers on Political

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Balliol College, Oxford and obtained a professorship at Glasgow teaching moral philosophy. Smith laid the foundations of classical free market economic theory

<sup>23</sup> Fritz machlup lectures in development economics, Pakistan institute of development economics. 1982

<sup>24</sup> Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, London: Methuen, 1904, p422

<sup>25</sup> Tamotsu Nishizawa, *Alfred marshal on human capital and future generations*, 2002, p16

<sup>26</sup> Professor Joseph Shield Nicholson (November 9, 1850– March 12, 1927) was an English economist, born at Wrawby, Lincolnshire. He was educated at King's College London, Edinburgh, Cambridge, and Heidelberg. He was private tutor at Cambridge (1876–80) and became professor of political economy at Edinburgh University in 1880. He was the first president of the Scottish Society of Economists, serving from the creation of the Society in 1897 until 1903

Economy have discussed the question whether or not the skill of the artisan and other intangible elements of the social fabric should be included in the wealth of the individual or the nation". Nicholson estimated that the total value of the country's living capital was more than five times the stock of physical capital. He looked to the cost of educating, not the cost of feeding the child, as the major investment in human productivity<sup>27</sup>.

#### **I.1.2.9. *John McCulloch***

John McCulloch<sup>28</sup> defined the human being as such as capital and he argued that there is not any good reason why man himself should not be considered a part of the national. He said, moreover, that an investment in a human being should yield a rate of return consistent with other investments, plus a normal rate of return determined by the market interest rate, during the probable lifetime of the individual. McCulloch believed that there is a close analogy between conventional and human capital<sup>29</sup>.

#### **I.1.2.10. *John Stuart Mill***

John Stuart Mill<sup>30</sup> said in Chapter 14 in his book “Principles of Economic” that some jobs require a much longer time to learn and a much more expensive course of instruction than others; and to this extent there is an inherent reason for their being more highly compensated. In fact, his wages must yield, over and above the ordinary amount, an annuity enough to repay these sums, with the common rate of profit, within the number of years he can expect to live and be in working condition<sup>31</sup>. Mill did not even consider the possibility of divergent

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<sup>27</sup> Fritz machlup, lectures in development economics, Pakistan institute of development economics. 1982, p09

<sup>28</sup> John Ramsey McCulloch (1 March 1789 – 11 November 1864), a Scottish economist, author and editor, is widely regarded as the leader of the Ricardian school of economists after the death of David Ricardo in 1823. He was appointed the first professor of political economy at University College London in 1828. He edited the 1828 edition of *The Wealth of Nations*

<sup>29</sup> Bill Kiker, the Historical Roots of the Concept of Human Capital. *Journal of Political Economy*, 1966.p486

<sup>30</sup> John Stuart Mill (20 May 1806 – 8 May 1873) was an English philosopher, political economist, feminist, and civil servant. He was an influential contributor to social theory, political theory and political economy. He has been called "the most influential English-speaking philosopher of the nineteenth century"

<sup>31</sup> John Stewart Mill, *Principles of political Economy*, Vol I, (New York: D. Appleton and Co., 1909) p. 470.



moral and economic values worthy of consideration. He elaborated on the differences in wages and the treatment that Adam Smith had given investment in human capital. He argued that the difference in wages between skilled and unskilled is the lowest that can last for any length of time, since otherwise no one would learn the skilled.

#### **I.1.2.11. *Irving Fisher and Léon Walras***

Irving Fisher<sup>32</sup> and Léon Walras<sup>33</sup> also considered the whole human being in their concepts of capital. They argued that the productive process was for man; it was not an end for which man was only one of the factors of production. Walras defined capital as all durable goods, all forms of social wealth which are not used up or are used only with the lapse of time<sup>34</sup>. He emphasizes that although personal Capital is not subject to purchase and sale, labor or personal capital are offered and demanded every day on the market, so that personal capital can, and often should, at least be evaluated<sup>35</sup>. Fisher specified that the skill of a mechanic is not wealth in addition to the man himself; it is the skilled mechanic who should be put in the category of wealth<sup>36</sup>.

#### **I.1.2.12. *Henry Sidgwick***

Henry Sidgwick<sup>37</sup> distinguish between consumption expenditures made to increase labor's productivity and he separated between labor and capital because according to him not the whole man is considered as capital or even his normal abilities. It is only those intentionally developed for added productivity that can be considered capital. For example, in determining the investment for education,

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<sup>32</sup> Irving Fisher (February 27, 1867 – April 29, 1947) was an American economist, statistician, inventor, and Progressive social campaigner. He was one of the earliest American neoclassical economists, though his later work on debt deflation has been embraced by the Post-Keynesian school.

<sup>33</sup> Marie-Esprit-Léon Walras (December 16, 1834 – January 5, 1910) was a French mathematical economist. He formulated the marginal theory of value and pioneered the development of general equilibrium theory.

<sup>34</sup> Leon Walras, *Elements of pure Economics*, London: George Allen and Unwin Ltd, 1954, p 215.

<sup>35</sup> Leon Walras, *Elements of pure Economics*, London: George Allen and Unwin Ltd, 1954, p 216.

<sup>36</sup> Irving Fisher, *The Nature of Capital and Income*, the Macmillan company London. 1906, p 9.

<sup>37</sup> Henry Sidgwick (31 May 1838 – 28 August 1900) was an English utilitarian philosopher and economist. He was one of the founders and first president of the Society for Psychical Research and a member of the Metaphysical Society, and promoted the higher education of women

one includes not only those expenditures that are made for cure investment reasons but also part of the expenditures made on consumption if these expenditures have as a by-product increased the student's efficiency. The problem then becomes trying to estimate how much should be really considered investment and how much should be considered consumption<sup>38</sup>.

Sidgwick argued that the laborer's consumption is distinctly designed to increase his efficiency, that it can properly be regarded as an investment of capital. But we must distinguish it broadly from consumption that would not be incurred, except as a means to further production; treating as a gift of nature any undersigned gain in productive efficiency that might result from its<sup>39</sup>.

#### I.1.2.13. *Nassau Senior*

Nassau Senior<sup>40</sup> suggested that human beings can usefully be treated as capital and he referred to skills and acquired which led him to treat the human being as capital with a maintenance cost incurred with the expectation of obtaining a future yield. Senior emphasized that there is little difference between talking about the value of a slave and about the value of a free man because free man sells himself for a certain period and only to a certain extent, whereas the slave is sold for his lifetime<sup>41</sup>

#### I.1.2.14. *Alfred de foville*

Alfred de foville<sup>42</sup> stated in his attempt to estimate the value of the stock of capital in France that any method for calculation the value of the stock of human capital by capitalizing the earnings before subtracting consumption expenditures is wrong. It is the error in this procedure, he averred, that has led writers to

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<sup>38</sup> James p. clay, human capital: a review of the literature, Colorado university, 1966, p 10

<sup>39</sup> Henry Sidgwick, the Principles of Political Economy, London: Kacmillan and Co, 1901, p 134.

<sup>40</sup> Nassau William Senior (September 26, 1790 - June 4, 1864), was an English lawyer known as an economist. He was also a government adviser over several decades in the areas of economic and social policy, on which he wrote extensively

<sup>41</sup> Bill Kiker, the Historical Roots of the Concept of Human Capital. Journal of Political Economy, 1966.p499

<sup>42</sup> Alfred Foville (December 26, 1842 in Paris - May 14, 1913) is a French economist and statistician. The founder of the French statistical institute marked the school geographical and architectural environment

assert that the value of the stock of human capital is greater than the value of the stock of conventional capital. By deducting consumption expenditures (maintenance) from earnings and then applying Petty's method, he estimated the value of the stock of human capital in France. For some purposes, this approach improves the analogy between the valuations of the aggregate stocks of human and conventional capital<sup>43</sup>.

#### I.1.2.15. *Jacob Mincer*

Jacob Mincer<sup>44</sup> developed a model for examining the nature and causes of inequality in personal incomes, asserting that training and skill importantly affected personal income dispersions. Mincer designed a model to accommodate two major concerns: income distributions of individual differences in investment in human capital is subject to free choice meaning that training differing primarily in the length of time it requires. Also, to measure two major types of training, formal and informal, the model incorporated years of education and years of work experience. Worker age was used to replacement work experience.

Mincer found that years of work foregone to pursue education were rationally compensated with higher earnings. He also found that age-earnings profiles revealed two distinct correlations: As more skill and experience are acquired with the passage of time, earnings rise. Mincer enhanced the model to account for income dispersions across several occupational groupings. He concluded that: Differences in training result in differences in levels of earnings among occupations as well as in differences in slopes of life-paths of earnings among occupations<sup>45</sup>.

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<sup>43</sup> Bill Kiker, the Historical Roots of the Concept of Human Capital. *Journal of Political Economy*, 1966.p489

<sup>44</sup> Jacob Mincer (July 15, 1922 – August 20, 2006), was a father of modern labor economics, he received his Ph.D. from Columbia University in 1957 and was a member of the National Bureau of Economic Research from 1960 through his death

<sup>45</sup> Scott R. Sweetland, *Human Capital Theory: Foundations of a Field of Inquiry*, University of New York, 1996, p345

According to Mincer human capital activities include not only the transmission and embodiment in people of available knowledge, but also the production of new knowledge which is the basis of innovation and of technical change which drives all factors of production. This latter function of human capital creates universal economic growth regardless of its original geographic locus<sup>46</sup>. Mincer consider human capital as a powerful force in terms of promoting a stronger rate of individual economic growth, and by making individuals more productive. This was empirically observable on the steeper slopes of the life-path income curves, and by a greater dispersion of income<sup>47</sup>.

#### **I.1.2.16. *Solomon Fabricant***

Solomon Fabricant<sup>48</sup> discovered that the approaches and assumptions underlying productivity figures frequently promoted underestimation of intangible capital (human capital) investment therefore overstatement of productivity. According to Fabricant society's intangible capital includes all the improvements in basic science, technology, business administration, and education and training that aid in production. He addressed statistical inconsistencies by specifying alternative labor and capital indexes as well as the effects that each had on measures of productivity. His goal was to create a new index including weighted labor and capital inputs. Fabricant argued that a portion of intangible capital could be accounted for by weighting the labor index to reflect qualities beyond given quantities<sup>49</sup>.

Fabricant stated that the aim of economic research is to extend economic knowledge; the use of economic knowledge to support the solution of economic

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<sup>46</sup> Jacob Mincer, human capital and economic growth, national bureau of economic research, 1981, p2

<sup>47</sup> Pedro Teixeira, Jacob Mincer and the Centrality of Human Capital for Contemporary Labor Economics, Faculty of Economics of Porto, p06

<sup>48</sup> Solomon Fabricant (August 15, 1906 New York City - September 13, 1989) was an American economist. he was professor at the faculty of the economics department at NYU, Fabricant served in numerous government bodies and institutions

<sup>49</sup> Scott R. Sweetland, Human Capital Theory: Foundations of a Field of Inquiry, University of New York, 1996, p346

problems. To shore up defenses against business depression, reinforce the forces of economic growth, and improve the effectiveness of production and distribution. The solution of our economic difficulties is now also if not primarily a weapon in the struggle for survival as a free nation. Investment in economic knowledge is required to arm ourselves with that weapon<sup>50</sup>.

### **I.1.2.17. Gary Becker**

Gary Becker<sup>51</sup> studied differentials in personal incomes that had accrued to college graduates in the United States. He tried to determine if national expenditure on higher education was satisfactory and if American college student quality could be enhanced. The methodology established by Becker compared personal incomes of college graduates with those of high school graduates. Income differences between the two groups were then related to costs of attending college in such a way that Becker was able to mathematically derive a rate of return on investments in college education. His research hypothesis stated, “If this rate of return was significantly higher than the rate earned on tangible capital, there would be evidence of underinvestment in college education”<sup>52</sup>. Becker theorized that many exceptional students did not attend college because of personal financial circumstances. Supported by shorthand calculations, he stated, “It appears that an increase in the fraction of able persons going to college would raise the average return from college”<sup>53</sup>. Although Becker was unable to directly support his hypothesis, the design of his study provided an important methodology for analyzing human capital investments<sup>54</sup>.

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<sup>50</sup> Solomon Fabricant, Investing in Economic Knowledge, National Bureau of Economic Research, 1958, p02

<sup>51</sup> Gary Stanley Becker (December 2, 1930 – May 3, 2014) was an American economist. He was professor of economics and sociology at the University of Chicago and at the Booth School of Business. He was awarded the Nobel Memorial Prize in Economic Sciences in 1992 and received the United States Presidential Medal of Freedom in 2007

<sup>52</sup> Gary Becker, human capital a theoretical and empirical analysis, university of Chicago,1993,p32

<sup>53</sup> Gary Becker, human capital a theoretical and empirical analysis, university of Chicago,1993,p86

<sup>54</sup> Scott R. Sweetland , Human Capital Theory: Foundations of a Field of Inquiry, University of New York, 1996,p347

In his book (human capital a theoretical and empirical analysis “1993”) Gary Becker explained that most investments in human capital such as formal education, on the job training or migration raise observed earnings at older ages, because returns are part of earnings then, and lower them at younger ages, because costs are deducted from earnings at that time. Since these common effects are produced by very different kinds of investment in human capital, a basis is provided for a unified and comprehensive theory. The general theory has a wide variety of important applications. It helps to explain such diverse phenomena as interpersonal and interarea differences in earnings, the shapes of age earnings profiles, and the effect of specialization on skill. The effect of one kind of human capital “formal education” on earnings and productivity is certain but learning on and off the job has the same kind effects on observed earnings as formal education, training is a recognized investment in human capital<sup>55</sup>.

#### ***I.1.2.18. Theodore Schultz***

Theodore Schultz<sup>56</sup> synthesized his analysis, which was based on his experience in the field of agricultural economics, with other foundational studies to support human capital theory. Schultz elucidated that national income had risen during the 1900-1956 period. Moreover, the estimated stock of education in the work force had grown at nearly twice the rate. Schultz listed five key types of human capital investments:

- (1) Officially organized education at all levels.
- (2) On-the-job training, including old-style apprenticeship organized by firms.
- (3) Study programs for adults that are not organized by firms.
- (4) Health facilities and services that affect the life expectancy” of a people.

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<sup>55</sup> Gary Becker, human capital a theoretical and empirical analysis, university of Chicago,1993,p245

<sup>56</sup> Theodore William "Ted" Schultz (April 30, 1902 - February 26, 1998) was an American economist, Nobel Laureate, and chairman of the Chicago School of Economics. Schultz won the 1979 Nobel Memorial Prize in Economic Sciences.

(5) Migration of individuals and families to adjust to changing job opportunities<sup>57</sup>

In his economic analysis of the role of investment in human Schultz claimed that a deeper understanding of the concept could be achieved in answering 4 questions. How to maximize the economic growth of a nation? For him the answer is to consider the costs and benefits from investments in education, health, migration, etc. What are the causes of the poverty regions of the United States? For him it seems that one factor is the deplorable quality of education in these areas. What causes the widely deformed income distribution? And why is the curve relating income to age steeper for skilled than for unskilled persons?

These areas of investment in human capital led Schultz to mention six points whose social implications might require a new look at public policy decisions.

(1) The tax laws discriminate against human capital because those laws are blind on matters such as that human capital depreciates, becomes obsolete, and entails maintenance.

(2) Human capital depreciates when it is idle because unemployment impairs the abilities that workers have developed.

3. There are greater inadequacies of the capital market in providing resources for investment in human beings than for investment in physical goods.

4. Internal migration requires extensive investments.

5. The low earnings of only particular people have long been a matter of public concern.

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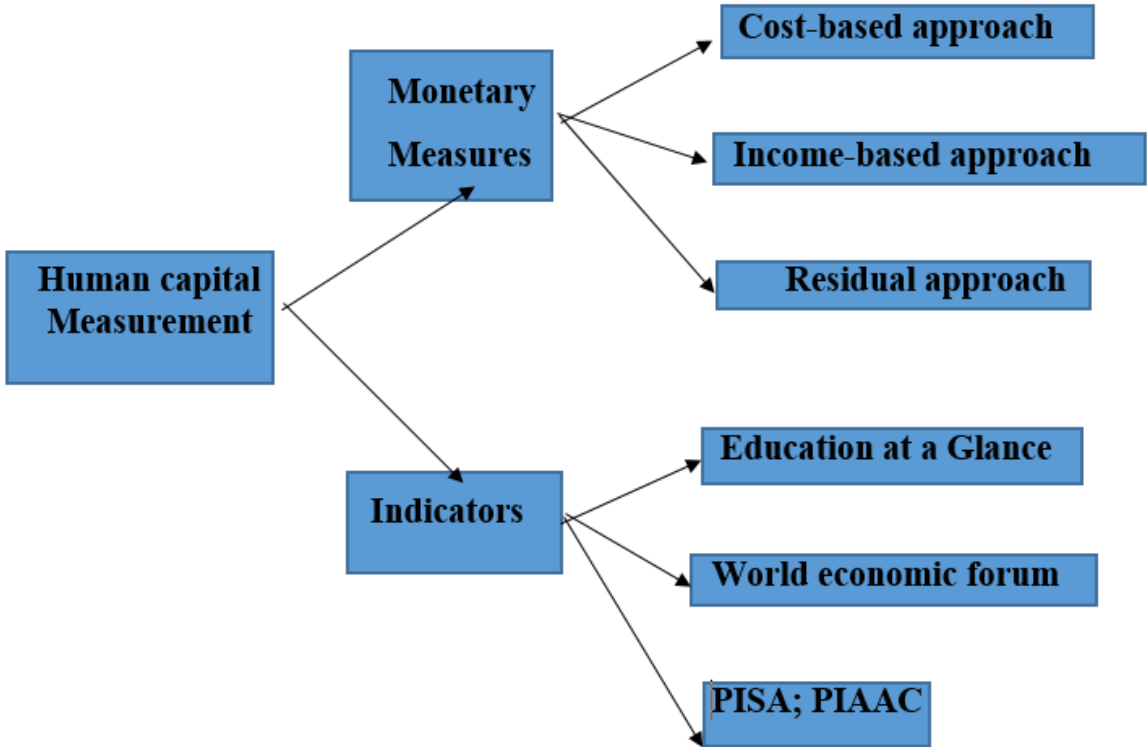
<sup>57</sup> Scott R. Sweetland , Human Capital Theory: Foundations of a Field of Inquiry, University of New York, 1996,p348

6. Should the returns from public investment in human capital accrue to the individuals in whom it is made? <sup>58</sup>

***1.1.3. Measuring human capital***

Scientists divide measuring human capital into two major methods, monetary approach and indicators approach. The monetary approach divides into 3 types, Cost-based approach, Income-based approach and Residual approach. The indicators approach divides into a lot of indexes, the most important ones are Education at a Glance, The Program for International Student Assessment (PISA), the Program for International Assessment of Adult Competencies (PIAAC) and the World economic forum human capital report.

***Figure 1: Measuring human capital***



**Source: my work**

<sup>58</sup> James p. clay, human capital: a review of the literature, Colorado university, 1966,p 33-37



### ***I.1.3.1. Monetary approach***

#### ***I.1.3.1.1. Cost-based approach***

The cost-based approach measures human capital by considering the stream of previous investments coming from the individual, the family, employers and governments. This method depends on data of the entire expenses that are incurred when creating the human capital. These expenses contain monetary expenditures by all agents cited above and can moreover be extended to account for non-market expenses<sup>59</sup>.

#### ***Advantages and disadvantages***

The cost-based approach is easy to apply since statistics are available on public and private outlays like official learning as human capital investments. The method also be able to be prolonged to account for expenditure assumed for in work and adult training<sup>60</sup>.

The first challenge concerns the resolution measures used to divide human resource costs into a consumption-flow element and an investment-flow element. Some economists consider that all expenditures of raising youngsters to the age of 14 are human capital investments. But others disputed that because those expenditures must not be preserved as investments unless men are considered slaves. The absence of empirical proof directed most economists to attribute 50% of household costs on health as human capital investment and attribute the other 50% to consumption.

The second challenge of the cost-based method relates to the choice of devaluation proportions for human capital. The choice of devaluation for calculating human capital is basically uninformed because of an absence of

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<sup>59</sup> Gang Luj, measuring the stock of human capital for comparative analysis, ocde, 2011, p112

<sup>60</sup> Gang Liu, Mads Greker. Measuring the stock of human capital for Norway. A lifetime labor income approach. 2009, p04

empirical proof. Some economists used the modified double declining-balance approach. Others used straight-line depreciation<sup>61</sup>.

### ***1.1.3.1.2. Income-based approach***

The income-based approach measures human capital by considering the stream of upcoming incomes that human makes over the lifetime. The income-based method calculate human capital by regarding at the output side. The income-based method prices human capital at market values, under the theory that these values are decent indications of the value of human capital from the relations of demand and supply. The lifetime income method leads to an accounting system that contains values, volumes, and prices<sup>62</sup>.

### **Advantages and disadvantages**

The choice of the lifetime income method for calculating human capital echoes its advantages in a variety of aspects. These aspects contain the total population and their expected life, also their educational accomplishment and their labor market knowledges. Another advantage of the lifetime income method is that changes in human capital through each accounting period can be defined in terms of investment, depreciation and revaluation<sup>63</sup>.

The income-based method is not invulnerable from any disadvantages. For example, to estimate anticipated upcoming incomes, some independent conclusions must be made about the discount rate and the real income growth rate. Also, the labor market does not always function perfect. The income-based method is not constantly equivalent to the marginal value of a specific category of human capital because the income rate normally used as a proxy for earning power. Also, variances in wages will not truthfully reveal variances in earning power under certain conditions, where actual wages may fall in economic

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<sup>61</sup> Wulong Gu and Ambrose Wong, Estimates of Human Capital in Canada, Minister of Industry, 2010,p21

<sup>62</sup> United Nations Economic Commission for Europe, A stock-taking report on measuring human capital,2013,p13

<sup>63</sup> Gang Liu, Measuring the Stock of Human Capital for Comparative Analysis, OECD,2011,p10

recessions<sup>64</sup>. On the other side, numerous elements could affect employees' efficiency beyond official schooling such on the job training and learning. This indicates that employee's incomes overstate the impact of official schooling to human capital, leading to an overestimate of its extent<sup>65</sup>.

### ***1.1.3.1.3. Residual approach***

The residual approach to calculating human capital is used by the World Bank. This method calculates human capital as the variance between the total reduced value of each nation's upcoming consumption and the totality of the tangible elements of that wealth. This method can be useful to many nations but has limits. First, the reduced value of upcoming consumption flows disregards inputs to human capital formation and the non-market benefits of numerous capital stocks. Second, this measure is affected by calculating inaccuracies, causing probable biases in the final evaluations of human capital. Third, the method cannot clarify what motivate the variations of the stock of human capital over time, thus delivering less cherished data for policy intervention<sup>66</sup>.

The three methods all state to monetary measures. One mutual benefit of these measures is that they combine many diverse characteristics that contribute to human capital accumulation in a single metric. Evaluations built on the income-based method permit comparing the significance of demography, educational elements and labor market elements. Also, human capital evaluations built on the cost-based method permit comparing the significance of the expenses incurred by diverse sectors and of non-market inputs. Single measures hide as much data as they disclose. Monetary values of human capital may increase when volumes are decreasing. Monetary measures of human capital need to be

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<sup>64</sup> Gang Liu, Mads Greger. Measuring the stock of human capital for Norway. A lifetime labor income approach. 2009, p05

<sup>65</sup> United Nations Economic Commission for Europe, A stock-taking report on measuring human capital,2013, p13

<sup>66</sup> United Nations Economic Commission for Europe, A stock-taking report on measuring human capital,2013,p11

accompanied by data on volumes and prices, by in depth exploration based on physical indicators<sup>67</sup>.

### ***1.1.3.2. Indicators approach***

#### ***1.1.3.2.1. Education at a Glance***

For Governments to develop policies to improve social and economic prospects they look to international comparisons of education opportunities and outcomes. Education at a Glance offers for governments wanting to learn policy lessons, to academics needing data for advance analysis and to the general public observing how schools are developing<sup>68</sup>. Education at a Glance Consists of four chapters.

##### ***1.1.3.2.1.1. Chapter one: the output of educational institutions and the impact of learning***

This chapter consists of ten indicators concerns with the output of educational institutions and the impact of learning.

##### ***How many students are expected to complete upper secondary education?***

This indicator shows the existing upper secondary graduate output of education systems. It also shows the percentage of the youth cohort that will enter different types of tertiary education. Finally, it sheds light on the distribution of new entrants at the tertiary level across fields of study<sup>69</sup>. Upper secondary education purposes to prepare students for entry into tertiary education or the labor market. Progressing from upper secondary education has become more and more important as the skills wanted in the labor market are knowledge-based. Whereas graduation rates give an indication of education systems succession in preparing students to meet the labor market's desires, they do not capture the quality of education outcomes. By the end of lower secondary education in

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<sup>67</sup> United Nations Economic Commission for Europe, A stock-taking report on measuring human capital, 2013, p14

<sup>68</sup> OECD indicators, Education at a Glance ,2015, p3

<sup>69</sup> OECD indicators, Education at a Glance ,2008, p52

many OECD countries, students can disengage from the education system. These people have a tendency to face severe problems entering in the labor market. Policy makers are investigative ways to decrease the number of early school-leavers<sup>70</sup>.

### **To what level have adults studied?**

This indicator outlines the educational attainment of the adult people as captured over formal education. It delivers a proxy for the knowledge and skills accessible to national economies and societies<sup>71</sup>. Education plays a crucial role in providing people with the knowledge, skills and competencies to contribute effectively in the economy. Education also contributes to a development of scientific and cultural knowledge. This indicator studies demographic factors determining the future supply of educational qualifications.

The level of educational attainment of the people is a frequently used proxy for the stock of human capital. The educational attainment of the adult people can be calculated by the average years of schooling. However, the calculation is built on the length of existing educational programs and thus signifies an evaluation of the replacement value of the existing human capital rather than an evaluation of the real average length of educations achieved by past peoples<sup>72</sup>.

### **To what extent does parents' education influence participation in tertiary education?**

Giving all young people a fair chance to obtain a quality education is a fundamental part of the social contract. This indicator draws from the (Survey Program for the International Assessment of Adult Competencies “PIAAC”), to analyze the incidence of tertiary education among adults whose parents had not attained that level of education. In today’s fast-changing labor markets, the gap

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<sup>70</sup> OECD indicators, Education at a Glance ,2015, p48

<sup>71</sup> OECD indicators, Education at a Glance ,2010,p26

<sup>72</sup> OECD indicators, Education at a Glance ,2004, p42

in returns between low and high qualified workers is growing. On average, less educated adults have the highest unemployment rates and have the lowest wages which is a heavier social burden.

PISA 2012 results show that countries that have executed policies with an emphasis on equity, students from deprived backgrounds have enhanced their performance at school. Countries that underperformed in 2003 enhanced their PISA scores by 2012 due to giving more students higher quality education. Preserving rational costs for higher education and funding student support systems can help underprivileged students<sup>73</sup>.

### **How many students are expected to complete tertiary education?**

Tertiary graduation rates indicate a country's capacity to equip future workers with advanced knowledge and skills. In OECD countries, individuals have strong incentives to obtain a tertiary qualification. Tertiary education varies widely in structure among countries. In recent decades, access to tertiary education has expanded extraordinarily, as groups that were usually excluded now join tertiary education, as older folks look for to upgrade their qualifications to succeed in a more competitive labor market, and as first-time graduates pursue a second degree<sup>74</sup>.

### **What are the earnings advantages from education?**

The data in this indicator show that earnings advantages differ according to education. The advanced the qualification attained, the better placed persons are to earn higher wages and to see growths in those wages over time. In all OECD countries data show that higher levels of education usually translate into better

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<sup>73</sup> OECD indicators, Education at a Glance ,2013, p64

<sup>74</sup> OECD indicators, Education at a Glance ,2014, p74

odds of employment and the higher the level of education, the greater the relative incomes<sup>75</sup>.

On average, a tertiary graduate who achieves at Level 4 or 5 in literacy proficiency, as measured by the Survey of Adult Skills (PIAAC), makes about 45% more than an equally educated adult who achieves at or beneath Level 1 in literacy proficiency; amid adults with upper secondary education, there is a variance in earnings of around 30% between those with high and those with low literacy proficiency<sup>76</sup>.

### **How does educational attainment affect participation in the labor market?**

This indicator inspects the relationship between educational attainment and labor force activity, comparing employment and unemployment ratios by gender and changes over time<sup>77</sup>. In most OECD countries labor force contribution rates increase with educational attainment and the participation rate for graduates of tertiary education is higher than that for upper secondary graduates. The gender gap in labor force participation declines with growing educational attainment. While a gender gap in labor force participation rests amid those with the highest educational attainment, it is much slimmer than among those with lower qualifications<sup>78</sup>.

### **What are the social outcomes of education?**

The connection between health and education has been well recognized in many countries. Better educated people have lower morbidity rates and improved life expectancy. Health is not the only social outcome linked to education. Interpersonal confidence, volunteering and political engagement are also linked with education. When people sense they comprehend the political topics facing

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<sup>75</sup> OECD indicators, Education at a Glance ,2015, p116-117

<sup>76</sup> OECD indicators, Education at a Glance ,2014, p132

<sup>77</sup> OECD indicators, Education at a Glance ,2004, p148

<sup>78</sup> OECD indicators, Education at a Glance ,2003, p143

their country they are more likely to be politically engaged<sup>79</sup>. Amid people with the similar level of educational attainment, those with advanced levels of literacy proficiency have higher levels of social outcomes counting self-reported health status, volunteering, interpersonal confidence and political effectiveness.

There is a solid connection between literacy proficiency and political effectiveness among tertiary graduates. On average across OECD countries, the gap in the percentage of adults reporting that they trust they have a say in government between tertiary graduates with the highest and lowest literacy proficiency is 21 percentage points and the difference in the percentage of adults reporting that they volunteer at least once a month between low-educated adults with the highest and lowest literacy proficiency is 8 percentage points<sup>80</sup>.

### **What are the financial incentives to invest in education?**

This indicator examines incentives to invest in education by estimating the value of education across OECD countries. The financial returns to education are calculated for the costs and benefits associated with investment minus the discounted values of private and public education<sup>81</sup>. Countries, profit over reduced public spending on social welfare programs and incomes received over taxes paid once people enter the labor market. It is fundamental for policy makers to comprehend the economic incentives for individuals to invest in education. It should be kept in mind that a host of education-related and contextual factors not reflected in this indicator affect the financial returns to education. These comprise the field of study, countries' specific economic situation, labor market context and institutional setting, as well as social and cultural factors<sup>82</sup>.

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<sup>79</sup> OECD indicators, Education at a Glance ,2015, p152-153

<sup>80</sup> OECD indicators, Education at a Glance ,2014, p172

<sup>81</sup> OECD indicators, Education at a Glance ,2009, p152

<sup>82</sup> OECD indicators, Education at a Glance ,2014, p150-151



### **Where are the gender gaps in education and employment?**

To compete effectively countries, need to improve the potential of all their populations. They need to guarantee that men and women develop the right skills and catch opportunities to use them effectively. In education, many countries have succeeded to close gender gaps in learning outcomes. In fact, as women now exceed men in many parts of education in OECD countries. Gender equality is economically valuable and education curriculums that appeal contenders of one gender are in danger of rejecting many talented scholars. OECD countries have made important advancement in reduction gender gaps in education and employment. New gender gaps in education are opening, young men are more likely to have low skills and poor academic achievement than young women. In tertiary education and beyond, young women are still underrepresented in the fields of mathematics, physical science and computing<sup>83</sup>.

### **What is the impact of skills on employment and earnings?**

Basic literacy, numeracy and problem-solving skills are usually learned in formal schooling. But adults who have achieved the equal level of education can have dissimilar levels of proficiency in literacy, numeracy and in skills of using (ICT) to solve problems. Improving the schooling of literacy and numeracy for adults with humble skills of (ICT) may provide significant economic returns for society. Among adults with tertiary education and those with upper secondary or post-secondary no tertiary education, skills in using ICT for problem solving are connected with higher incomes compared to adults who are equally proficient in numeracy, and proficiency in numeracy yields higher returns than equivalent proficiency in literacy<sup>84</sup>.

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<sup>83</sup> OECD indicators, Education at a Glance ,2015, p188

<sup>84</sup> OECD indicators, Education at a Glance ,2015, p166

### ***1.1.3.2.1.2. Chapter two: Financial and human resources invested in education***

This chapter consists of seven indicators concerns with financial and human resources invested in education.

#### **What proportion of national wealth is spent on education?**

This indicator offers a measure of spending on education relative to GDP. Spending on education contains expenditure by governments, enterprises and students<sup>85</sup>. Spending on education is an investment that help foster economic growth, improve productivity, add to personal and social development, and decrease social inequality. Relative to GDP, spending on education shows the importance a country gives to education. Given that spending on education mainly comes from public budgets, when governments are being pressed to cut expenditure, spending on education usually get affected<sup>86</sup>. Tuition fees and investment in education from private entities other than households have a large influence on differences in the overall amount of financial resources that OECD countries dedicate to their education systems<sup>87</sup>.

#### **How much is spent per student?**

This indicator offers a valuation of the investment made in each student. Spending per student is influenced by teacher, pension systems, teaching ingredients and facilities and the total of students registered. Strategies put in place to entice new educators and decrease average class size<sup>88</sup>. The call for high quality education interprets into higher costs per student, which is a burden on taxpayers in addition to other demands on public spending. Strategy makers must equilibrium improving the quality of education with other demands on

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<sup>85</sup> OECD indicators, Education at a Glance ,2015, p227

<sup>86</sup> OECD indicators, Education at a Glance ,2011, p225

<sup>87</sup> OECD indicators, Education at a Glance ,2010, p208

<sup>88</sup> OECD indicators, Education at a Glance ,2002, p170

public expenditure. In many OECD countries, expenditure has not kept up with expanding enrolments.<sup>89</sup>

At the primary and secondary levels, 93% of total spending per student goes to essential educational services. Larger differences are seen at the tertiary level, because spending on research and development represents an average of 30% of total spending per student. From 2000 to 2008, spending per student by tertiary educational establishments enlarged by 14 percentage points on average in OECD countries after having stayed unchanging between 1995 and 2000<sup>90</sup>.

### **What is the total public spending on education?**

This indicator offers total public spending on education, relative to both a country's total public expenditure and to its gross domestic product, to account for the relative sizes of public budgets. It contains data on the diverse sources (central, regional and local government) of public funding invested in education and on the transfers of funds between these levels<sup>91</sup>. Nations' choices regarding budget distributions depend not only on the nations' priorities, but also on whether markets can deliver those services sufficiently. Markets may fail to do so if the public benefits are greater than the private benefits<sup>92</sup>.

The percentage of public spending dedicated to primary to tertiary education shrank between 2005 and 2012 in approximately two-thirds. During the period 2008-12, the share of public spending dedicated to primary to tertiary education diminished by 2% as public spending on education raised at a lower rate than public spending on all other services in OECD nations<sup>93</sup>.

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<sup>89</sup> OECD indicators, Education at a Glance ,2014, p104

<sup>90</sup> OECD indicators, Education at a Glance ,2011, p206

<sup>91</sup> OECD indicators, Education at a Glance ,2013, p211

<sup>92</sup> OECD indicators, Education at a Glance ,2014, p250

<sup>93</sup> OECD indicators, Education at a Glance ,2015, p252

### **How much public and private investment in education is there?**

This indicator studies the percentage of public and private funding allocated to education. It sheds some light on the broadly discussed problem of how the financing of education should be shared among public and private institutions. It also looks at public funding relative to the size of education systems and at how public funding is allocated between public and private institutions<sup>94</sup>.

The equilibrium between public and private financing of education is a significant strategy matter in all OECD countries. The discussion is intense with the funding for tertiary education. Some are worried that the balance between public and private funding should not discourage possible students from entering tertiary education. Others have faith that countries should considerably rise public sustenance to students, while others support efforts to raise funding private enterprises<sup>95</sup>. In all OECD nations public funding on education increased between 2000 and 2008. Private expenditure augmented at an even superior rate in more than three-quarters of nations and, on average among OECD nations, the portion of private funding for education improved between 2000 and 2008<sup>96</sup>.

### **On what resources and services is education funding spent?**

This indicator labels the resources and services on which money for education is spent. Also offers details on current spending affected by teachers' salaries and pension systems, the age distribution of teachers, and the size of the non-teaching staff employed in education. Other expenditures are addressed in this indicator such as meals, transport, housing services and research activities<sup>97</sup>.

While savings can be made by cutting current expenditure such as not purchasing certain teaching materials, and some capital expenditure such as not building new schools. Saving money by reducing salaries or cutting the number

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<sup>94</sup> OECD indicators, Education at a Glance ,2010, p222

<sup>95</sup> OECD indicators, Education at a Glance ,2013, p197

<sup>96</sup> OECD indicators, Education at a Glance ,2015, p232

<sup>97</sup> OECD indicators, Education at a Glance ,2015, p282

of teachers is detested and counterproductive because it discourages good teachers from wanting to enter or remain in the profession<sup>98</sup>.

In primary, secondary and post-secondary education combined, current spending for an average of 92% of total spending in OECD nations, and more than 70% of current spending is allocated to staff wages. At the tertiary level, OECD nations spend an average of 32% of current spending on purposes other than compensation of educational personnel. Mostly because of the higher cost of facilities and equipment<sup>99</sup>.

### **How much do tertiary students pay and what public support do they receive?**

This indicator studies the relations between annual tuition fees charged by tertiary establishments, direct and indirect public expenditure on education, and public subsidies to households for student living costs. It looks at whether financial subsidies for households are provided in the form of grants or loans and raises related questions. Are loans an effective means of growing the effectiveness of financial resources? Are scholarships and loans more common in nations with higher tuition fees? Are student loans less commonly used than grants to encourage low-income students to pursue their education?<sup>100</sup>

Strategy choices on tuition fees charged by educational establishments affect both the cost of tertiary education to students and the resources available to tertiary establishments. Subventions to students also serve as a way for governments to encourage involvement in education. In this way, governments can address problems of access and equality of opportunity<sup>101</sup>. Based on a particular amount of subventions, public sustenance, such as tax discounts or

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<sup>98</sup> OECD indicators, Education at a Glance ,2014, p278

<sup>99</sup> OECD indicators, Education at a Glance ,2011, p270

<sup>100</sup> OECD indicators, Education at a Glance ,2010, p244

<sup>101</sup> OECD indicators, Education at a Glance ,2011, p256

family allowances, could support to decrease financial inequalities amid families with children in education<sup>102</sup>.

A growing number of OECD nations charge higher tuition fees for international students than for national students. Nations with high levels of tuition fees tend to be those where private entities subsidize the most to funding tertiary establishments. An average of approximately 22% of public expenditure on tertiary education is dedicated to assistant students<sup>103</sup>.

### **Which factors influence the level of expenditure on education?**

This indicator studies the policy choices nations make when investing in primary and secondary education, such as the hours that students spend in the classroom, the number of teaching hours, class sizes and the salaries of teachers. However, some of these choices do not necessary reflect policy decisions but, rather, demographic changes, such as shrinking numbers of students<sup>104</sup>. First this indicator analyzes distinctly at primary, lower secondary and upper secondary levels of education, the differences in the combination of factors that influence the salary cost per student. Then the differences in salary cost per student between these levels of education are compared<sup>105</sup>. There are large differences in the salary cost of teachers per student between countries; in most countries, the salary cost of teachers per student increases with the level of education taught<sup>106</sup>.

### ***I.1.3.2.1.3. Chapter three: Access to education, participation and progression***

This chapter consists of six indicators concerns with access to education, participation and progression.

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<sup>102</sup> OECD indicators, Education at a Glance ,2015, p263

<sup>103</sup> OECD indicators, Education at a Glance ,2014, p260

<sup>104</sup> OECD indicators, Education at a Glance ,2015, p290

<sup>105</sup> OECD indicators, Education at a Glance ,2009, p274

<sup>106</sup> OECD indicators, Education at a Glance ,2013, p240

### **How do early childhood education systems differ around the world?**

The relative ages of parents changed as family structures changed. More people are waiting until later in life to start a family because most of them are committing to their careers before turning their attention to having children. They are waiting for greater financial security and emotional maturity. There is growing awareness of the role that early childhood education plays in the intellectual and emotional development of the young as parents are more likely to be in the workforce today. As a result, guaranteeing the quality of early childhood education and care has become a strategy priority in many countries<sup>107</sup>.

In many OECD nations, early childhood education services have prolonged with the change in women's involvement in the labor force. Early childhood education is linked with better performance in school later on. Fifteen-year-old students who go to at least one year of pre-primary education perform better on the (PISA) Program than those who did not. In most OECD nations, education now begins for most children well before they are 5 years old<sup>108</sup>.

### **Who participates in education?**

This indicator studies access to education using data on enrolment rates. It also shows patterns of involvement at the secondary and tertiary levels, and the proportional roles played by public and private suppliers of education across OECD nations<sup>109</sup>. Education systems in OECD nations deliver universal access to basic education. The growth of upper secondary education is both a reaction to growing demand and a consequence of several policy changes, ranging from more flexible curricula to efforts to expand access to education to the entire inhabitants.

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<sup>107</sup> OECD indicators, Education at a Glance ,2015, p322

<sup>108</sup> OECD indicators, Education at a Glance ,2013, p276

<sup>109</sup> OECD indicators, Education at a Glance ,2009, p292

Upper secondary education has become the lowest requirement for successful shift into the labor market and reduces the risk of unemployment. To help guarantee worthy returns for individuals, education systems must be able to help students obtain the skills they need to make them employable. The profound structural changes that have happened in the international labor market over the past years propose that better educated people will continue to have an advantage as the labor market becomes more and more knowledge-based<sup>110</sup>.

### **Who studies abroad and where?**

This indicator delivers an image of student mobility and of the internationalization of tertiary education in OECD nations. It highlights the key destinations of international students and the reasons underlying students' selections of country in which to study. This indicator shows the distribution by countries and regions, types of programs, and fields of study. The percentage of international students in tertiary enrolments delivers a decent signal of the magnitude of student mobility in different nations<sup>111</sup>.

Student mobility has augmented due to the exploding demand for tertiary education worldwide and value of studying at respected establishments overseas add to a growing stream of international students. The educational value linked with a varied student body, the considerable incomes earned from international students, and economic and political considerations encouraged governments and establishments to make efforts to charm students from overseas. In the existing economic environment, decrease sustenance for scholarships and grants, and tighter budgets for people, could slow the pace of student mobility<sup>112</sup>.

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<sup>110</sup> OECD indicators, Education at a Glance ,2015, p308

<sup>111</sup> OECD indicators, Education at a Glance ,2009, p308

<sup>112</sup> OECD indicators, Education at a Glance ,2015, p352-353



### **How many students are expected to enter tertiary education?**

Entry rates estimate the percentage of individuals who are estimated to enter a tertiary education program. They deliver some signs of the accessibility of tertiary education, the supposed value of attending tertiary programs, and the degree of attaining the high-level skills and knowledge that can generate knowledge-based economies. High enrolment rates indicate that a highly educated labor force is being developed and maintained<sup>113</sup>.

In OECD nations, the certainty that skills attained through higher education are treasured more than lower education. There is a common understanding that knowledge and innovation are key to nourishing economic growth. Tertiary establishments not only have to meet rising demand by increasing the number of chairs they offer; they also have to adjust their teaching approaches to match the diverse needs of a new generation of students<sup>114</sup>.

### **How many adults participate in education and learning?**

This indicator studies the involvement of the adult people in non-formal job-related education. It emphasizes on the time an individual is likely to spend in such education over a typical working life and the intensity of this education towards the end of the working life<sup>115</sup>. Adult education can play a significant role in assisting adults to improve and sustain important skills, and obtain other knowledge, through life. It is essential to deliver organized education chances for adults outside initial official education. In high-technology sectors, employees must to modernize their skills and keep pace with fast changing techniques. In general, the developed the productivity of an employee, the more attracted an employer might be in interested in hire him<sup>116</sup>.

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<sup>113</sup> OECD indicators, Education at a Glance ,2011, p308

<sup>114</sup> OECD indicators, Education at a Glance ,2015, p340

<sup>115</sup> OECD indicators, Education at a Glance ,2008, p398

<sup>116</sup> OECD indicators, Education at a Glance ,2015, p384

Across OCDE nations, more than 50% of adults participate in formal and/or non-formal education. Involvement in formal and/or non-formal education is strongly related to proficiency levels in literacy, educational attainment, age group, labor force status and parents' education.

### **Transition from school to work: where are the 15-29-year-olds?**

This indicator displays the number of years that young adults are likely to spend in education, employment and non-employment, and records their position by gender. The indicator also tracks the length of unemployment spells and the percentage of young adults in part-time work. When students have finished their initial education, they may face periods of unemployment<sup>117</sup>.

To advance the shift from school to work, education systems must target that people have the skills that are desirable in the labor market. Public investment may possibly be directed to possible employers in the form of enticements to employ young people. The extent and the value that people obtain from education have an influence on students' shift from education to work. In some nations, young people complete education before they look for work; in others, education and occupation are parallel<sup>118</sup>.

### ***1.1.3.2.1.4. Chapter four: The learning environment and organization of schools***

#### **What is the student-teacher ratio and how big are classes?**

This indicator studies the number of students per class at the primary and lower secondary levels and the percentage of students to teaching staff at all levels; it differentiates between public and private establishments<sup>119</sup>. The percentage of students to teaching staff specifies how resources for education are allocated. Smaller student-teacher proportions often have to be considered in contrast to

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<sup>117</sup> OECD indicators, Education at a Glance ,2009, p36

<sup>118</sup> OECD indicators, Education at a Glance ,2015, p370-371

<sup>119</sup> OECD indicators, Education at a Glance ,2008, p424

higher wages for educators. As higher numbers of children with special needs are joined into normal classes, more use of specialized personnel and support services could bound the resources accessible for reducing student-teacher proportions.

The average primary school class in OECD nations has more than 21 students, but classes are generally bigger in G20 nations that are not OECD members. Primary school classes had a tendency to become smaller between 2000 and 2011. On average across OECD nations, the number of students per class raises by two or more students between primary and lower secondary education<sup>120</sup>.

### **How much time do students spend in the classroom?**

This indicator studies the amount of teaching time that students are likely to obtain between the ages of 7 and 15. It also discusses the relationship between teaching time and student education outcomes<sup>121</sup>. Providing education in formal classroom settings accounts for a large percentage of public investment in education. Nations make several choices regarding the overall amount of time dedicated to teaching and which topics are necessary. These choices reflect national priorities and preferences regarding what material students should be educated and at what age.

These are most often required as the minimum number of hours of teaching a school need offer. Corresponding resources with students' desires and making ideal use of time are essential to education strategy. Teachers' wages, institutional preservation constitute the core costs of education. The length of time during which these resources are made accessible to students is a significant factor in determining how funds for education are allocated<sup>122</sup>.

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<sup>120</sup> OECD indicators, Education at a Glance ,2013, p364

<sup>121</sup> OECD indicators, Education at a Glance ,2007, p360

<sup>122</sup> OECD indicators, Education at a Glance ,2015, p403

### **How much time do teachers spend teaching?**

This indicator emphasizes on the statutory working time and statutory education time of teachers at different levels. While working time and education time define teachers' actual workload, they do provide valuable understanding into differences in what is required of educators in different nations. Together with educators' wages and typical class size, this indicator offerings some important measures of the working lives of teachers<sup>123</sup>. The percentage of statutory working time consumed on education delivers data on the amount of time obtainable for non-teaching activities like lesson preparation, correction and staff assemblies. A big percentage of statutory working time spent education may point to less time is dedicated to evaluating students and preparing lessons. It also could point toward that educators have to execute these responsibilities on their own time<sup>124</sup>. Rules regarding educators' obligatory working time differ. In most nations, educators are legally obligatory to work an exact number of hours; in some nations, education time is only stated by the number of lessons per week and assumptions may be made about the amount of non-teaching time mandatory per lesson<sup>125</sup>.

### **How much are teachers paid?**

This indicator displays the starting, mid-career and maximum statutory wages of educators in public primary and secondary education, and several supplementary payments to reward educators. Composed with teachers' working and education time, this indicator offers important measures of teachers' working lives. Variances in teachers' wages and student-to-staff proportions, deliver some clarification of the differences in spending per student<sup>126</sup>.

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<sup>123</sup> OECD indicators, Education at a Glance ,2009, p404

<sup>124</sup> OECD indicators, Education at a Glance ,2015, p450

<sup>125</sup> OECD indicators, Education at a Glance ,2010, p409

<sup>126</sup> OECD indicators, Education at a Glance ,2008, p440

Teachers' wages signify the main single cost in formal education and have a direct influence on the allure of the teaching profession. They effect choices to become an educator. The financial crisis put pressure on policy makers to decrease public spending on public payrolls. However, payments and working environments are essential for charming and retaining high-quality teachers<sup>127</sup>.

**What evaluation and assessment mechanisms are in place?**

More and more mechanisms of the education system became goals for evaluation that focused on specific programs. Evaluation is founded on data that is frequently collected, includes evaluating the quality of programs, teachers, and schools. Data for evaluations are collected in a multiple of methods concluded student examinations, school inspections and reports of schools' compliance with regulations. Most nations use a mixture of these instruments, sometimes as part of a bigger structure of liability<sup>128</sup>.

**To what extent is information and communication technology used in teaching and learning?**

In all (OECD) nations, information and communication technology (ICT) is a key element of economic development. Young and old individuals nowadays must be experienced in using these technologies because those who have no knowledge in using ICT will find it hard to take part in economic life. However, simple ICT skills do not increase value without they are combined with cognitive and communication skills, teamwork and perseverance. Schools require adequate ICT resources to aid students to learn and benefit from these technologies. ICT can also benefit educators to work more professionally. The fast progresses in technology, and the role ICT plays in all aspects of life, requires to guarantee students' access to ICT resources to deliver equitably within education systems<sup>129</sup>.

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<sup>127</sup> OECD indicators , Education at a Glance ,2014,p454

<sup>128</sup> OECD indicators , Education at a Glance ,2015,p475

<sup>129</sup> OECD indicators , Education at a Glance ,2015,p515

### **What teacher and school leader appraisal systems are in place?**

Observing educators is essential to enlightening universities and knowledge environments. If well planned, teacher feedback systems are liable to rise teacher efficacy and accomplish better education outcomes. Appraisal offer a chance to identify and prize effective teaching. Supported by a rising research base, strategy makers have become more and more aware of the importance of school leadership for effective learning. A rising number of nations have advanced initiatives to reinforce the leadership ability of their universities. While research on the special effects of diverse evaluation systems is restricted, some proof advocates possible benefits of the evaluation of individual school leaders as a means of interactive a vision of effective leadership and improving school leaders' practices<sup>130</sup>.

#### ***1.1.3.2.2. The Program for International Student Assessment (PISA)***

The Program for International Student Assessment (PISA) is a worldwide valuation that measures 15-year-old students' reading, mathematics, and science literacy every three years. Originally conducted in 2000. PISA as well contains measures of general competencies, such as collaborative problem solving. PISA assess students' in more than 70 nations. PISA 2015 also contains a collaborative problem-solving and financial literacy assessment. In 2018 (PISA) evaluated the global skills required to live in our interconnected and changing world. Global competence is defined as the capacity to:

- examine topics of local and global importance;
- comprehend and appreciate the viewpoints of others;
- engage in appropriate interactions across cultures;
- Take action for collective well-being and sustainable development.

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<sup>130</sup> OECD indicators , Education at a Glance ,2015,p492

The PISA 2018 relied on two instruments:

- a cognitive test focused on the cognitive aspects, including knowledge and cognitive skills;
- A set of questionnaire items collecting self-reported information from students, parents, teachers and school principals<sup>131</sup>.

### ***1.1.3.2.2.1. What makes PISA different?***

PISA is unique because of its:

- **Policy orientation**, which links statistics on student learning results with statistics on students' backgrounds and attitudes towards education, and with crucial elements that shape their learning, in and outside of school.
- **Innovative concept of “literacy”**, which refers to students' ability to apply their knowledge in important areas, and to analyze and communicate successfully as they identify and solve problems in a diversity of circumstances.
- **Relevance to lifelong learning**, as PISA requests students to report on their motivation to study, their views about themselves, and their education plans.
- **Regularity**, which permits nations to monitor their growth in meeting key learning goals.
- **Breadth of coverage**, which, in PISA 2018, included all 37 OECD nations and 42 partner nations<sup>132</sup>.

### ***1.1.3.2.2.2. What the assessment involves?***

Since the year 2000, every three years, fifteen-year-old students from randomly designated schools worldwide take tests in the main subjects: reading, mathematics and science. In 2012, some countries also participated in the

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<sup>131</sup> PISA 2018; PISA Results; p 21

<sup>132</sup> PISA 2018 (Volume VI); p 48

voluntary valuations of Problem Solving and Financial Literacy. Students take an assessment that takes 2 hours. In each round of PISA, one topic is tested in detail. The key subject in 2018 was reading, as it was in 2000 and 2009. Science was the key subject in 2006 and 2015. And mathematics was the key subject in 2003 and 2012. With this irregular agenda, a detailed analysis of achievement in each of the three core topics is offered every nine years; an analysis of trends is presented every three years. In 2018, global competence was assessed as an innovative domain<sup>133</sup>.

### ***1.1.3.2.2.3. What kinds of results does the test provide?***

The PISA valuation delivers three key kinds of results, Basic indicators that offer a standard outline of students' knowledge and skills; Indicators that display how skills relate to important demographic variables; and Indicators on trends that display changes in student performance<sup>134</sup>.

### ***1.1.3.2.3. The Program for International Assessment of Adult Competencies (PIAAC)***

The Program for the International Assessment of Adult Competencies (PIAAC) measures the main cognitive and workplace skills needed for individuals to participate in the economic prospect. The indication from this Assessment will benefit nations better understand how education systems can develop these skills. Teachers and strategy makers will use this data to advance economic and education strategies that will improve the skills of adults. This international survey is conducted in over 40 countries. The Survey is administered every 10 years and has had two cycles so far. In the First Cycle, there were three rounds of data collection, between 2011 and 2018. In 2018, the Second Cycle of the Survey has begun, with results for this cycle to be published in 2024<sup>135</sup>.

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<sup>133</sup> PISA 2018, PISA Results, p 26

<sup>134</sup> PISA 2018, technical report, p41

<sup>135</sup> Technical Report of the Survey of Adult Skills (PIAAC), 2019, p03



#### ***1.1.3.2.3.1. The survey implementation:***

The survey is implemented by interviewing 5 000 adults aged 16 to 65 in each participating nation in their homes by responding questions via computer or via pencil-and-paper. The aim of the survey is measuring literacy and numeracy skills and the ability to solve problems in technology-rich environments. Also gathering a broad range of data, counting how skills are used at work and in the community.

#### ***1.1.3.2.3.2. The survey is designed to:***

The survey is designed to be valid cross-culturally and cross-nationally for countries to be able to administer the survey in their national languages and still obtain comparable results. Also to provide comparative analysis of skill-formation systems and their outcomes, and international benchmarking regarding adult skills. As a survey that will be repeated over time to allow policy makers to monitor the development of key aspects of human capital in their countries.

#### ***1.1.3.2.3.3. Beneficiaries from the Survey of Adult Skills***

Beneficiaries from the Survey are educators, strategy makers and experts that will use it to improve education policies that improve the skills of adults. International organizations also will use the data analysis to offer consultative services to countries. The eventual beneficiaries are peoples who will profit from effective strategy improvement and application<sup>136</sup>.

#### ***1.1.3.2.3.4. Goals and objectives:***

The goals and objectives of the survey according to the OECD Skills Policy are:

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<sup>136</sup> Technical Report of the Survey of Adult Skills (PIAAC) 2019,p04

- Developing talents and abilities by assuring that the supply of skills is suitable to meet current objective of skills strategies.
- Triggering talents and abilities of people and inspiring them to enter the labor force can increase the skills base of an economy.
- Pushing talents and abilities to effective use by investment in skills development by individuals and governments under policies that guarantee effective use of these skills.<sup>137</sup>

#### ***1.1.3.2.4. World economic forum: the human capital report***

The world economic forum is one of the most significant international organization devoted to improving the state of the world. The index come from data compiled by international organizations such as the United Nations Educational, Scientific and Cultural Organization (UNESCO); and the World Health Organization (WHO); the International Labor Organization (ILO). In addition to qualitative survey data from the World Economic Forum’s Executive Opinion Survey<sup>138</sup>.

The Human Capital Index covers 4 themes (Capacity, Deployment, Development and Know-how) organized through five vertical age group (Under 15; 15–24; 25–54; 55–64; and 65 and over. The Index’s Capacity sub index quantifies the existing stock of education across generations, the Deployment sub index covers active participation in the workforce across generations, the Development sub index reflects current efforts to educate, skill and upskill the student body and the working age population, and the Know-how sub index captures the growth or depreciation of working-age people’s skillsets through opportunities for higher value-add work<sup>139</sup>. (Figure 2)

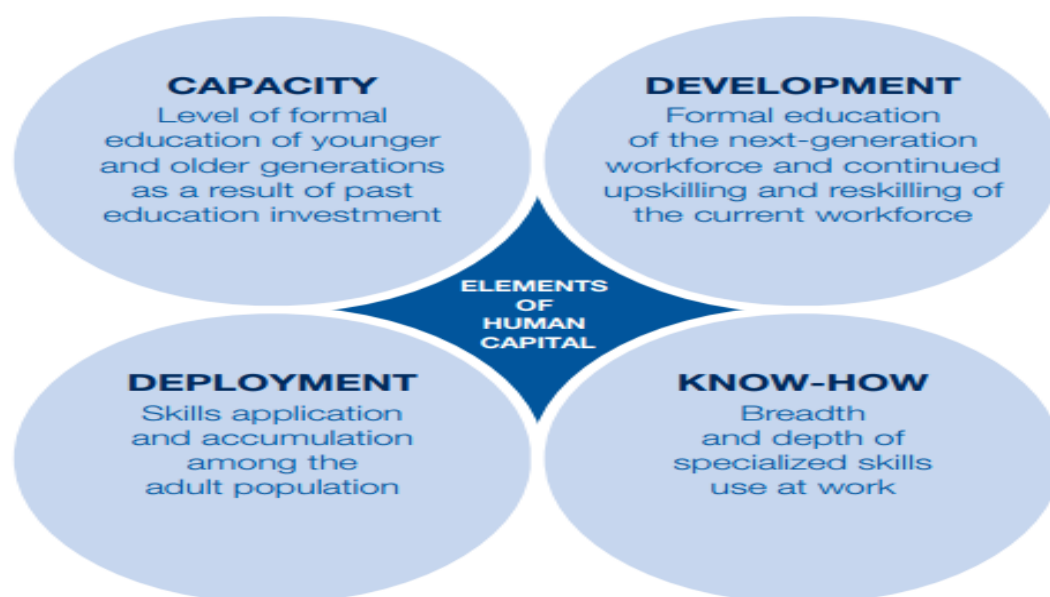
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<sup>137</sup> OECD Skills Strategy 2019,p22

<sup>138</sup> world economic forum human capital report 2017,p2

<sup>139</sup> world economic forum human capital report 2017,p3

**Figure 3: Elements of Human Capital**



**Source: the global human capital report 2017, page 03**

**Construction of the Human Capital Index.**

***1.1.3.2.4.1. Deployment***

The Deployment sub index measures how many people are able to contribute in the workforce and how successfully specific sectors of the people are able to contribute. Unemployment rates capture the subset of people currently out of a job but looking to work. The underemployment rate is the share of those currently employed and willing to work more. Counting those currently employed and looking for work, a country's labor force participation rate is the biggest measure of the share of its individuals contributing in the labor market. Gender gap in economic participation it remains a critical weakness in most labor markets around the world this why this measure is also included.

***1.1.3.2.4.2. Capacity***

The Capacity sub index features four mutual measures of formal educational attainment, separated through age groups. These capture the proportion of the

people that has reached at least primary, (lower) secondary or tertiary education, respectively, and the percentage of the people that has a basic level of literacy and numeracy<sup>140</sup>.

#### ***1.1.3.2.4.3. Know-how***

Know-how concerns the extent and complexity of specific skills use at work. Economic complexity is a degree of the amount of complexity of a country's "productive knowledge" as can be empirically detected in the superiority of its export goods. In addition, the Index measures the existing level disposal of high- and mid-skilled openings and, in parallel, manager's views of the struggle of filling vacancies.

#### ***1.1.3.2.4.4. Development***

This sub index concerns that formal education of the next-generation workforce and continued upskilling and reskilling of the current workforce. Access to education for today's youth is captured using net adjusted enrolment rates for primary school, secondary school, and tertiary enrolment ratios for the under 15 and 15–24 age groups. The Index contains a valuation of the skill variety of a nation's fresh graduates as a proxy for the variety of expertise accessible to a nation. The Index contains a measure of enrolment in vocational training programs, without making a value judgement in terms of index scoring. The Index also contains two qualitative indicators on the quality of primary education and if the education system meets the desires of a competitive economy. Finally, outcomes on lifelong learning among the adult workforce are captured through a measure of formal staff training<sup>141</sup>. (Appendix 2).

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<sup>140</sup> world economic forum human capital report 2017,p4

<sup>141</sup> world economic forum human capital report 2017,p4

### I.1.3.3. *Human capital in Algeria*

In this part we will take a general look on human capital in Algeria using the latest world economic forum report on human capital of 2017 which consider one of the few available and trusted data on human capital in Algeria.

*Figure 4 : human capital in Algeria*



Source: world economic forum human capital report 2017

In the 2017 report Algeria ranked 112 among 130 countries Covered by this report. This rank is very disappointing for a country with a good human resource (more than 70% are young) and great finance resources from the petroleum incomes.

*Table 1: Education in Algeria*

Capacity(rank 113)	Rank by age group			
	15-24	25-54	55-64	65+
Literacy and numeracy	88	71	91	91
Primary education attainment rate	113	112	119	124
Secondary education attainment rate	108	110	115	120
Tertiary education attainment rate		99	110	109

Source: world economic forum human capital report 2017

Algeria ranked 113 in general on education among 130 countries Covered by this report. When it comes to Literacy and numeracy Algeria ranked below 100 in all age groups (between 71 for “25-54” age group and 91 for “55-64” and +65 age groups). But when it comes to primary education attainment rate, secondary education attainment rate, and tertiary education attainment rate Algeria ranked over 100 in all this categories for all age groups, except in tertiary education attainment rate category for “25-54” age group Algeria ranked 99.

**Table 2: Deployment in Algeria**

<b>Deployment(rank 115)</b>	<b>Rank by age group</b>			
	<b>15-24</b>	<b>25-54</b>	<b>55-64</b>	<b>65+</b>
<b>Labour force participation rate</b>	118	127	129	118
<b>Employment gender gap</b>	130	128	128	127
<b>Unemployment rate</b>	105	79	26	

**Source: world economic forum human capital report 2017**

Algeria ranked 115 in general on deployment among 130 countries Covered by this report. In all three categories (labour force participation rate, employment gender gap, and unemployment rate) for all age groups Algeria ranked over 100, except for unemployment rate for age group “25-54” Algeria ranked 79, and for age group “54-65” Algeria ranked 26.

**Table 3: Development in Algeria**

Development (rank 82)	Rank by age group	
	0-14	15-24
Primary education enrolment rate	34	
Quality of primary schools	92	
Secondary education enrolment rate	5	
Vocational education enrolment rate		87
Tertiary education enrolment rate		68
Skill diversity of graduates		42
Quality of education system		78

Source: world economic forum human capital report 2017

Algeria ranked 82 in general on development among 130 countries Covered by this report. When it comes to primary education enrolment rate Algeria ranked 34, and on secondary education enrolment rate Algeria ranked 5. Which is so impressive, however when it comes to the quality of primary schools Algeria ranked 92. For age group “15-24” Algeria ranked between 42 for skill diversity of graduates, and 87 for vocational education enrolment rate.

### **Conclusion**

The concept of human capital used to be described as unrealistic from even economists and not just other people, but now it is a worldwide Recognized branch of science that attracts the intention of not just economists but politicians and all the components of the society. It’s true that investment in human capitals is a long-term investment but returns and profits are guaranteed. Today the stocks of human capital in developed countries are more superior to other forms of physical capitals. Not all countries are blessed with naturel resources, but all countries can develop human capital by a large rate, that’s what governments and nations should be proud of achieve and not extraction naturel resources.

Preservation of human capital from migration should be stricter and more important than protecting normal capitals, because losing one brilliant mind or a talented person worth million or billions I some cases. Finally, the investments in human capital should not be just about numbers, the quality is what make the deference between a nation and another. Accessing to basic education is a necessity for all citizens but the quality of higher education and scientific researches is what Distinguish super nations, so this is the pathway for Algeria to become one of them.



# **Theoretical Chapter**

## **Part Two**

### **Leadership in Academic Institution**

## ***1.2. Leadership in Academic Institution***

### **Introduction**

This part covers the theoretical background of the empirical study. It starts by explaining reframing theory by Bolman and Deal (1991) by going deep into the four frames (Structural, Human Resource, Political and Symbolic). Then emphasize on how leaders in academic institutions should chose or integrate frames to be able to use reframing theory to lead. The second theory covered in this part is Models of organizational functioning by Robert Birnbaum. He proposed that academic institutions can be categorized into four simple organizational models (collegial, bureaucratic, political and anarchical). These two theories combined are so helpful to understand leadership in academic institutions. They have a lot of similarities and common cross paths. Finally, this part end with a presentation of the evolution of the Algerian higher education.

### ***1.2.1. Reframing theory by Bolman and Deal (1991)***

Lee Bolman and Terrence Deal's published their first book in 1984 as "Modern Approaches to Understanding and Managing Organizations". Seven years after that the first edition of "Reframing Organizations: Artistry, Choice, and Leadership" was published in 1991. New editions of reframing theory were published in 1997, 2003, 2008, 2013 and 2017 with a revised content and including updated case studies

Bolman and Deal's (1991) reframing theory is a cognitive leadership theory and embodies the constructivist model of leadership studies. In it they try to integrate diverse schools of organizational thought into a comprehensible model of organization and leadership. Reframing theory is referred to as the four-frame of leadership. A frame is a cognitive framework, a lens which aids us to decide what is significant and what is not, what to see, what to do, what data to collect, and how to outline problems. Leadership frames are used in a range of methods: to resolve difficulties, to understand events, to overlook problems that can be

safely ignored. The frames affect what enquiries are requested, which data to collect, how problems are defined and what sequences of action should be taken<sup>142</sup>.

The frames select diverse characteristics of organizational behavior on which to emphasize, but they also function as cognitive blinders. Whatever is out of frame can be overlooked or not seen at all. The nature of frames is self-fulfilling, over their use descriptions that defend their point are developed, even though the perspective does not work. When a frame does not suite the organization or the circumstances, a leader is stuck in misunderstandings. Rather than answering to the situations, the frame stopes leaders to reply in a certain method. Rather than suiting the frame to the circumstances, leaders might shape the situation to fit their ideal conception<sup>143</sup>.

According to Bolman and Deal (1991), leaders must be capable to reframe by breaking the current frame and perceive the organization over a diverse lens. Multi-framing means a capability to use a diversity of different frames and makes leadership more effective. Leaders who are capable to use several frames are likely to be more flexible in answering to diverse administrative responsibilities since they are capable to enact diverse images of their organization and offer diverse understandings of events<sup>144</sup>.

#### ***1.2.1.1. The four frames in Bolman and Deal's and theory***

Bolman and Deal (1991) claimed that leaders must look at and approach organizational matters from four perspectives (Structural, Human Resource, Political and Symbolic).

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<sup>142</sup> bolman and deal, reframing organizations, San Francisco, Jossey-Bass, 2008, p 10

<sup>143</sup> bolman and deal, reframing organizations, San Francisco, Jossey-Bass, 2008, p 40

<sup>144</sup> bolman and deal, reframing organizations, San Francisco, Jossey-Bass, 2008, p 12-18-19

*Figure 5: overview of Bolman frames*

<b>Overview of the Four-Frame Model.</b>				
	<b>FRAME</b>			
	<b>STRUCTURAL</b>	<b>HUMAN RESOURCE</b>	<b>POLITICAL</b>	<b>SYMBOLIC</b>
Metaphor for organization	Factory or machine	Family	Jungle	Carnival, temple, theater
Central concepts	Rules, roles, goals, policies, technology, environment	Needs, skills, relationships	Power, conflict, competition, organizational politics	Culture, meaning, metaphor, ritual, ceremony, stories, heroes
Image of leadership	Social architecture	Empowerment	Advocacy and political savvy	Inspiration
Basic leadership challenge	Attune structure to task, technology, environment	Align organizational and human needs	Develop agenda and power base	Create faith, beauty, meaning

(Source: Bolman & Deal, 2008, p. 18)

### ***1.2.1.1.1. Structural frame***

The structural frame integrates the philosophies of the school of thought of rationalist theories. It echoes the theories of scientific management and organizational theorists such as Frederick W. Taylor (1911), Henri Fayol (1916) and Max Weber (1922). The structural frame underlines goals and efficiency. It adopts that leader's function by outlining clear goals. The organizations separate individuals into exact roles, and organize different actions through policies, rules, and chain of command. Structural leaders, value analysis and data, establish clear instructions, keep their eye on the bottom line, hold individuals responsible for results, and attempt to resolve organizational difficulties with

restructuring. This frame emphasizes on org charts, policies, efficiency, and effectiveness<sup>145</sup>.

The attributes of this frame: the metaphor for academic institution is “Factory”. The basic leadership task is dividing and coordinate the work. The images of the academic leader is institutional architect, analyst and systems designer. The leadership logic is rational. The leadership currency is clarity. The frame emphasis on formal roles and relationships. The key leadership assumptions are specialization increases efficiency, clarity and control enhance performance and problems result from structural misalignment. The areas of analysis are rules, roles, policies and procedures, lines of authority, technology and environment. Leaders who take a structural view structure their own work, their organizations and structure the change process<sup>146</sup>.

### **Architect or Tyrant? Structural Leadership**

Structural leadership usually bring to mind pictures of despicable tyrants and strict bureaucrats. Some structural theorists have debated that leadership is not important and in contrast with other frames, literature on structural leadership is sparse. But even if the style is subtler and more analytic than other forms, the effects of structural leadership can be powerful and enduring. Effective structural leaders share numerous features: They rethink the relationship of structure, strategy, and environment. They do their homework and focus on implementation. And they experiment<sup>147</sup>.

#### ***1.2.1.1.2.Human resources frame***

The human resource frame developed from the work of pioneers such as Elton Mayo (1933) and Abraham Maslow (1954). The human resource frame emphases on human needs and presume that organization will work better if it

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<sup>145</sup> Mabel Tan, Tie Fatt Hee , A Qualitative Analysis of the Leadership Style, Malaysia, UCSI University , 2015 , p1

<sup>146</sup> Rick Mann, Reframing academic leadership, 2013

<sup>147</sup> Bolman and Deal, Reframing Organizations; 2008; pages 356

meets those basic needs. Human resource leaders appreciate relationships and feelings and they lean to outline issues in interpersonal terms. They seek to bend the organization to suit individuals or to bend the individuals to suit the organization. A good “fit” between individual and organization benefits both whereas when the fit is poor, one or both will suffer <sup>148</sup>.

The frame details are the metaphor for academic organization is “extended family”. The basic leadership task is facilitating the alignment between individual and organizational needs. The images of the academic leader are servant, catalyst and a coach. The frame emphasis on satisfaction, motivation, productivity, empowerment and skills development. The leadership logic is attending to people. The leadership currency is care. The key leadership assumptions are institutions and individuals need each other, individual-organizational alignment benefits both sides, productive relationships are vital to organizational health, and learning is central to productivity and change. The areas of analysis are needs, skills and relationships. Leaders who take a human resource view build teamwork through open communication, empowerment, effective teams for collective action, support, coaching, and care and hiring the right people<sup>149</sup>.

### **Catalyst or Wimp? Human Resource Leadership**

Human resource theorists, usually promote openness, listening, caring, mutuality, participation, coaching, and empowerment. They see the leader as a facilitator and catalyst who uses emotional intelligence to motivate and empower subordinates. The leader’s power comes from talent, sensitivity, caring, and service rather than position or force. Effective Human resource

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<sup>148</sup> Mabel Tan, Tie Fatt Hee , A Qualitative Analysis of the Leadership Style, Malaysia, UCSI University , 2015 , p1

<sup>149</sup> Rick Mann, reframing academic leadership, 2013

leaders share numerous features: they communicate their strong belief in people. They are visible and accessible. And they empower others<sup>150</sup>.

### ***1.2.1.1.3. Political frame***

The political frame presumes that organizations are alliances composed of people and interest groups rivaling for rare assets. There are continuing differences in the principles and morals of individuals which lead to conflict. Conflict is perceived as a normal product of collective action. Political leaders devote most of their time constructing a power base, building coalitions and negotiating compromises<sup>151</sup>. The first main talent in this frame is to understand and connect with several groups. The second main talent is to be capable to accommodate and integrate the desires these groups. The last main talent is to improve the skill to accommodate various opinions, negotiate sticking ideas and be capable to offer collaborative resolutions.

The political framework details are the metaphor for academic institution is “Jungle”. The image of the academic leader is advocate, negotiator and political strategist. The basic leadership task is bargain, negotiate, build coalitions, set agendas and manage conflict. The leadership logic is distributive justice. The leadership currency is empowerment. The frame emphasizes on allocation of power and scarce resources. The key leadership assumptions are differences are enduring, resources are scarce, conflict is inevitable and key decisions involve who gets what. The areas of analysis are power, conflict, resources, interests, agendas and alliances. Leaders who take a political view set agenda, map the political terrain, build coalitions and negotiate<sup>152</sup>.

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<sup>150</sup> Bolman and Deal, *Reframing Organizations*; 2008; pages 359

<sup>151</sup> Mabel Tan, Tie Fatt Hee, *A Qualitative Analysis of the Leadership Style*, Malaysia, UCSI University, 2015, p2

<sup>152</sup> Rick Mann, *reframing academic leadership*, 2013

### *Advocate or Hustler? Political Leadership*

Leaders discover that they must plunge into the political arena to move their establishment where it needs to go. Effective political leaders share numerous features: they clear up what they need and what they can acquire. They evaluate the sharing of power and interests. They form bonds to main stakeholders. And they persuade first, negotiate second, and coerce only if obligatory<sup>153</sup>.

#### *1.2.1.1.4. The symbolic frame*

The symbolic frame considers the world a chaotic place in which facts are interpretative rather than objective and meaning and predictability are social creations. Human behaviors in organizations are shaped by symbols and culture that offer a common sense of mission and identity. Symbols, myths, ceremonies, rituals, and sagas are created to decrease confusion and help individuals to find meaning from their experience. Symbolic leaders implant a sense of enthusiasm and commitment through charisma and drama. The leader tells the story of the preferred future and team members are inspired to follow the dream<sup>154</sup>.

The symbolic frame details are: the metaphor for academic institution is “theatre” or “temple”. The Image of the academic leader is an artist or a prophet. The basic leadership task are see possibilities; create common vision; manage meaning; infuse passion and creativity. The leadership logic is building faith and shared meaning. The leadership currency is hope and promise. The frame emphasis on meaning, purpose and values. The key leadership assumptions are that people interpret experience differently, meaning making is a central organizational process and culture is an institution’s identity. The areas of analysis are culture, rituals, ceremonies, stories, myth, vision and symbols. Leaders who take a symbolic approach view new vision of the future by

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<sup>153</sup> Bolman and Deal, *Reframing Organizations*; 2008; pages 362

<sup>154</sup> Mabel Tan, Tie Fatt Hee , *A Qualitative Analysis of the Leadership Style*, Malaysia, UCSI University , 2015 , p2



building on the past, they lead by example and constructing a heroic narrative and telling it often, also leveraging the power in ritual and ceremony<sup>155</sup>.

**Prophet or Zealot? Symbolic Leadership**

The symbolic frame portray organization as both theater and temple. As theater, an organization generates a stage on which actors play their roles and hope to connect the right impression to their spectators. As temple, an organization is a community of faith, attached by common beliefs, traditions, myths, rituals, and ceremonies. Effective symbolic leaders share numerous features: *they lead by example and* use symbols to capture attention. They frame experience and communicate a vision. They use history tell stories<sup>156</sup>.

**Figure 6: leadership effectiveness**

<b>Reframing Leadership.</b>				
<b>FRAME</b>	<b>LEADERSHIP IS EFFECTIVE WHEN</b>		<b>LEADERSHIP IS INEFFECTIVE WHEN</b>	
	<b>LEADER IS:</b>	<b>LEADERSHIP PROCESS IS:</b>	<b>LEADER IS:</b>	<b>LEADERSHIP PROCESS IS:</b>
Structural	Analyst, architect	Analysis, design	Petty bureaucrat or tyrant	Management by detail and fiat
Human resource	Catalyst, servant	Support, empowerment	Weakling, pushover	Abdication
Political	Advocate, negotiator	Advocacy, coalition building	Con artist, thug	Manipulation, fraud
Symbolic	Prophet, poet	Inspiration, meaning-making	Fanatic, charlatan	Mirage, smoke and mirrors

**Source: *Reframing Organizations*; Bolman and Deal; 2008; pages 355**

<sup>155</sup> Rick Mann, REFRAMING ACADEMIC LEADERSHIP, 2013

<sup>156</sup> Bolman and Deal, *Reframing Organizations*; 2008; pages 366

Reframing propose an opportunity to get past oversimplified and constricted visions of leadership. Each frame proposes a unique picture of the leadership process. Base on leader and situation, each frame can expose constructive and compelling leadership chances, even though no frame is right for all times and seasons.

**I.2.1.2. Integrating Frames**

Life in organizations is filled with activities that can be understood in a number of methods. As the chart demonstrate, any happening can be framed in numerous ways and serve numerous purposes. Several realities produce confusion and conflict as people look at the same event through different lenses. Planning, for example, produces specific objectives. But it also creates arenas for airing conflict and becomes a sacred occasion to renegotiate symbolic meanings.<sup>157</sup>.

**Figure 7: Integrating Frames**

<i>Process</i>	<i>Structural</i>	<i>Human Resources</i>	<i>Political</i>	<i>Symbolic</i>
<b>Strategic Planning</b>	Strategies to set objectives and coordinate resources	Gathering to promote participation	Arenas to air conflicts and realign power	Ritual to signal responsibility, produce symbols, negotiate meanings
<b>Decision Making</b>	Rational sequence to produce right decision	Open process to produce commitment	Opportunity to gain or exercise power	Ritual to confirm values and provide opportunities for bonding
<b>Reorganizing</b>	Realign roles and responsibilities to fit tasks and environment	Maintain balance between human needs and formal roles	Redistribute power and form new coalitions	Maintain image of accountability and responsiveness;

<sup>157</sup> bolman and deal, reframing organizations, San Francisco, Jossey-Bass, 2008, page 313

				negotiate new social order
<b>Evaluating</b>	Way to distribute rewards or penalties and control performance	Process for helping individuals grow and improve	Opportunity to exercise power	Occasion to play roles in shared ritual
<b>Approaching conflict</b>	Maintain organizational goals by having authorities resolve conflict	Develop relationships by having individuals confront conflict	Develop power by bargaining, forcing, or manipulating others to win	Develop shared values and use conflict to negotiate meaning
<b>Goal Setting</b>	Keep organization headed in right direction	Keep people involved and communication open	Provide opportunity for individuals and groups to make interests known	Develop symbols and shared values
<b>Communication</b>	Transmit facts and information	Exchange information, needs, and feelings	Influence or manipulate others	Tell Stories
<b>Meetings</b>	Formal occasions for making decisions	Informal occasions for involvement, sharing feelings	Competitive occasions to win points	Sacred occasions to celebrate and transform the culture
<b>Motivation</b>	Economic incentives	Growth and self-actualization	Coercion, manipulation, and seduction	Symbols and celebration

**Source:** *Reframing Organizations*; Bolman and Deal; 2008; pages 315

### ***1.2.1.3. Choosing a Frame***

The following Exhibit poses questions to ease analysis and arouse instinct. It also proposes circumstances under which each method of thinking is most likely

to be effective. In a known state, one cognitive map may be more supportive than others. At a strategic crossroads, a rational process dedicated on collecting and analyzing data may be precisely what is required. At other times, increasing commitment or construction a power base may be more important. In times of unlimited pressure, decision procedures may convert to formula of ritual that carries comfort and support. Selecting a frame to magnitude things, or sympathetic others' viewpoints, includes a mixture of analysis, intuition, and artistry<sup>158</sup>.

**Figure 8: Choosing a Frame**

<b>Choosing a Frame.</b>		
<b>QUESTION</b>	<b>IF YES:</b>	<b>IF NO:</b>
Are individual commitment and motivation essential to success?	Human resource Symbolic	Structural Political
Is the technical quality of the decision important?	Structural	Human resource Political Symbolic
Are there high levels of ambiguity and uncertainty?	Political Symbolic	Structural Human resource
Are conflict and scarce resources significant?	Political Symbolic	Structural Human resource
Are you working from the bottom up?	Political	Structural Human resource Symbolic

**Source:** *Reframing Organizations*; Bolman and Deal; 2008; pages 317

***1.2.1.3.1. Are commitment and motivation essential to success?***

The human resource and symbolic frames must to be contemplate when matters of individual devotion, energy, and skill are critical to success. Support might be

<sup>158</sup> bolman and deal, reframing organizations, San Francisco, Jossey-Bass, 2008, p 317

reinforced by human resource frame, such as participation and self-managing teams, or through symbolic frame connecting the values the group<sup>159</sup>.

#### ***1.2.1.3.2. Are ambiguity and uncertainty high?***

The structural and human resource frames are expected to be applied when objectives are clear, technology is well understood, and behavior is rationally expectable. As uncertainty rises, the political and symbolic frames become more relevant. The political frame assumes that the pursuit of self-interest will frequently produce confused and chaotic contests that necessitate political interference. The symbolic frame perceives symbols as a method of discovering order, meaning, and truth in states too complex, uncertain, or mysterious for rational or political analysis<sup>160</sup>.

#### ***1.2.1.3.3. Is the technical quality important?***

The structural frame's emphasis on data and logic is crucial when a good decision require to be technically sound. But if a decision need be satisfactory to major constituents, then human resource, political, or symbolic matters appear larger.

#### ***1.2.1.3.4. Are you working from the bottom up?***

Reorganization is a choice mainly for those in a position of authority. Human resource approaches to development such as training, job enrichment, and participation typically require support from the top to be fruitful. The political frame, in comparison, fits well for changes started from below. Because partisans change agents lower in the pecking order infrequently can depend on formal clout, they must find other bases of power, such as symbolic acts to draw attention to their cause and humiliate adversaries<sup>161</sup>.

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<sup>159</sup> bolman and deal, reframing organizations, San Francisco, Jossey-Bass, 2008, p 318

<sup>160</sup> bolman and deal, reframing organizations, San Francisco, Jossey-Bass, 2008, p 318

<sup>161</sup> bolman and deal, reframing organizations, San Francisco, Jossey-Bass, 2008, p 319

### ***1.2.1.3.5. Are conflict and scarce resources significant?***

Human resource logic fits best in circumstances preferring partnership as in profitable, growing firms or highly unified schools. But when struggle is high and resources are rare, dynamics of clash, power, and self-interest often come to the fore.

### ***1.2.2. Models of organizational functioning by Robert Birnbaum (1988)***

Robert Birnbaum (1988) proposed that academic leadership can be categorized into four simple organizational models: collegial, bureaucratic, political and anarchical. He defined these models in his 1988 book “How Colleges Work: The Cybernetics of Academic Organization and Leadership”. For Birnbaum a model is a concept of reality that permits us to comprehend and prophesy the dynamics of the system that it represents. Models are rarely right or wrong; they are just a tool for exploring diverse characteristics of organizational functioning. A model functions as a lens that focuses our attention on some specific organizational dimensions and it automatically obscures other dimensions. Models generate perceptual frames on the world by filtering out some stuffs while permitting others to pass through easily. No model of a complex system such as a university can be a flawless illustration of that system, but some models seem to reveal what usually happens in some parts of some organizations and thus advocate useful courses of action<sup>162</sup>.

#### ***1.2.2.1. The Bureaucratic Institution:***

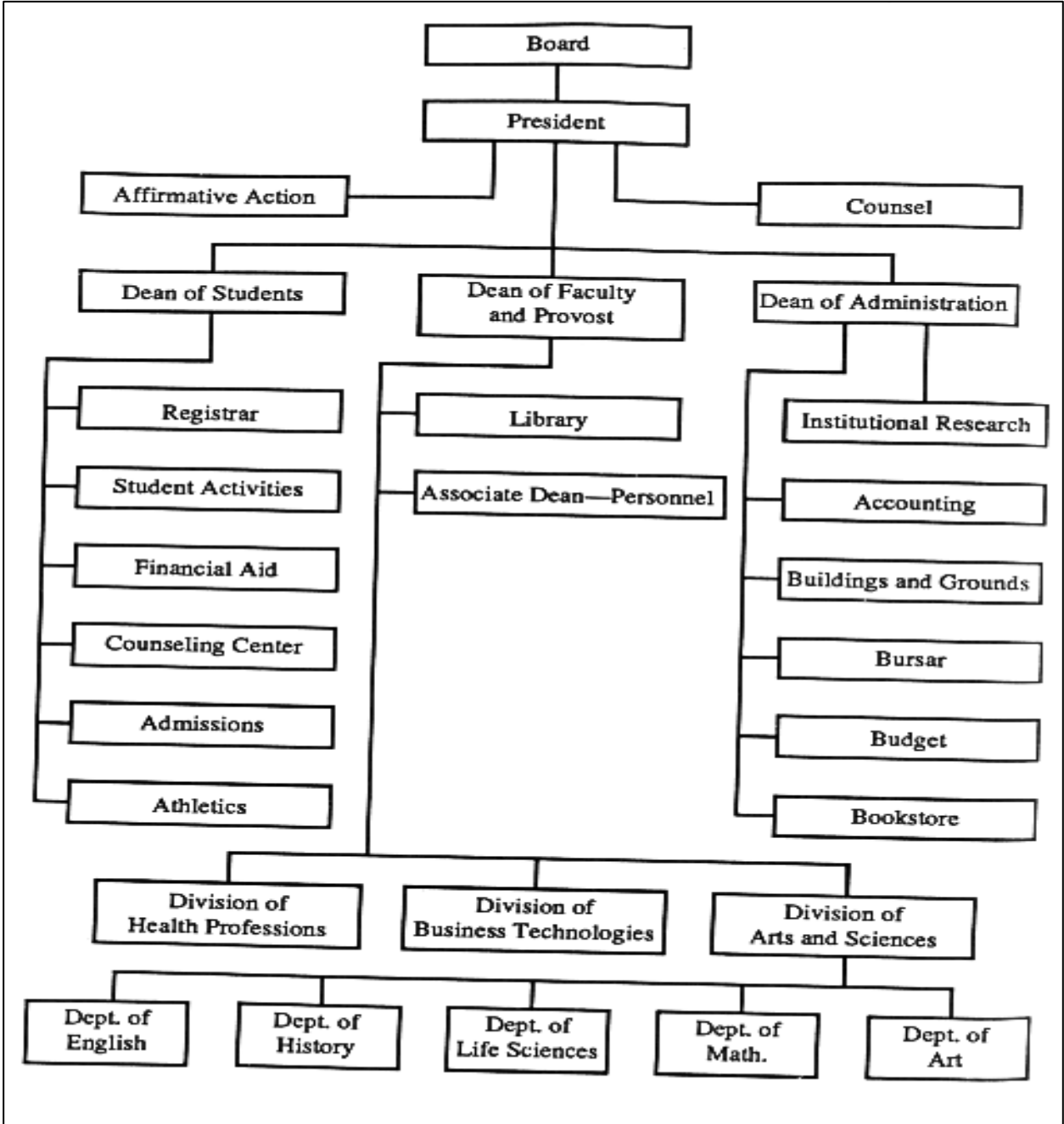
In a bureaucratic organization, everybody is basically a component in the machine. The organization is distributed into hierarchical departments, each with purposes and limitations well-defined by printed job descriptions. This model forces order with precise methods that increase efficiency by decreasing organizational unnecessaryness and limiting decisional authority. As the

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<sup>162</sup> Bolman and Deal, Modern approaches to understanding and managing organizations, 1984, p. 4

bureaucratic structure’s authority streams downward, it can permit for more decisive leadership. However, its methods and restrictions are question to interpretation, which can end in puzzling overlaps of authority.

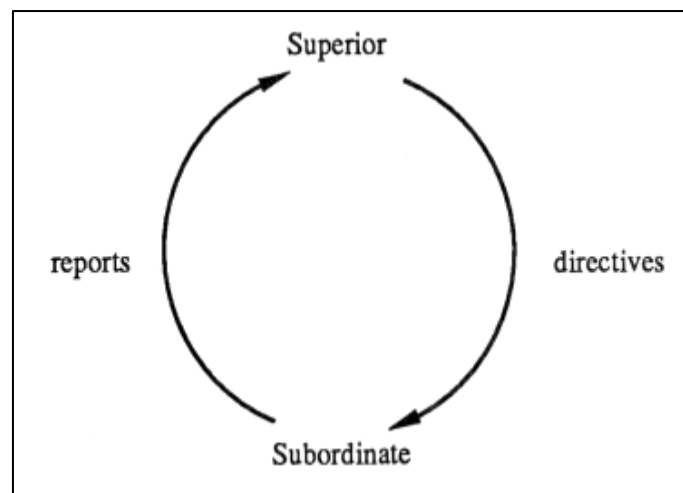
*Figure 9: Organization Chart of Bureaucratic Institution*



Source: Robert Birnbaum, *how colleges work* 1988, p108

The vertical lines linking the offices are referred to as “lines of authority”. They characterize the method how work is hypothetical to stream over the college; data and reports are supposed to stream up the chart to the President and over him to the board, and their orders are to stream downward. Organizational structures create a difference, and the organization chart of the College has significant information that might be unnoticed by some viewers. For instance, Organizations with few ranks between the highest and the lowest bureaus are considered to be flat, and those with more ranks are considered to be tall. Fewer ranks mean less misrepresentation in communications and because more individuals report to each manager, thus they cannot be as carefully monitored. Higher education organizations are naturally much flatter than business organizations of similar size<sup>163</sup>.

***Figure 10: Relationship of Superior and Subordinate at Bureaucratic Institution***



**Source: Robert Birnbaum, how colleges work 1988, p115**

A superior gives instruction to a subordinate, who obeys and submits a report to the superior. Base of the report, the superior then makes new orders. Each happening as it takes place offers feedback that touches its successor as the

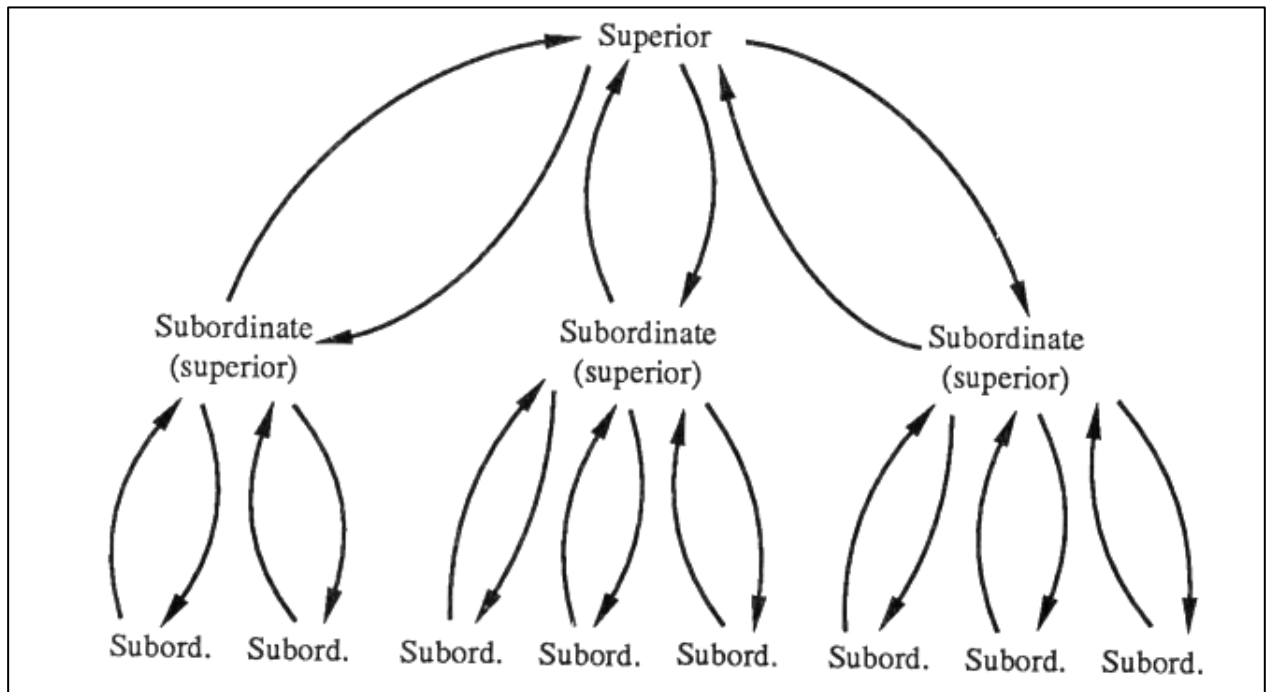
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<sup>163</sup> Robert Birnbaum, how colleges work, Jossey-Bass London, 1988, p108



superior learns the consequences of the order and the subordinate is briefed of the degree to which performance was satisfactory<sup>164</sup>.

**Figure 11: Linking Vertical Loops at Bureaucratic Institution**



**Source: Robert Birnbaum, how colleges work 1988, p116**

Because of the hierarchical structure of the university, superiors at one organizational rank are subordinates at the next lower rank, and so the organization can be portrayed as an endless connection of ranks. Superiors give orders to subordinates as problems are come across for the first time, but some problems are come across so regularly that they become part of standard operating procedures. Standard operating procedures are the systematic procedures directed by rules and regulations through which reports are arranged, forms are processed, budgets are established, and work gets done<sup>165</sup>. The nature of authority has important implications for the use of the bureaucratic model to universities, since professionals have narrow zones of acceptance. The better the

<sup>164</sup> Robert Birnbaum, how colleges work, Jossey-Bass London, 1988, p115

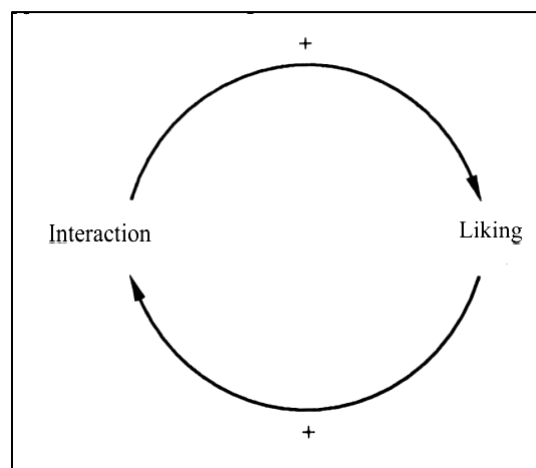
<sup>165</sup> Robert Birnbaum, how colleges work, Jossey-Bass London, 1988, p116

professional level of institutional staff members, the less effective bureaucratic model will be in synchronizing their behavior. Bureaucratic models are typically less powerful in dealing with faculty than in dealing with administrators.

### ***I.2.2.2. The Collegial Institution***

Birnbaum defines the collegial institution as representative of a community of administrators, faculty, and students in which all groups work together to generate an excellence educational situation. Infusing this community is an environment of shared admiration between scholars, great discourse, and discretion by agreement. Class differences grounded on academic discipline or organizational position are de-emphasized to permit interaction between associates as that between equals.

***Figure 12: The Relationship between Interaction and Liking***

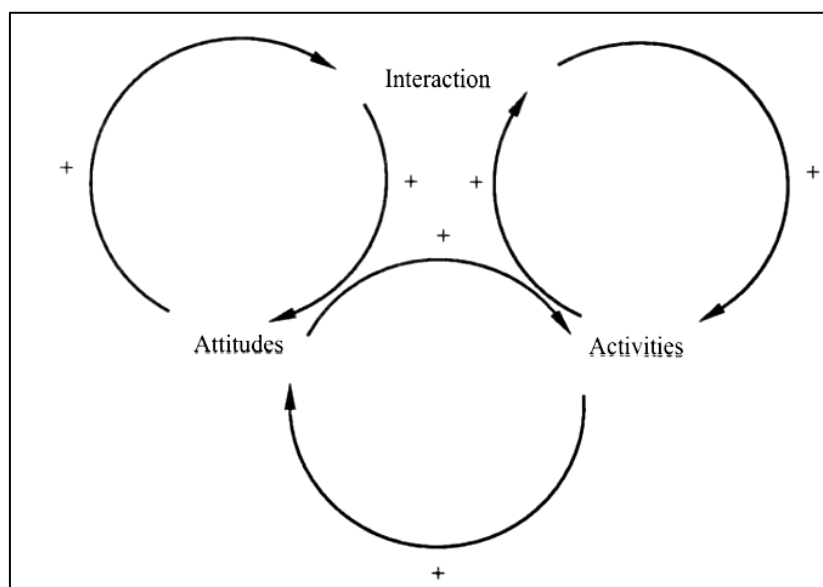


**Source: Robert Birnbaum, how colleges work 1988, p95**

Collegium adherents interact and inspire each other over a net of nonstop personal interactions built on social attraction, value consensus, and reciprocity. Backing up the continuation of "value consensus" is the transmittal of principles and philosophies to consecutive generations of the collegium. Birnbaum described the interaction of collegium adherents as a nonlinear procedure. A nonlinear procedure represents an "intricate system of interacting variables". It

is defined as when small perturbations in the primary circumstances can cause big and random modifications in the resultant outcome. The perturbations presented at the collegium are the responsibilities executed by individual members in the optimism of developing a cohesive working group<sup>166</sup>. Birnbaum defines the growth of nonlinear processes as "liking leads to interaction, and interaction leads to liking". But if the interaction is involuntary or under the auspices of authority, then escalations in interaction may not escalate the level of liking. Birnbaum states that the democratic environment of the collegium is encouraging to collaboration as individuals have a tendency to interact more often when status differences are nonexistent<sup>167</sup>.

***Figure 13: Relationships between Interaction, Attitudes, and Activities***



**Source: Robert Birnbaum, how colleges work 1988, p96**

The success of the collegial organization rests on the supportive behavior of its adherents. This behavior is demonstrated in a common system of values, discretion by consensus, and the aspiration to generate a quality educational environment. The tight coupling of this organization to its aim group of students

<sup>166</sup> Robert Birnbaum, how colleges work 1988, p95

<sup>167</sup> Ponton, Michael ; Birnbaum's Model of the Collegial Institution, 1996, p04

offers the conduit through which the desires of these students is transferred to the collegium thus providing the catalyst for change<sup>168</sup>.

#### ***1.2.2.2.1. Effective Leadership in Collegial Systems***

Individuals in leadership positions in collegial model are anticipated to inspire without pressure, to control without inducing alienation, and to direct without sanctions. They need to offer benefits that other members perceive as a reasonable exchange for yielding some amount of their independence. Leaders in collegial model must follow certain rules to retain their effectiveness.

##### ***1.2.2.2.1.1. Live Up to the Norms of the Group.***

Leaders demonstrate the values of the group to an extraordinary degree. They are capable to use uneven influence since they serve as role models. Meeting the requirements of group norms produces trust, and this trust can be lost if a leader is seen as determinedly acting in a way that oppose the values of the group.<sup>169</sup>

##### ***1.2.2.2.1.2. Do Not Give an Order That Will Not Be Obeyed***

Collegial leaders can give instructions, as long as the subordinates see them as fair and appropriate. To give an order that is questioned is to question the position of the leader.

##### ***1.2.2.2.1.3. Conform to Group Expectations of Leadership***

Groups anticipate their leaders to be aggressive and to initiate action in some situations. Group expects a leader to make certain decisions, or he will lose status, particularly in an emergency. “Any failure on the leader part to initiate interaction, or to take the initiative will make him that much less the leader”<sup>170</sup>.

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<sup>168</sup> Ponton, Michael ; Birnbaum's Model of the Collegial Institution, 1996, p06

<sup>169</sup> Robert Birnbaum, how colleges work, Jossey-Bass London, 1988, p102

<sup>170</sup> George C. Homans, The Human Group, Harcourt, Brace & World, New York, 1950,p428

#### ***1.2.2.2.1.4.Listen***

In a collegial model the leader can best demonstrating obvious harmony to group anticipations when there is a pure understanding of group norms and values. The leader may launch the interaction but then must listen and overcome the tendency of leaders to talk. The leader must recognize the importance of the group values that are spoken and receive them without taking a judgmental stand.

#### ***1.2.2.2.1.5.Use Established Channels of Communication***

In collegial model individuals assume that both formal and informal communications will follow certain customs, since they established understandings of what is appropriate and what is not. Opposing these customs may create confusion. Praising or blaming members in front of others may also create confusion, and change group interaction in unpredictable ways<sup>171</sup>.

#### ***1.2.2.2.1.6.Encourage Self-Control***

The leader in a collegium has the absolute accountability for controlling behavior but weak power to do so. The practices of conventional organizational sanctions are probably to be viewed as wrongful by the group; recourse to them will be viewed as a signal of weakness. Respectable leaders generate the environment in which the group will discipline itself by appealing to relevant group norms and values. Good leaders eliminate the burden inaccuracies by considering errors as valuable learning experiences that add to institutional growth.

#### ***1.2.2.2.1.7.Reduce Status Differences***

Open discussion is significant to the conservation of a collegial body whose members are regarded as equals. Since status differentials inhibit

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<sup>171</sup> Robert Birnbaum, how colleges work, Jossey-Bass London, 1988, p103

communication, people who wish to be influential in a collegium should attempt to reduce such differences where they exist<sup>172</sup>.

### ***1.2.2.3. The political institutions***

Universities have often many political characteristics. The political institutions are a mix of groups and subgroups. At times these groups are work groups such as administrative offices or academic departments, and sometimes they are established on social aspects such as sex, age, ethnicity, or ideology. Individuals and groups in political institutions interact by forming coalitions, compromising, bargaining and reaching agreements. The power in this model comes neither from rules nor from norms but from negotiations. To consider a university as a political model is to consider it as a super-coalition of sub-coalition with different goals and interests. Each of the sub-coalition is composed of interest groups that perceive at least some unity in their goals<sup>173</sup>.

Organizational politics includes obtaining, developing, and using power to acquire ideal results in situations in which groups disagree. Only when people must rely on others for their necessary resources, they become concerned about the behaviors of others. Without interdependence, there are no power and no politics. Some groups are stronger than others but no group is strong enough to dominate all other groups all the time. Disruptive clash is inhibited because power in universities tends to be issue specific. Different groups develop spheres of influence around issues of concern to them.

The impression that political processes in academic institutions are “dirty” reveal the misapprehension that if individuals would only act in the best interests of the university, they would reach agreement on what to do. It assumes that the best interests of the university are known, which is not accurate. Individuals that have different ideas on what are the best interests of the university and how it should

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<sup>172</sup> Robert Birnbaum, *how colleges work*, Jossey-Bass London, 1988, p104.

<sup>173</sup> Robert Birnbaum, *how colleges work*, Jossey-Bass London, 1988, p132.

be accomplished. In a democratic organization, political processes are appropriate means for resolving issues such who gets what, when, and how<sup>174</sup>.

Some individuals belong to more than one group, and they take part in many political processes, each of which includes different individuals. The presence of an enormous number of small cross-cutting divergences offers checks and balances counter to major disruptions, so paradoxically the agitation of the political processes can lead to system stability. Au contrary to bureaucratic or collegium models, in which individuals have a tendency to think alike and follow similar instructions. In both cases sharing homogeneity of view make it possible for small change to be amplified, unexpected situation to become volatile, and balance becomes precarious.

The political systems have some disadvantages, for example, some groups try to control information as a mean of power to accomplish their own objectives, and this may weaken the institution functions. Competing for resources means each group present the reasons why they deserve those resources more than other groups. Although this ensure that the best claims and arguments are given, it may lead to hardening in positions, and difficulties in compromises<sup>175</sup>.

### ***1.2.2.3.1. Effective Leadership in political Systems***

#### ***1.2.2.3.1.1. Coalition:***

If politics is the pursuit of power to achieve goals, then the pursuit of forming coalitions is to join with others to achieve a level of power that cannot be achieve acting alone. For example, coalitions are theoretically possible between any of the three parties “next figure”. Coalition rest on the strength of the three parties, and whether they have continuous or episodic relationships. In institutions even weak parties can swing the balance of power (the president is

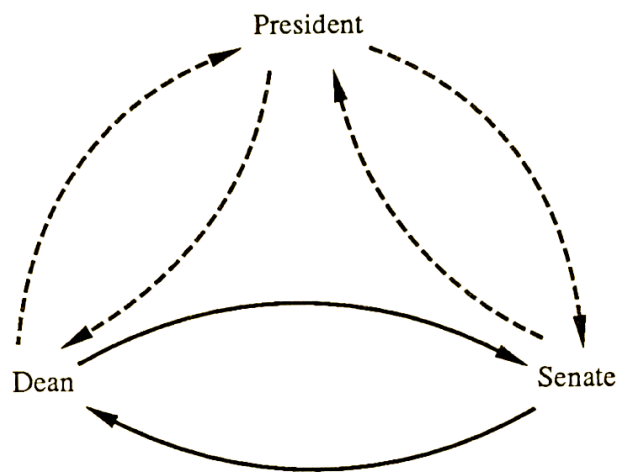
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<sup>174</sup> Robert Birnbaum, how colleges work, Jossey-Bass London, 1988, p135.

<sup>175</sup> Robert Birnbaum, how colleges work, Jossey-Bass London, 1988, p138.

more powerful than the dean and the senate but if they colluded, they become more powerful together). In decentralized institutions, coalitions forms to challenge the formal structure of authority. Au contrary to bureaucratic models where the centralize power is strong enough to overwhelm any coalition, and au contrary to collegium models where people believe that their interests will be protected in all decisions.

**Figure 14: Parties to coalition in a triad**



**Source: Robert Birnbaum, how colleges work 1988, page 141**

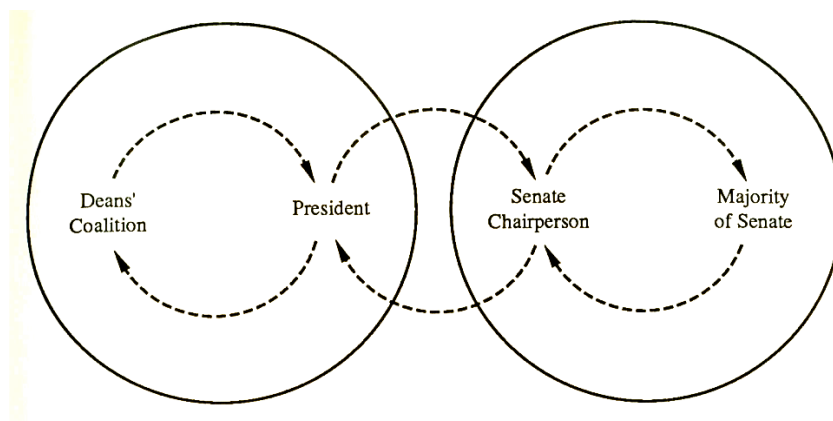
### ***1.2.2.3.1.2. Negotiations***

Before parties form coalitions they assess their own power and the power of potential partners, also they calculate the cost and benefits of potential coalitions. In the negotiation process the leaders of parties discuss the most advantageous outcomes and the compromises that can be made. In the other hand the leaders need to negotiate with individuals in their own party to clarify their desires and to adjust their aspirations. Often leaders find negotiations with individuals in their own group harder than negotiations with other groups. For example the president (in coalition with the deans) negotiate with the senate chairperson (in coalition with the senates) "next figure". Both sides claim their



positions as reasonable and justified and sees the other's positions as selfish and inconsistency with the institution benefits. If only the president and the senate chairperson were involved, they might find a common solution for the discussed issues. But as leaders of coalitions their ability to alter their positions is constrained. Yielding to the other side may be considered as betrayal by their own group.

**Figure 15: Representatives negotiating in political systems**



**Source: Robert Birnbaum, how colleges work 1988, p144**

### ***1.2.2.3.1.3. Clarifying group values***

The rational model emphasizes on group leaders to first reach agreements on values, then design programs consistent with these values. Sometimes it is easy to agree on values like “diversity” and “excellence”; but the meaning of these values in any specific situation cannot be assessed in the abstract. Sometimes only by inventing alternative programs then selecting between them, values can be clarified. It is through the selection process that relevant values are disclosed. The importance of “diversity” or “excellence” in specific situation can be determined only by designing policies with various outcomes.

### ***1.2.2.3.1.4. Reduce the cost of participation***

In a political model member of groups frequently will not act to achieve the interests of the group without special incentives since the cost of participations

by individual is high in terms of energy, time, and money. The reason for this also is that all members will get the benefits of the group even without participation. The rational self-interested individual will not participate when the odds of success are little, and the benefits obtain without participation. The role of the leaders of groups is to identify the problems that should deal with to reduce the cost. Also provide incentives to encourage participation.

#### ***1.2.2.4. The anarchical organizations***

In 1972, three young academics<sup>176</sup> published an article titled “A Garbage Can Model of Organizational Choice”. In the article they debated that the accurate answer, most of the time, is wrong. They founded their argument on three simple assumptions about organizations. The first is that in several organizations choices have a tendency to be unclear and accidentally learned over action and reaction. The second is what they call “unclear technology”, meaning that several organizations’ procedures are not comprehend by their members. Such organizations have a tendency to act through practical inventions of necessity. The third assumption is “fluid participation”, meaning that contributors in decisions differ in the extent of time and effort they dedicate to different fields.<sup>177</sup>

The model established to define this system where every individual does what they desire has been referred to as an organized anarchy. In it, educators choose if, when, and what to teach. Students choose if, when, and what to study. Legislators and donors choose if, when, and what to support. Neither control nor coordination are practiced. The choices of the system are a consequence created by the system but planned by no one and authoritatively controlled by no one<sup>178</sup>.

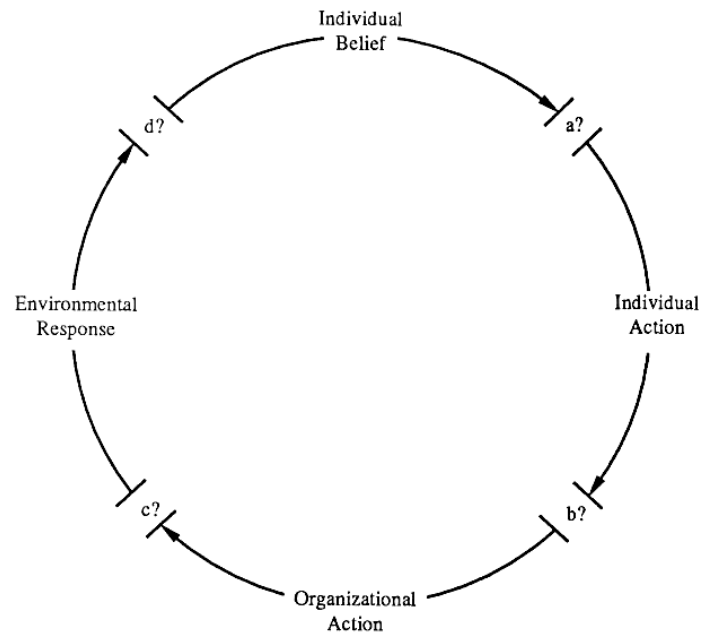
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<sup>176</sup> Michael Cohen (1945 –2013). James G March (1928 –2018). Johan P Olsen (born 1939)

<sup>177</sup> Johannes de berlaymont, A Garbage Can Model of Organizational Choice, <https://johannesdeberlaymont.com>

<sup>178</sup> Cohen, M. D., and March, J. G. Leadership and Ambiguity. New York: McGraw-Hill, 1974.p33-34

**Figure 16: The organization learning circle**



**Source: adapted from March and Olsen, 1979, p57.**

#### ***1.2.2.4.1.Characteristics of Anarchical Systems***

There are numerous simple tactical guidelines for use by leaders who desire to influence the course of decisions in anarchical models:

##### ***1.2.2.4.1.1.Spend Time***

You have an important claim on the system, if you dedicate time to the decision-making engagements in the organization. Spending your scarce resource “energy” head to an additional tolerant attention of the issues you sense are significant, as well as recognizing you as a main information source.

##### ***1.2.2.4.1.2.Persist***

Don't assume that if a specific suggestion has been overruled by your organization currently, it will be excluded in the future.

### ***1.2.2.4.1.3.Exchange Status for Substance***

Put your ego aside. If you can sacrifice at least some of the desires of pride in order to achieve some significant duty, you will also get credit for several things over which you have contributed little or have had little control<sup>179</sup>.

### ***1.2.2.4.1.4.Facilitate opposition participation***

Because in garbage can model most individuals do not participate frequently, and in an environment of rare information, individuals' prospects about achievements tend to drift away from reality. Involving individuals in decision-making will correct this situation.

### ***1.2.2.4.1.5.Overload the system***

In an organized anarchy, it is an inaccuracy to become completely devoted to anyone project since there are many ways in which the procedures will confuse the cleverest behavior with respect to a single proposal. Such organizations cannot handle huge numbers of projects.

### ***1.2.2.4.1.6.Provide garbage cans***

Because garbage can position are ones where any decision can offer the chance to raise any unsettled problems, it is useless to try to respond by trying to impose rules of relevance, which are usually somewhat arbitrary. As an alternative, offering "garbage can topics" to pull the consideration of those who hope to elevate the unnecessary subject and divert these issues away from the topic at hand<sup>180</sup>.

### ***1.2.2.4.1.7.Manage Unobtrusively***

Emphasis on touching many parts of the organization marginally rather than a few parts in a major way. The consequence of this kind of interference on any

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<sup>179</sup> Robert K. Bitting. Managing in an Organized Anarchy. <http://www.robertbitting.com>

<sup>180</sup> David H. Maister, Garbage Can Decision Making, 2005, p03

one part of the system is minor enough so that either no one truly notices, or no one finds it sensible to organize considerably in contradiction of the interference<sup>181</sup>.

#### ***1.2.2.4.1.8. Interpret history***

Since the majority of events in organized anarchies are vague and complex, they are subject to several interpretations. And who gets to interpret history gets to influence the future. If you try to write history too soon, resistance will rise, but after an appropriate period of time, the official history is established<sup>182</sup>.

#### ***1.2.2.4.2. Four Streams of Variables***

Garbage Can Model emphasizes on individual “participation”, how an information systems is used (solutions), what the technology is directed toward “problems”, and how much freedom an individual has to “choice opportunities”, making this model suitable for understanding and implementing strategy development under conditions of uncertainty.

##### ***1.2.2.4.2.1. Problems***

Problems are the anxieties of individuals inside the organization that oblige attention. The word “problems” is crucial for Garbage Can Model since most of organizational life emphasizes on problem-solving. A shared theme in problem-solving is transferring proprietorship of the problem, because the owner will be primarily accountable for taking action to solve it<sup>183</sup>.

##### ***1.2.2.4.2.2. Solutions***

Solutions are responses actively looking for questions. This notion opposites the outdated perception of the problem-solution relationship. As an alternative to seeing individuals in organizations as problem-solvers, it sees them as solution-

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<sup>181</sup> Robert K. Bitting, *Managing in an Organized Anarchy*. <http://www.robertbitting.com>

<sup>182</sup> David H. Maister, *Garbage Can Decision Making*, 2005, p04

<sup>183</sup> Harald Fardal, Jan Oddvar Sornes, *Strategic Decision-Making: A Garbage Can View*, 2008, p556

marketers. Garbage Can Model makes proposing solutions a key organizational action because most people aspire to progress.

#### ***1.2.2.4.2.3. Participants***

Garbage Can Model uses “participants” as a method of apprehending organizational membership since it emphasizes on the varying amount of investment that adherents have in their work. Cohen use of the term “participants” seems reasonably wise. Using of the term “agents” would have highlighted their organizational ties and their duty to represent the organization. Using of the term “players” would have highlighted the negotiated order and the politics of organizational life. Using of the term “social actors” would have highlighted their networks and the way they represent their information systems competence in a changing world. But the term “participants” emphasizes on their investment in the work environment and implies that an individual freely chooses whether to be involved in the various tasks at hand<sup>184</sup>.

#### ***1.2.2.4.2.4. Choice opportunities***

Select opportunities are events when an organization is anticipated to produce a decision. Individuals need to be appointed, promoted, or fired; money expended; and tasks allocated. These examples imply a hierarchy, or power structure, that allocates resources and legitimizes making choices.

#### ***1.2.3. Comparison of Bolman and Deal (1991) with Birnbaum (1988)***

There are a lot of similarities and cross paths between Bolman and Deal (1991) reframing theory and Birnbaum (1988) model of organizations theory. Bolman and Deal (1991) emphasis on leaders’ perspective of leadership while Birnbaum (1988) emphasis on the structure of the institution. Bolman and Deal (1991) reframing theory contain 4 type of leaders (leaders with: a structural frame, a human resource frame, a political frame, and a symbolic frame). Birnbaum

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<sup>184</sup> Harald Fardal, Jan Oddvar Sørnes, Strategic Decision-Making: A Garbage Can View, 2008, p556

(1988) model of organizations theory contain 4 type of institutions (bureaucratic, collegial, political, anarchical). Bureaucratic institutions are well suited with leaders with a structural frame. Collegial institutions are more effective when led by leaders with a human resource frame. Political institutions function smoothly when headed by leaders with a political frame. And anarchical institutions tend to prefer leaders with a symbolic frame. In the next 4 tables there are a comparison by emphasis on the characteristics of each type of institution with it suited type of frame.

**Table 4: Structural frame vs bureaucratic institution**

<b>Leaders with a structural frame</b>	<b>Leadership in the bureaucratic institution</b>
<ul style="list-style-type: none"> <li>• assess performance</li> <li>• solve conflicts</li> <li>• make decisions</li> <li>• distribute rewards and penalties</li> </ul>	<ul style="list-style-type: none"> <li>• Authority is well-defined by the subordinate</li> <li>• Leadership procedures need to be perceived by others to be legitimate</li> <li>• the most rational individuals get promotion</li> <li>• Consistent with acceptable rules and norms</li> <li>• Effectiveness is reliant on the capacity to delegate</li> <li>• Decision-making is based on rational analysis</li> </ul>

**Source: my work**

***Table 5: Human resource frame vs collegial institution***

<b>Leaders with a human resource frame</b>	<b>Leadership in a collegial institution</b>
<ul style="list-style-type: none"> <li>• attempt to tie organizational needs with the individual needs of the staffs</li> <li>• inspire staffs to reach their own objectives</li> <li>• inspire participative decision-making</li> </ul>	<p>based on:</p> <ul style="list-style-type: none"> <li>• making decisions that are consider correct by the group</li> <li>• listen to the collegial group</li> <li>• give only orders that will be followed</li> <li>• encourage self-discipline</li> <li>• reduce status differences</li> </ul>

**Source: my work**

***Table 6: Political frame vs political institution***

<b>Leaders with a political frame</b>	<b>Leadership in a political institution</b>
<ul style="list-style-type: none"> <li>• Leaders negotiate, bargain, compromise, and build coalitions.</li> <li>• Consider that individual and group clash and disputes over resources</li> </ul>	<p>Leaders try to:</p> <ul style="list-style-type: none"> <li>• apprehend the organization as it really is</li> <li>• clarify group values by presenting reasonable solutions</li> <li>• Reduce the cost of participation.</li> </ul>

**Source: my work**



**Table 7: Symbolic frame vs anarchical institution**

<b>Leaders with a symbolic frame</b>	<b>Leaders in an anarchical institution:</b>
key tasks are building and keeping of systems of shared meanings, cultures, and shared languages	meaning makers and catalysts

**Source: my work**

### ***1.2.4. The evolution of the Algerian higher education***

On July 5, 1962 Algeria regained its independence after a long colonial period of 132 years, at the cost of losing a million and a half of its citizens, including many young high school and university students. Following the victory, the situation in Algeria was catastrophic in all areas and presented all the economic and social characteristics of a country bruised, emerging from a long colonial period. The education sector was as catastrophic as any other sector: 85% of the Algerian people were illiterate, an insignificant enrollment rate, pitiful infrastructure, unsatisfactory teaching staff, programs and curricula inadequate to the country's history, geography and culture.

#### ***1.2.4.1. The evolution of regulations and reforms***

The evolution of the Algerian higher education has undergone five essential stages since independence:

##### ***1.2.4.1.1. The first stage (1962 – 1969)***

In this period not that much had been done for higher education because of the catastrophic political and economic situation and the challenges facing a country emerging from a long war, however the government tried to lay the first

foundation of the national university. A few infrastructures were built for higher educations.

#### ***1.2.4.1.2. The second stage (1970 – 1979)***

In it the Algerian University truly appears with the creation of the Ministry of Higher Education and Scientific Research in 1970<sup>185</sup>, and the launch of the important reform of higher education in 1971 that focused on four main areas: a renovation of pedagogical programs reflected in the triptych (diversification, specialization, professionalization), a new educational organization reflected in the change from annual to semester teaching, intensifying the growth of higher education aims to ensure that the maximum number of young people reach the upper levels of the education and training system, and a total reorganization of university structures consists in the transition from the traditional scheme of faculties to university institutes with each of them a specialization in a specific scientific field. This method of organization is largely inspired by the model of Anglo-Saxon universities in which applied sciences are developed around a solid foundation made up of basic sciences.

#### ***1.2.4.1.3. The third stage (1980 – 1999)***

In this period several consolidation and rationalization measures were implemented to ensure a better match between higher education and the needs of the national economy. The first measure concerns the explicit integration of higher education in the overall national planning process. For the first time, precise quantitative objectives for the training of executives by branches and sectors of activity are assigned to higher education. The second measure relates to the reorganization and multiplication of common cores. The aim is to improve productivity by implementing specific programs. Third is the introduction of the first measures of entry orientation to University. Quite shy at its beginning, a bachelor guidance system supports the reorganization of common core.

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<sup>185</sup> A government decreed by the Council of the Revolution - from July 21, 1970 to April 23, 1977.

#### ***1.2.4.1.4. The fourth stage (1999 - 2005)***

In this period a new law and regulations were implemented. This law<sup>186</sup> considered as a momentous moment in the development of the higher education system. It summarizes the entire regulatory framework produced since independence and gives it an overall coherence. It codifies the organizational set-up necessary for the redeployment of the entire system. It thus opens significant prospects for development in the demographic and infrastructural plans and sets the objectives to be achieved. It specifies the status of teachers and teaching for all levels of higher education (graduation, post-graduation).

#### ***1.2.4.1.5. The last stage (2005 to the present days)***

This period saw the implementation of a new architecture in the higher education system known as LMD (license-master-Doctorate) system. This new architecture is organized in large domains covering several disciplines that are coherent in terms of professional opportunities and scientific and technical skills. Within each domain, typical courses that can lead to specialties or special options are offered. A typical course is a set of teaching units articulated according to a progression logic with a view to acquiring identified skills. These courses are built by the formation teams and can integrate transdisciplinary, multidisciplinary and professionalizing approaches. They allow the gradual orientation of the student according to his personal or professional project and considering the diversity of the public and their needs. They must include the acquisition of transversal skills, including the command of at least one foreign language, computer tools and documentary research tools.

### ***1.2.4.2. The evolution of higher education infrastructures***

#### ***1.2.4.2.1. Before 1962***

During the colonial period of 130 years, the French government didn't invest in higher education. Only few schools were built and uniquely for French

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<sup>186</sup> Law No. 99-05 of April 4, 1999

residents. In 1859 the School of Medicine and Pharmacy was the first to be built. 20 years later in 1879 the Faculty of Sciences and the faculty of Letters and Law were added. In 1909, these faculties were combined with other institutes, to give birth to the University of Algiers<sup>187</sup>.

#### ***1.2.4.2.2. From (1962 to 1980)***

In this long period of 18 years only three major universities were built in three prestigious cities. The University of Sciences and Technology Houari-Boumediene (USTHB, Bab Ezzouar, Algiers) in the capital of Algeria, the University of the Mentouri Brothers of Constantine in the east of Algeria and Mohamed-Boudiaf University of Science and Technology in Oran (USTO) in the oust.

#### ***1.2.4.2.3. From (1980 to 1998)***

In the next eighteen years Algeria invested heavily in higher education infrastructures, this process has been consolidated by the addition of eighteen new universities and university centers in different wilayas<sup>188</sup>.

#### ***1.2.4.2.4. From (1998 to 2012)***

In this period using the massive petrol incomes Algeria managed to covered all it territories with a network of 97 higher education establishments contain 47 universities, 10 university centers, 4 university annexes, 19 national higher schools, 5 higher normal schools, 10 preparatory schools and 2 integrated preparatory classes)<sup>189</sup>

#### ***1.2.4.2.5. After 2012***

Today the Algerian higher education network comprises one hundred and six higher education institutions covering the entire national territory. This network consists of fifty universities, thirteen university centers, twenty national schools

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<sup>187</sup> Ministry of Higher Education and Scientific Research Algeria, 1962-2012 report

<sup>188</sup> SALAH EDDINE CHERRAD ET INES KASSAH LAOUAR Infrastructures universitaires et territoires urbains Cahiers du CREAD n°8586, 2008, pages 155172.

<sup>189</sup> <https://www.liberte-algerie.com/dossier-economique/luniversite-vit-une-crise-multidimensionnelle-endemique-195596>

and ten higher schools, eleven higher teacher training colleges and two annexes<sup>190</sup>.

#### ***1.2.4.2.6. Private higher education***

Starting from 2014 Algeria allowed for the first time the creation of Private higher education institutions, currently Algeria has eleven (11) private higher education establishments.

Also for the first time mixed institutions with foreigners were accepted. The Algerian Business School (L'École de Commerce algérienne) is a school created in 2004 by Algerian-French cooperation. A French diploma from the University of Lille is issued. This type of diploma does not require a recognition procedure as is the case for other foreign diplomas.

The Higher Arab Institute of Translation (HAIT) is an Algerian university organization of the League of Arab States. Inaugurated in 2005, it has since endeavored, in concert with international scientific and cultural institutions, with leading universities and research centers, to promote and develop translation in the Arab world<sup>191</sup>.

#### ***1.2.4.3. Statistic glance at the evolution of Algerian higher education***

##### ***1.2.4.3.1. Evolution of the number of students by different science categories***

***Table 8: Evolution of the number of students by different science categories***

	<b>1962</b>	<b>1970</b>	<b>1980</b>	<b>1990</b>	<b>2000</b>	<b>2010</b>	<b>2016</b>
<b>technology sciences</b>	739	2959	16562	85643	117648	200036	262047
<b>nature and earth sciences</b>	.	147	9304	12714	44510	82111	107224
<b>medical sciences</b>	762	3806	9205	28407	30410	53847	61025

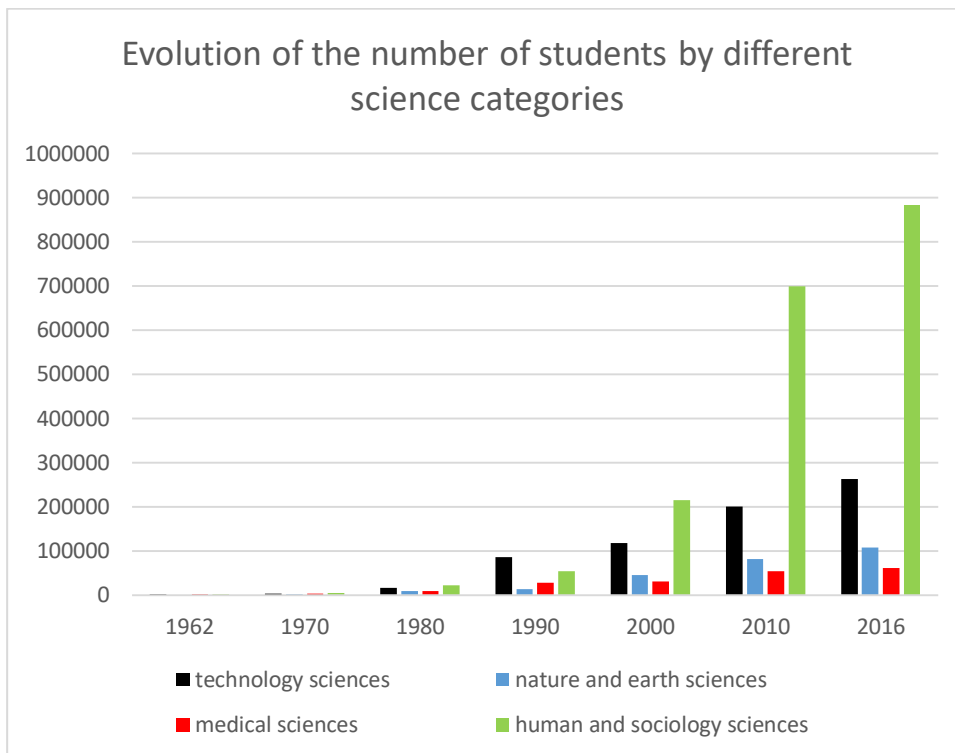
<sup>190</sup> <https://www.mesrs.dz/universites>

<sup>191</sup> Mediterranean Network of National Information Centres on the Recognition of Qualifications raport 2019

<b>human and sociology sciences</b>	1224	5331	22374	54586	215427	698319	883244
<b>Total</b>	2725	12243	57445	181350	407995	1034313	1 313 540

Source: MESRS (2012) and DGRSDT (2018) reports

**Figure 17: Evolution of the number of students by different science categories**



**Source: table 8**

The evolution of the number of Algerian students increased from 2725 in 1962 to more than a million fifty years later. In 1990 30% of students were enrolled in human and sociology sciences and the other 70% were enrolled in technology, nature or medical sciences. These ratios kept inverting for the next 30 years till reach 68% for in human and sociology sciences and 32% for other fields. This unbalanced distribution of students in different fields of science is a big issue in Algerian higher education<sup>192</sup>.

<sup>192</sup> Ministry of Higher Education and Scientific Research Algeria, 1962-2012 report

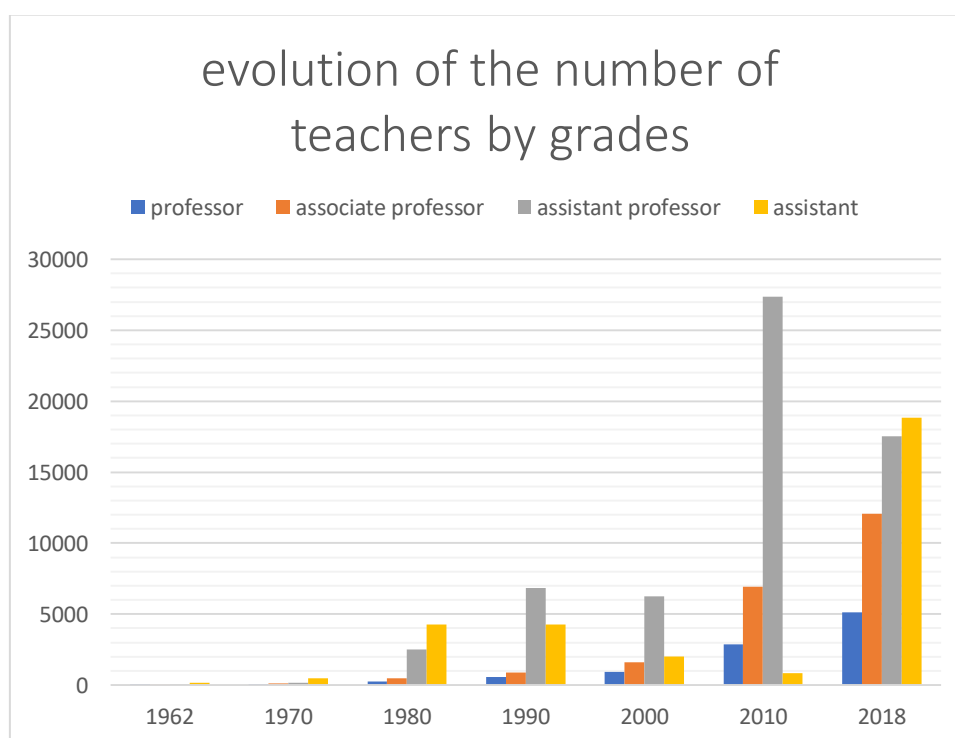
### *I.2.4.3.2. Evolution of the number of teachers by grades*

**Table 9: Evolution of the number of teachers by grades**

	<b>1962</b>	<b>1970</b>	<b>1980</b>	<b>1990</b>	<b>2000</b>	<b>2010</b>	<b>2018</b>
<b>Professor</b>	66	80	257	573	950	2874	5107
<b>associate professor</b>	13	112	463	905	1612	6914	12074
<b>assistant professor</b>	74	167	2494	6839	6275	27361	17545
<b>Assistant</b>	145	483	4283	4261	1991	839	18861
<b>Total</b>	298	842	7497	12578	10828	37988	53587

**Source: MESRS (2012) and DGRSDT (2018) reports**

**Figure 18: Evolution of the number of teachers by grades**



**Source: table 9**

The number of teachers has steadily increased during these five decades. It rose from 298 permanent teachers in 1962 to 17460 in 2000. This number was multiplied by 2.3, exceeding 37988 teachers in 2010. During these fifty years the number of permanent teachers was multiplied by 180 between 1962 and 2018. It is important to underline a strong increase in the rate of feminization of the teaching staff that reaches 40%<sup>193</sup>.

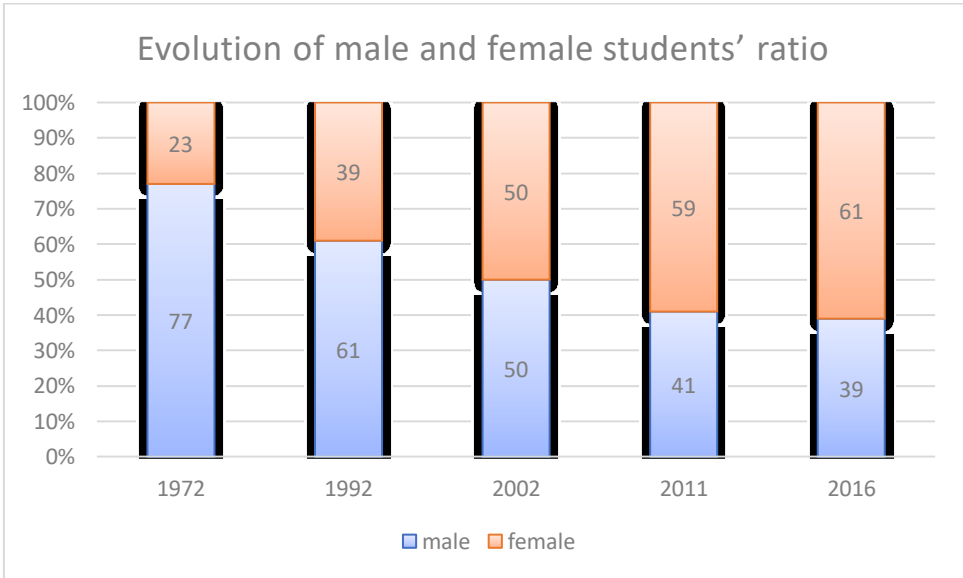
***1.2.4.3.3. Evolution of male and female students’ ratio***

***Table 10: Evolution of male and female students’ ratio***

	1972	1992	2002	2011	2016
<b>Male</b>	77	61	50	41	39
<b>Female</b>	23	39	50	59	61

**Source: MESRS (2012) and DGRSDT (2018) reports**

***Figure 19: Evolution of male and female students’ ratio***



**Source: table 10**

The growth rate of feminization is fast, increasing from 23% in 1972 to 50% in 2000. From that date, the female component continued to increase steadily,

<sup>193</sup> the European Union, Overview of the Higher Education System, report 2018



reaching 61% in 2016. It is in Arts and Social Sciences that is the highest with 69%, and it is in technology it is relatively low with 31%<sup>194</sup>.

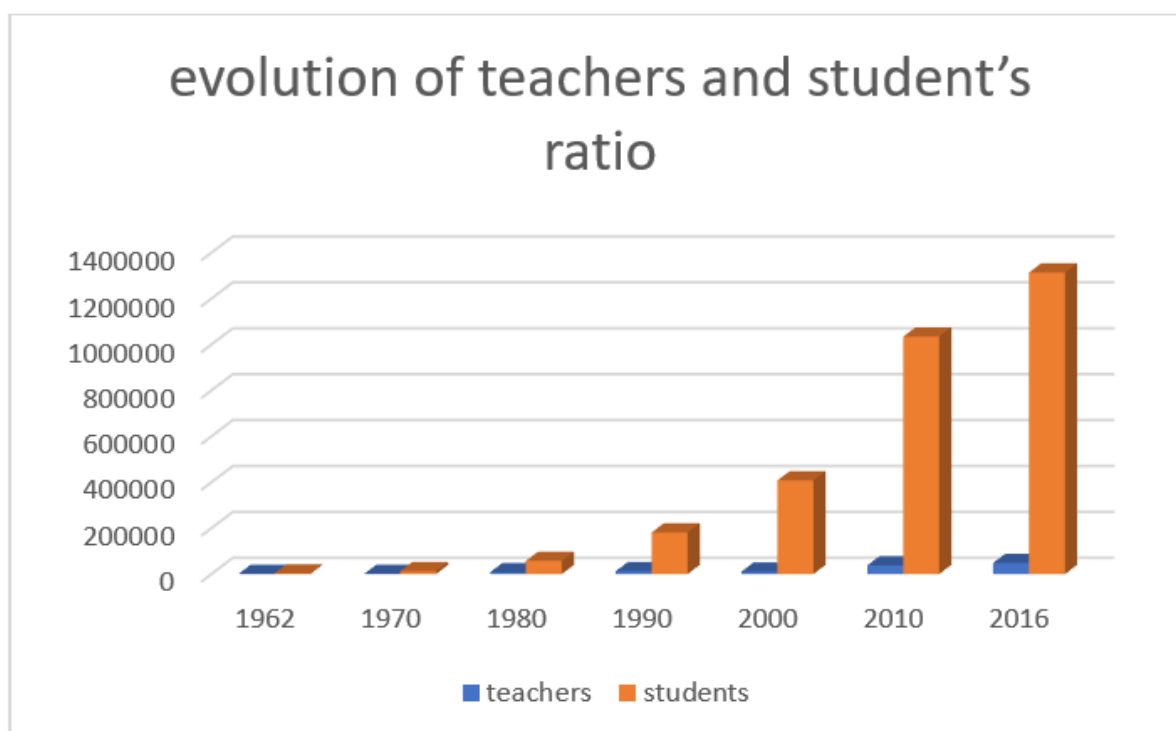
#### ***1.2.4.3.4. Evolution of teachers and student's ratio***

***Table 11: Evolution of teachers and student's ratio***

	<b>1962</b>	<b>1970</b>	<b>1980</b>	<b>1990</b>	<b>2000</b>	<b>2010</b>	<b>2016</b>
<b>Teachers</b>	298	842	7497	12578	10828	37988	48341
<b>Students</b>	2725	12243	57445	181350	407995	1034313	1 313 540
<b>Ratio</b>	9	15	8	12	23	27	27

**Source: MESRS (2012) and DGRSDT (2018) reports**

***Figure 20: Evolution of teachers and student's ratio***



**Source: table 11**

In 1990 there were one teacher for every 8 students. This ratio kept shrinking till reach one teacher for every 27 students in 2010. These ratios demonstration

<sup>194</sup> Ministry of Higher Education and Scientific Research Algeria, 1962-2012 report

that the evolution of the number of teachers didn't increased in the same speed as the number of students. This indicate that Algerian universities needs more teachers to keep up with the massive number of new students every year<sup>195</sup>.

#### ***I.2.4.4. The evolution of Algerian higher education finances***

***Table 12: evolution of Algerian higher education finances***

<b>Years</b>	<b>total Budget (million dinar)</b>	<b>Higher education budget (million dinar)</b>	<b>higher education /total budget (percent)</b>	<b>higher education/GDP (percent)</b>
<b>1980</b>	2771	147	5,3	0,09
<b>1985</b>	6418	294	4,58	0,1
<b>1990</b>	8880	564	6,35	0,1
<b>1995</b>	47364	1794	3,79	0,09
<b>2000</b>	85619	3771	4,4	0,09
<b>2005</b>	124513	7876	6,33	0,1
<b>2010</b>	265907	17348	6,52	0,14
<b>2015</b>	497227	30033	6,04	0,18
<b>2018</b>	458446	31333	6,83	0,15

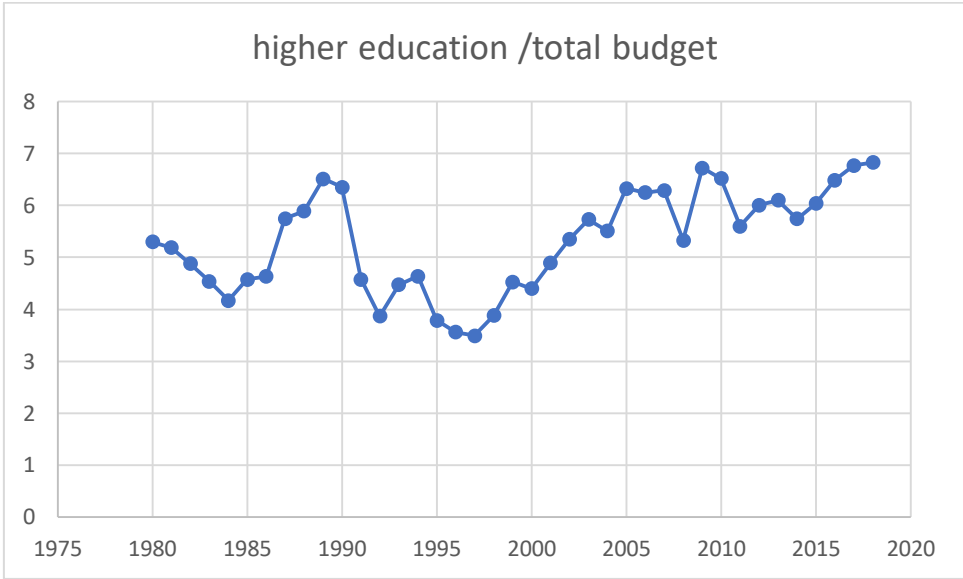
**Source: World Bank reports, ONS reports, finance laws**

Under the authority of the Minister of Scientific Research, the Directorate General of Scientific Research and Technological Development (DGRSDT) is responsible for implementing all provisions of the law regarding programming, evaluation, institutional organization, human resource development, university research, technology development and engineering, scientific and technical information, scientific cooperation, valorization of research results, infrastructures and big equipment, and funding the five-year programs. The (DGRSDT) executes the decisions and recommendations of the National

<sup>195</sup> <sup>195</sup> the European Union, Overview of the Higher Education System, report 2018

Council of Scientific and Technical Research and carries out the coordination of the activities of scientific and technological research collectively with other sectors, through Intersectoral Commissions and Thematic Research Agencies and in relation with Standing Sectoral Committees of the sectors concerned by these activities<sup>196</sup>.

**Figure 21: higher education /total budget ratio**



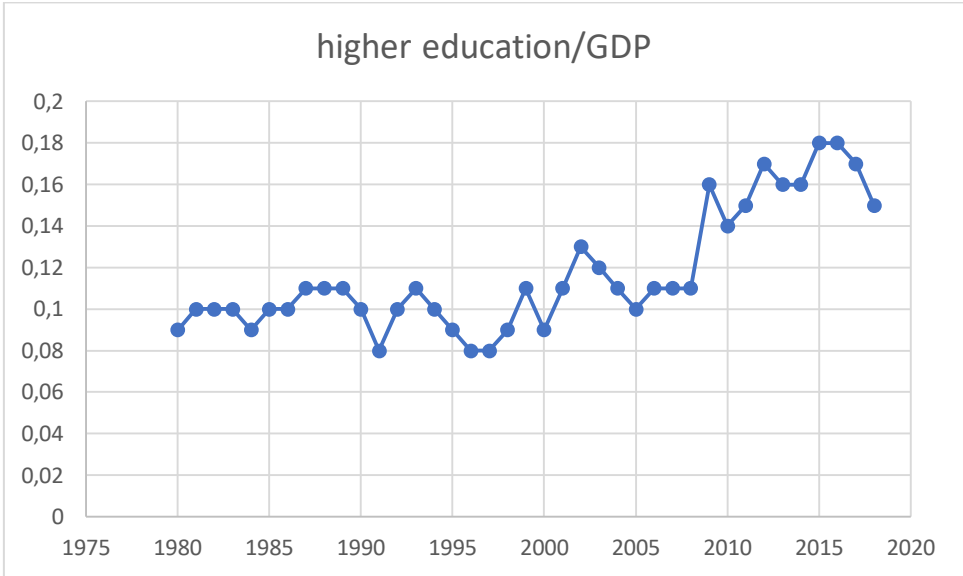
**Source: table 11**

In Algeria the ration of investing in higher education and the total budget is correlated to petrol incomes. In the mid-eighties when the petrol prices increased, the ration of investing in higher education and the total budget increased from 4 to almost 7 percent. But when the petrol prices dropped in early nighties the ration of investing in higher education and the total budget sharply decreased from almost 7 percent to less than 4 percent. The ration of investing in higher education and the total budget increased again in the new century because the petrol prices reach a never seen world records. Investing in higher education wasn't never a real strategic goal for Algerian governments

<sup>196</sup> <http://www.dgrsdt.dz/v1/index.php>

because Increasing or decreasing higher education expenses is related to petrol incomes.

**Figure 22: higher education/GDP ratio**



**Source: table 22**

Education is essential for economic growth, whether short-term or long-term. No country can achieve sustainable economic development without making sustainable investment in human resources. Education increases the productivity of individuals and contributes to raising their level of creativity, which in turn promotes and encourages entrepreneurship and technological progress. Alto there are an increase in Algerian higher education and GDP ratio but never reach 0.2 percent, which still far away from developed ratios.

**Conclusion**

Universities and faculties are academic institutions that share a lot of similarities with other types of institutions like economic or political institutions. The structure of an academic institution and the regulations that are used to manage it reflect the dominate type of this academic institution. Knowing the specific type of an academic institution make it easier to determine with type of

managers are most suited to succeed managing it. Some leaders and managers can succeed leading all types of academic institutions because they have more than one lens used to observe the world around them. They know which lens is better used in each situation, and each lens that is more successful dealing with certain types of people. Universities in the advanced world works in a very competitive environment. Each day they battle for finance and human resources. In a competitive environment the more resources you obtain, and the better you used those resources the more likely to succeed. Obtaining and using resources is key task for the leaders and managers. The better leaders the university have the more likely to lead the competition.

# **THE EMPIRICAL STUDY**

## ***II. Empirical study***

### ***II.1. Methodology***

#### **Introduction**

This empirical study is based on reframing theory by Bolman and Deal (1991). According to them effective leaders should approach organizational issues from four perspectives called “frames”. They classify these frames into four categories: structural frame, human resource frame, political frame, and symbolic frame. Bolman and Deal (1991) argued that leader’s effectiveness is higher if they can utilize and access all the four frames. Also, if they can realize which frame is better used depending on people involved, and different situations.

Frames serve multiple functions. They are filters for sorting essence from trivia, maps that aid navigation, and tools for solving problems and getting things done. The structural approach focuses on the design of subunits and units, policies and goals, roles and rules, and the architecture of organization in general. The human resource lens emphasizes on considering individuals foibles and strengths, fears and desires, emotions and reasons. The political lens perceives organizations as struggles for power and benefit, and competitive arenas of rare resources and opposing interests. Finally, the symbolic lens emphasizes on subjects of faith. It puts ritual, ceremony, story, play, and culture at the heart of organizational life.

all frames are coherent and powerful. Jointly, by looking at the same thing from multiple lenses or points of view, it makes it possible to reframe. When the world seems hopelessly confusing and nothing is working, reframing is a powerful tool for “gaining clarity, regaining balance, generating new options, and finding strategies that make a difference”<sup>197</sup>.

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<sup>197</sup> Bolman, L. G., & Deal, T. E. (2008). *Reframing Organizations Artistry, Choice, and Leadership*. Jossey-Bass. p21p22.

### ***II.1.1.Instrument***

There has been a considerable amount of research on reframing theory by Bolman and Deal (1991) since the 1990s using The Leadership Orientations instrument. The Leadership Orientations comes in parallel versions: Self (for people to rate themselves) and others (for ratings from colleagues). Both versions have four sections.

In the first section respondents rate themselves or their colleagues on leadership behaviors according to a five-point, Likert<sup>198</sup>-type scale: 5 = always, 4 = often, 3 = sometimes, 2 = occasionally, and 1 = never. There are 32 questions on this part of the survey (eight questions associated with each of the four frames). The structural frame reflected in items (1, 5, 9, 13, 17, 21, 25, and 29). The human resource frame reflected in items (2, 6, 10, 14, 18, 22, 26, and 30). The political frame reflected in items (3, 7, 11, 15, 19, 23, 27, and 31). Finally, the symbolic frame reflected in items (4, 8, 12, 16, 20, 24, 28, and 32).

Section two of the Leadership Orientations Instruments contained six forced-choice questions. A scale of 1 to 4 was used with ‘1’ indicating the phrase least demonstrative of their leadership styles and ‘4’ indicating the phrase that best defined the leadership style of the respondents. each frame was represented in the four phases attached to each question.

In the third section of the survey, respondents were demanded to rate their overall effectiveness in two categories (one about leadership and one about management) using the five-point Likert-type scale (“1” a bottom 20% rating, “3” a middle 20% rating, and “5” being a top 20% rating).

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<sup>198</sup> Rensis Likert was an American social psychologist who is primarily known for developing the 5-point Likert scale, a psychometric scale that allows people to respond to questions of interest, in order to measure people's attitudes. Likert-type scale commonly involved in research that employs questionnaires. It is the most widely used approach to scaling responses in survey research.



Section four of the survey is about background information from respondents like gender, years in current job, and total years of experience as a manager. (appendix 1).

### ***II.1.2.Design of the Study***

this study was design based on a cross-sectional and quantitative examination questionnaire to determine leadership orientations of the leaders and managers from some Algerian higher education institutions (university of Tlemcen, university center of Maghnia, The School of Management-tlemcen-, university center of Ain Temouchent, , university of Mascara, university center of Relizane , university of Sidi Bel Abbes, university of Mostaganem, university center ElBayadh , university of Adrar, and university of oran1 and 2).

Quantitative research is a way to test objective theories by examining the relationship among variables. Quantitative researchers try to identify cause-and-effect relationships that enable them to make probabilistic predictions and generalizations. because of the descriptive nature of the data collected through this survey, this study used a non-experimental method, which does not require an existence of a control group. And because this study did not depend on collecting data over a period, the cross-sectional design was chosen to collect data from the chosen population sample at one point in time.

The study employed quantitative research methodology and SPSS software (Statistical Package for the Social Sciences) to analyze the data collected. As the completed surveys were received, the data will be entered into the software for organization and analysis. Descriptive statistics, including frequency of responses for each variable, the means and standard deviations will be used in the exploratory analyses. The SPSS statistical software will be used to compute sums, means, and ratios with standard errors.

### ***II.1.3. Reliability and validity***

Extensive research indicates the Bolman and Deal Leadership Orientation Questionnaires for Self-meet acceptable standards for reliability and validity.

Structural Frame (items 1, 5, 9, 13, 17, 21, 25, 29 Section One) have a Spearman Brown Coefficient<sup>199</sup> of 0.933 and a coefficient alpha<sup>200</sup> for all eight items of 0.920. The coefficient alpha for the odd items is 0.856 while the coefficient alpha for the even items is 0.834. The overall reliability for the Structural Frame items, the mean alpha is 0.9085 (N = 1,309 cases).

Human Resource Frame (items 2, 6, 10, 14, 18, 22, 26, 30 Section One) have a Spearman Brown Coefficient of 0.929 and a coefficient alpha for all items of 0.931, The coefficient alpha for the odd items is 0.902, and the coefficient alpha for the even items is 0.843. Item reliability for the human resource questions reflect a mean alpha of 0.920 (N = 1,331 cases).

Political Frame (items 3, 7, 11, 15, 19, 23, 27, 31 Section One) have a Spearman Brown Coefficient of 0.911 and a coefficient alpha for all items of 0.913, 0.839 for the odd items, and 0.842 for the even ones, and the mean alpha is .09015 (N = 1,268 cases).

Finally, Symbolic Frame (items 4, 8, 12, 16, 20, 28, 32 Section One) have a Spearman Brown Coefficient of 0.937 and a coefficient alpha for all items of 0.931. The coefficient alpha for the odd items is 0.846, and 0.887 for the even items. For item reliability, the mean alpha is .09195 (N = 1,315 cases).

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<sup>199</sup> The Spearman–Brown prediction formula, also known as the Spearman–Brown prophecy formula, is a formula relating psychometric reliability to test length and used by psychometricians to predict the reliability of a test after changing the test length. The method was published independently by Spearman (1910) and Brown (1910)

<sup>200</sup> Cronbach's alpha is a convenient test used to estimate the reliability, or internal consistency, It was first named alpha by Lee Cronbach in 1951, as he had intended to continue with further coefficients. The measure can be viewed as an extension of the Kuder–Richardson Formula 20 (KR-20),

Structural Frame (Section Two), the Spearman Brown Coefficient for the six items is 0.783 while the coefficient alpha for all the items is 0.841, the odd items is 0.743, and the even items is 0.782.

Human Resource Frame (Section Two), the Spearman Brown Coefficient for the six items is 0.861 and the coefficient alpha for all the items is 0.843, the odd items is 0.626, and the even items is 0.792.

Political Frame (Section Two), the Spearman Brown Coefficient for the six Section Two items is 0.829 and the coefficient alpha for all the items is 0.799, the odd items is 0.680, and the even items is 0.602. Finally, for the Symbolic Frame (Section Two), the Spearman Brown Coefficient for the six items is 0.904 and the coefficient alpha for all the items is 0.842, the odd items is 0.701, and the even items is 0.682. For Section Two, N = 1,229 cases. (Appendix 2).

In this study the mean of Cronbach's alpha for the self-rating part of the study is 0,886 for all frames. And it was between 0,694(Political Frame) and 0,847(Human Resource Frame) which consider very reliable statically.

***Table 13: mean of Cronbach's alpha (self-rating)***

	<b>Cronbach's Alpha</b>	<b>N of Items</b>
<b>All frames</b>	0,886	32
<b>Human Resource Frame</b>	0,847	8
<b>Symbolic Frame</b>	0,749	8
<b>Structural Frame</b>	0,747	8
<b>Political Frame</b>	0,694	8

**The source: SPSS calculations using data from the surveys**

For others rating part the mean of Cronbach's alpha is 0,896 for all frames. And it was between 0,671(Political Frame) and 0,831(structural Frame) which consider very reliable statically.

*Table 14: mean of Cronbach's alpha (others-rating)*

	<b>Cronbach's Alpha</b>	<b>N of Items</b>
<b>All frames</b>	0,896	32
<b>Structural Frame</b>	0,831	8
<b>Human Resource Frame</b>	0,822	8
<b>Symbolic Frame</b>	0,751	8
<b>Political Frame</b>	0,671	8

**The source: SPSS calculations using data from the surveys**

#### ***II.1.4.Pilot test***

The term 'pilot studies' refers to mini versions of a full-scale study. It is very useful to test research protocols, data collection instruments, sample recruitment strategies, and other research techniques in preparation for a larger study. Pilot studies are a crucial element of a good study design and it is one of the important stages in a research project and is conducted to identify potential problem areas and deficiencies in the research instruments such as a questionnaire or interview schedule. A good pilot study increases the likelihood of the success of the full study.

In this study no pilot test was used because the leadership orientations instrument was tested extensively in the last three decades by many researchers world wide. However, during the study, I made some changes to the instrument. First change was to make the study anonymous because most participants refused to include their names in the questionnaire. The Second change was to put the questions in tables to make easier to answer because some participants faced troubles answering the questionnaire (Appendix 3).

#### ***II.1.5.Data Collection***

Under the permission of professor lee bolman (Appendix 4) I revised and translated the leadership orientations instrument (self and others) into French

(Appendix 5) and Arabic (Appendix 6) for leaders and managers who don't understand French or English. with the help of more twenty persons (friends ,colleagues and family members) one hundred thirty-nine surveys (112 printed copy and 27 electronic copy of the survey) were distributed in twelve higher education institutions (university of Tlemcen, university center of Maghnia, The School of Management-tlemcen-, university center of Ain Temouchent, university of Mascara, university center of Relizane , university of Sidi Bel Abbes, university of Mostaganem, university center ElBayadh , university of Adrar, and university of oran1 and 2).

From the one hundred thirty-nine surveys that were distributed one hundred fourteen were collected (82%). And from the one hundred fourteen collected seven surveys were eliminated for several reasons:

One survey was eliminated because I strongly believe that the leader didn't answer the questions from the survey by himself, when I visited his office for the first time he wasn't there, so I asked his secretary to deliver the survey to him. I visited him after four days, he was there but his secretary was not. I asked him if he finished answering the survey and he responded (what survey? I don't know anything about this survey). I explained to him that I visited him four days ago and I asked his secretary to give him the survey, so he called her and during the phone call conversation I heard him asking her if she finished answering the questions from the survey. After he hanged up the phone call, he told me to come back after two days to retrieve the questionnaire, therefore I strongly believe that he didn't answer the questions from the survey by himself.

In one of the academic institutions that I visited three managers basically share the same office. I gave one survey to one of them and I asked him to deliver the other two surveys to his colleagues because they were not present at that time. I came back after one week to recover the surveys; the same manager was there, and his two colleagues were absent also. After I left the office I checked the

surveys and I was surprised that the answers were identical, and I believe that same hand writing and the same pen was used, so I concluded that the same manager had answer the three surveys by himself, therefore I excluded two and I kept one.

I excluded another collected survey because the participant told me that he changed his mind and he doesn't want any more to participate in the study and he indicated a desire that his answers not to be included in the study. His request was respected and honored.

Three other collected surveys were eliminated because either the participants didn't answer correctly, or they didn't finish at least self-rating part of the survey. So, one hundred seven questionnaires are correct and accepted in the first part of the study concerning participants rating themselves. From those one hundred seven participants thirteen refused to rate their colleagues therefore only ninety-four will be used in the second part of the study concerning rating others.

### ***II.1.6.Data Analysis***

analyzing the data collected from this survey was separated in two parts. The first part was a descriptive analysis of the self-rating survey and the second part was a descriptive analysis of the others rating survey to answer three main research questions. An additional task was to investigate any possible significant differences of gender and total years of experience as a manager on frame usage (self-rating survey).

#### ***II.1.6.1.Research Question one:***

Which frames of Bolman and Deal's do the leaders and managers from Algerian higher education institutions report as the most dominant frames (self-rating and others rating)?

The best way to answer this question is by adding together all responses for each question and computing the mean score from the Likert type scale for each of 32 questions in section one of the survey. then computing standard deviation and range for each question in section one of the survey. The next step is computing a mean score for each frame together by adding all the responses related with each frame. Then computing standard deviations and ranges for each frame. The last step is repeating the same process for in section two of the survey.

#### **II.1.6.2. *Research Question two:***

How many frames do the leaders and managers from Algerian higher education institutions use (self-rating and others rating)?

The best way to answer this question is by computing a mean score for each respondent for each frame separately from section one of the survey. To consider a leader use and have access to a frame, his mean score for that frame must be at least 4. This condition was set by Bolman and Deal (1991) and was respected by all previous studies that used this survey.

#### **II.1.6.3. *Research Question Three:***

Are the leadership orientations reported by the leaders and managers from the Algerian higher education institutions related to their effectiveness as leaders and managers? (self-rating and others rating).

To answer this question a descriptive analysis of section three of the survey that enquired the respondents to rate themselves or other for leadership and managerial effectiveness was done. The aim for this analysis is to know how often each response is recorded. Then compute a mean score for leadership effectiveness and managerial effectiveness. The next step is performing a bivariate correlation analysis between leadership and managerial effectiveness, and each of the four frames using the Pearson correlation coefficient.

There is an extra task for the self-rated survey. The task is investigating the relation between gender, and total years of experience and frame usage by the manager and leader from Algerian universities.

To answer this question independent samples t-tests<sup>201</sup> were performed between gender and frame usage. Then, an analysis of frame usage and total years of experience as a manager was performed using one-way ANOVA<sup>202</sup>. Managers were separated into 3 groups (one to three years; four to seven years; more than seven years) total years of experience. post hoc analysis using Tukey HSD must be performed if any significant differences were found in the test, to determine which means are not equal.

## ***II.2.Results and findings***

Results and findings of this study are separated in two parts. Part one concern the self-rating survey and part two the others rating survey. In each part we try to answer the three main questions of this study. An additional task of the self-rating survey is to investigate any possible significant differences of gender and total years of experience as a manager on frame usage

### ***II.2.1.Self-rating survey analyses***

In this part the self-rated survey is used to answer the main three questions of the research. Also, section 4 of the self-rated survey is used to investigate the relation between gender and frame usage, and the total years of experience and frame usage.

#### ***II.2.1.1.Research Question one***

Which frames of Bolman and Deal's do the leaders and managers from Algerian higher education institutions report as the most dominant frames?

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<sup>201</sup> Independent samples t-tests were chosen because they are used to check for differences between two independent groups on the means of a continuous variable. In this study the continuous variable is each of the four frames.

<sup>202</sup> The one-way ANOVA test was chosen because there are multiple means to compare. When comparing multiple means, the one-way ANOVA is the recommended in place of performing multiple t-tests.



to answer this question a mean score, standard deviations and ranges for each frame was computed by adding all the responses related with each frame according to reframing theory by Bolman and Deal (1991). There are two sections in the survey to answer this question. Section one contains 32 items (8 items for each frame) respondents rate themselves on a five-point, Likert-type scale. Section two of the Leadership Orientations Instruments contained six forced-choice items.

#### ***II.2.1.1.1. Section one of the survey***

Question 1 (Think very clearly and logically) in the structural frame had the highest average rating, 4.45, for any of the 32 questions in the survey. Question 23 (Am politically very sensitive and skillful) in the political frame had the lowest average rating, 3.13 in the survey.

#### ***II.2.1.1.1.1. Structural Frame***

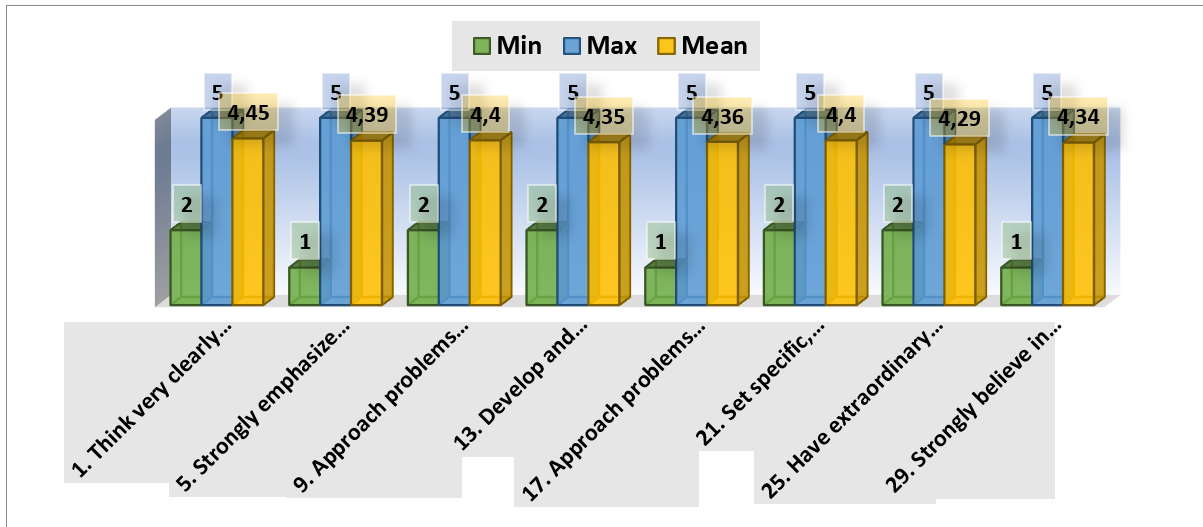
**Table 15: Means, Standard Deviations, and Range of Responses to Structural Frame Items**

<b>Structural Frame Items</b>	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>SD</b>
1. Think very clearly and logically.	107	2	5	4,45	0,69
9. Approach problems through logical analysis and careful thinking.	107	2	5	4,4	0,823
21. Set specific, measurable goals and hold people accountable for results.	107	2	5	4,4	0,725
5. Strongly emphasize careful planning and clear timelines.	107	1	5	4,39	0,855
17. Approach problems with facts and logic.	107	1	5	4,36	0,838
13. Develop and implement clear, logical policies and procedures.	107	2	5	4,35	0,802
29. Strongly believe in clear structure and a chain of command	107	1	5	4,34	0,868
25. Have extraordinary attention to detail.	107	2	5	4,29	0,901

**The source: SPSS calculations using data from the surveys**

These results show that all the eight structural frame questions scored a mean above 4. Question 1 (Think very clearly and logically) scored the highest mean by 4.45. Question 25 (Have extraordinary attention to detail) scored the lowest mean by 4.29. This result reflects a high access and use of the structural frame by the Algerian leaders that participated in this survey.

*Figure 23: Means and Range of the Structural Frame Items*



Source: table 15

*II.2.1.1.1.2.Human Resource Frame*

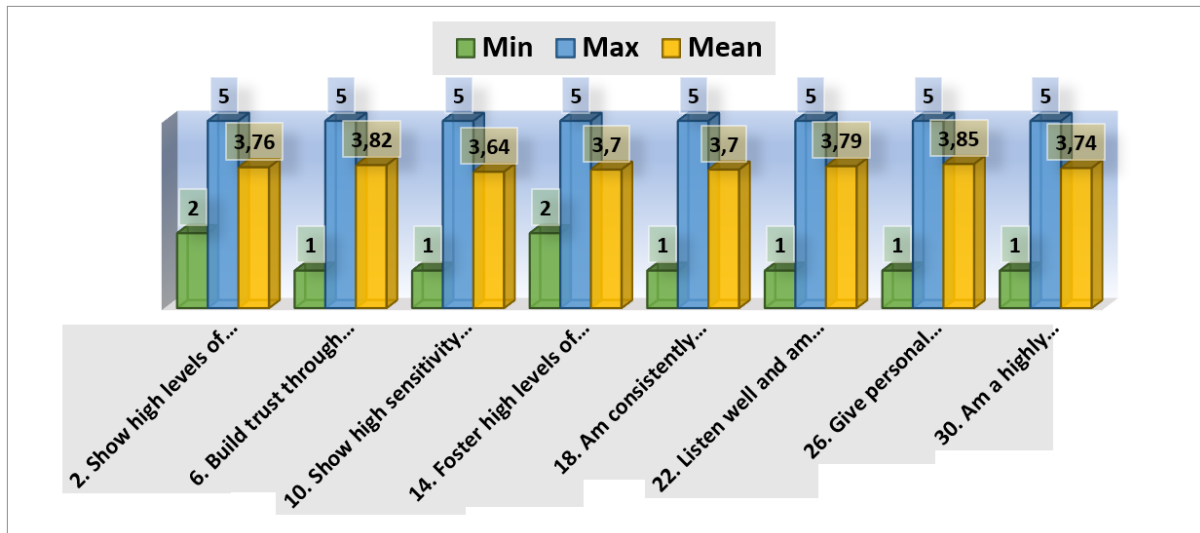
**Table 16: Means, Standard Deviations, and Range of Responses to Human Resource Frame Items**

<b>Human Resource Frame</b>	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>SD</b>
26. Give personal recognition for work well done.	107	1	5	3,85	0,95
6. Build trust through open and collaborative relationships.	107	1	5	3,82	0,969
22. Listen well and am unusually receptive to other people's ideas and input.	107	1	5	3,79	0,972
2. Show high levels of support and concern for others	107	2	5	3,76	0,899
30. Am a highly participative manager.	107	1	5	3,74	0,975
14. Foster high levels of participation and involvement in decisions.	107	2	5	3,7	1,021
18. Am consistently helpful and responsive to others.	107	1	5	3,7	0,913
10. Show high sensitivity and concern for others' needs and feelings.	107	1	5	3,64	0,975

**The source: SPSS calculations using data from the surveys**

Results of the human resource frame items indicated that none of the eight human resource frame questions scored a mean equal or above 4. Question 26 “Give personal recognition for work well done” scored the highest mean by 3.85. Question 10 “Show high sensitivity and concern for others' needs and feelings” scored the lowest mean by 3.64. This result was disappointing because it reflects that the managers of Algerian higher education institutions don’t use the human resource frame to approach organizational issues.

**Figure 24: Means and Range of the Human Resource Frame Items**



**Source: table 16**

**II.2.1.1.1.3. Political Frame**

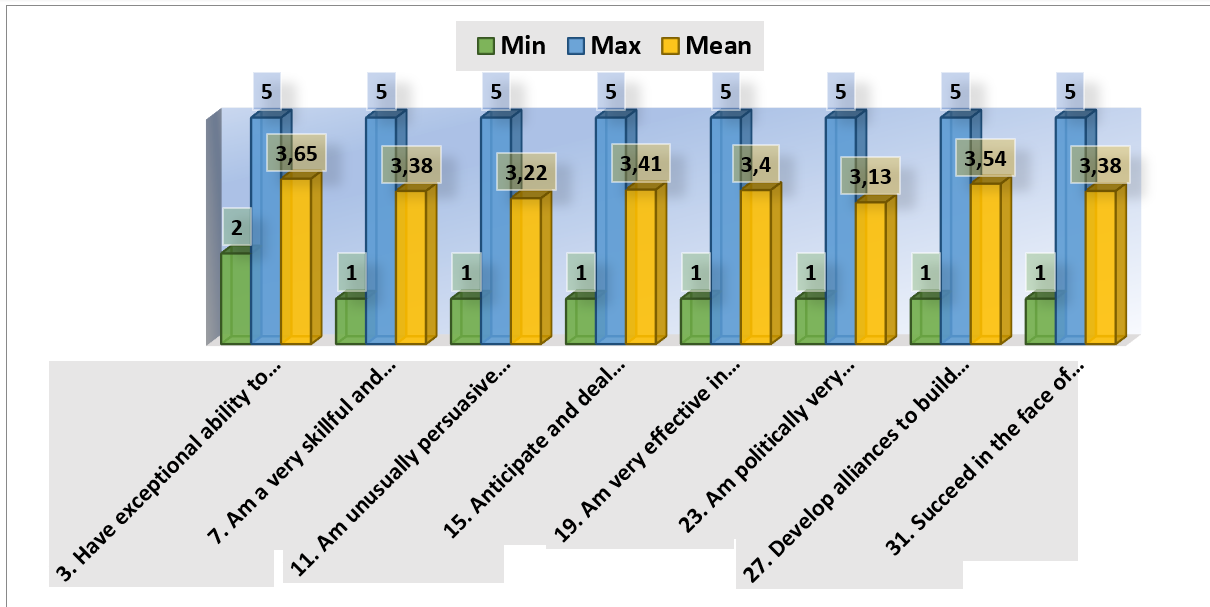
**Table 17: Means, Standard Deviations, and Range of Responses to Political Frame Items**

<b>Political Frame Items</b>	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>SD</b>
3. Have exceptional ability to mobilize people and resources to get things done.	107	2	5	3,65	0,766
27. Develop alliances to build a strong base of support	107	1	5	3,54	1,066
15. Anticipate and deal adroitly with organizational conflict.	107	1	5	3,41	0,911
19. Am very effective in getting support from people with influence and power.	107	1	5	3,4	0,889
7. Am a very skillful and shrewd negotiator.	107	1	5	3,38	0,809
31. Succeed in the face of conflict and opposition.	107	1	5	3,38	0,886
11. Am I unusually persuasive and influential.	107	1	5	3,22	0,85
23. Am politically very sensitive and skillful	107	1	5	3,13	1,158

**The source: SPSS calculations using data from the surveys**

These results show that none of the eight political frame questions, scored a mean equal or above 4. Question 23 “Am politically very sensitive and skillful” scored the highest mean by 3.13. Question 3 “Have exceptional ability to mobilize people and resources to get things done” scored the lowest mean by 3.65. This result was as disappointing as the human resource frame, it shows that the political frame is not a dominant perspective for the Algerian managers to manage and lead their academic institutions.

**Figure 25: Means and Range of Responses to Political Frame Items**



Source: table 17

**II.2.1.1.1.4.Symbolic Frame**

**Table 18: Means, S.D, and Range of the Symbolic Frame Items**

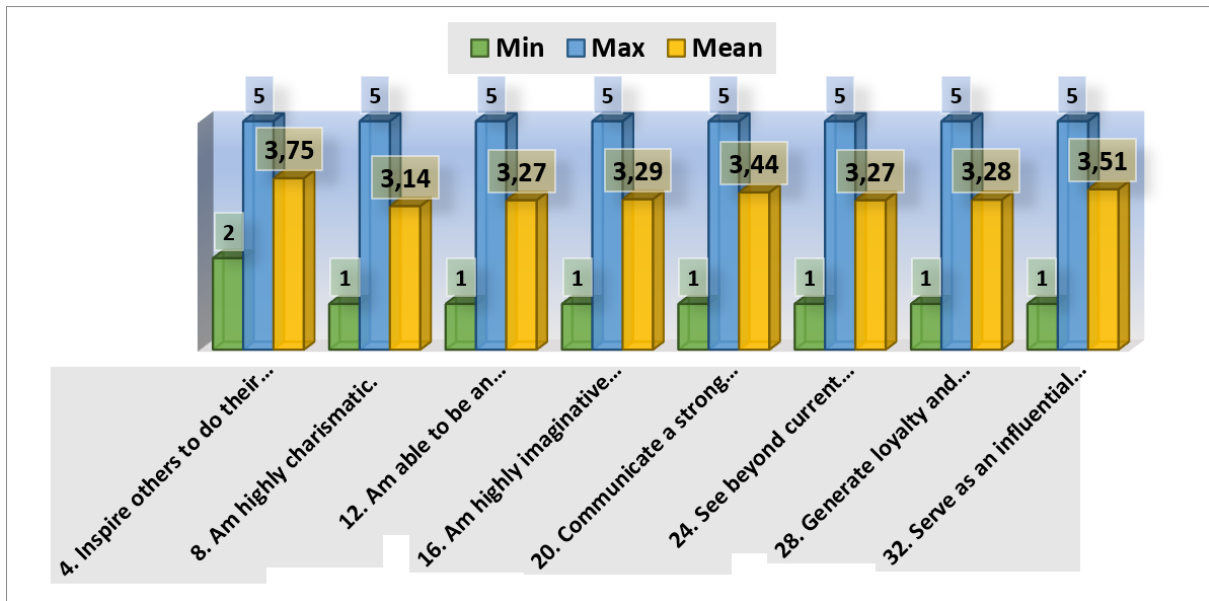
<b>Symbolic Frame Items</b>	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>SD</b>
4. Inspire others to do their best.	107	2	5	3,75	0,902
32. Serve as an influential model of organizational aspirations and values.	107	1	5	3,51	0,935
20. Communicate a strong and challenging sense of vision and mission.	107	1	5	3,44	0,963
16. Am highly imaginative and creative.	107	1	5	3,29	1,019
28. Generate loyalty and enthusiasm	107	1	5	3,28	1,053
12. Am able to be an inspiration to others.	107	1	5	3,27	0,842
24. See beyond current realities to generate exciting new opportunities.	107	1	5	3,27	0,842
8. Am highly charismatic.	107	1	5	3,14	1,014

**The source: SPSS calculations using data from the surveys**

These results show that none of the eight symbolic frame questions scored a mean equal or above 4. Question 4 (Inspire others to do their best) scored the highest mean by 3.75. Question 8 (Am highly charismatic) scored the lowest mean by 3.14. This result was also disappointing as the human resource and the political frames, it reflects a poorly access and utilize of the symbolic frame by Algerians academic institutions.



**Figure 26: Means and Range of Responses to Symbolic Frame Items**



**Source: table 18**

**II.2.1.1.1.5.All Frame**

**Table 19: Means and Standard Deviations for All Items by Frame**

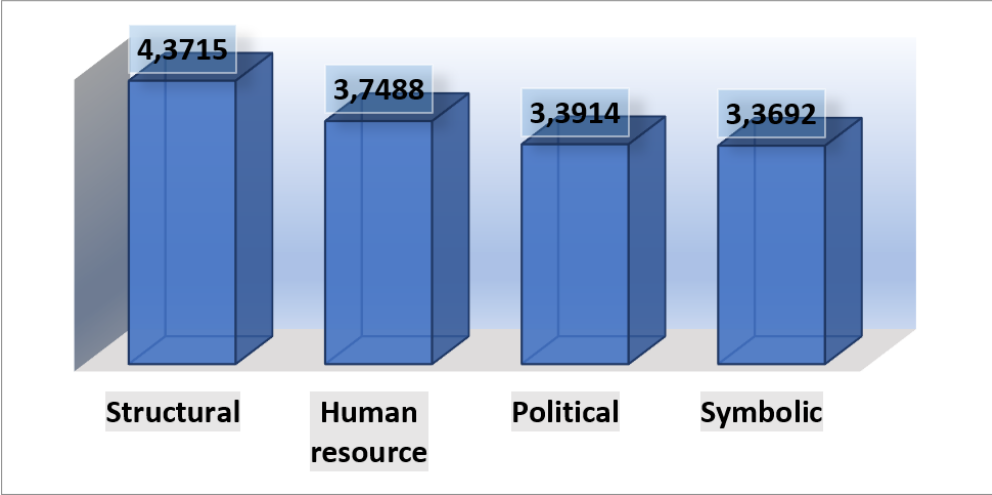
Frames	N	Mean	Std. Deviation
Structural	107	4,3715	0,49
Human resource	107	3,7488	0,668
Political	107	3,3914	0,522
Symbolic	107	3,3692	0,572

**The source: SPSS calculations using data from the surveys**

The frame with the highest mean was the Structural frame with 4.3715 and with the lowest stander deviation 0.49001. Other frames had means less than 4 which consider disappointing. This result shows that the Structural frame is the most

dominant among Algerian academic institutions, and the other frames are not used to approach organizational issues.

*Figure 27: Means for All Items by Frame*



Source: table 19

*II.2.1.1.2. Section two of the survey*

*II.2.1.1.2.1. Structural frame*

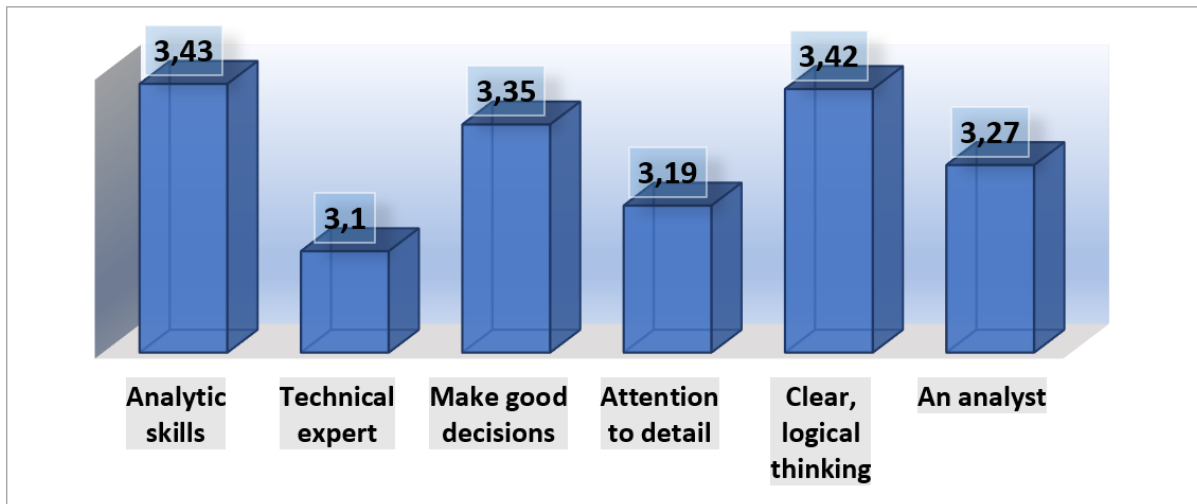
**Table 20: Means, S.D, and Range of the Structural Frame**

Structural frame		N	Range	Mean	SD
My strongest skills are:	Analytic skills	107	3	3,43	0,859
The best way to describe me is:	Technical expert	107	3	3,10	1,09
What has helped me the most to be successful is my ability to:	Make good decisions	107	3	3,35	1,01
What people are most likely to notice about me is my:	Attention to detail	107	3	3,19	0,982
My most important leadership trait is:	Clear, logical thinking	107	3	3,42	0,88
I am best described as:	An analyst	107	3	3,27	0,996

**The source: SPSS calculations using data from the surveys**

Results of the structural frame items indicated that all the six structural frame questions scored a mean above 3. Question 1 (My strongest skills are:Analytic skills) scored the highest mean by 3.43. Question 2 (The best way to describe me is: Technical expert) scored the lowest mean by 3.10. This result reflects a high access and use of the structural frame by the Algerian leaders that participated in this survey.

*Figure 28: means of Structural frame*



Source: table 20

### *II.2.1.1.2.2.Human Resource*

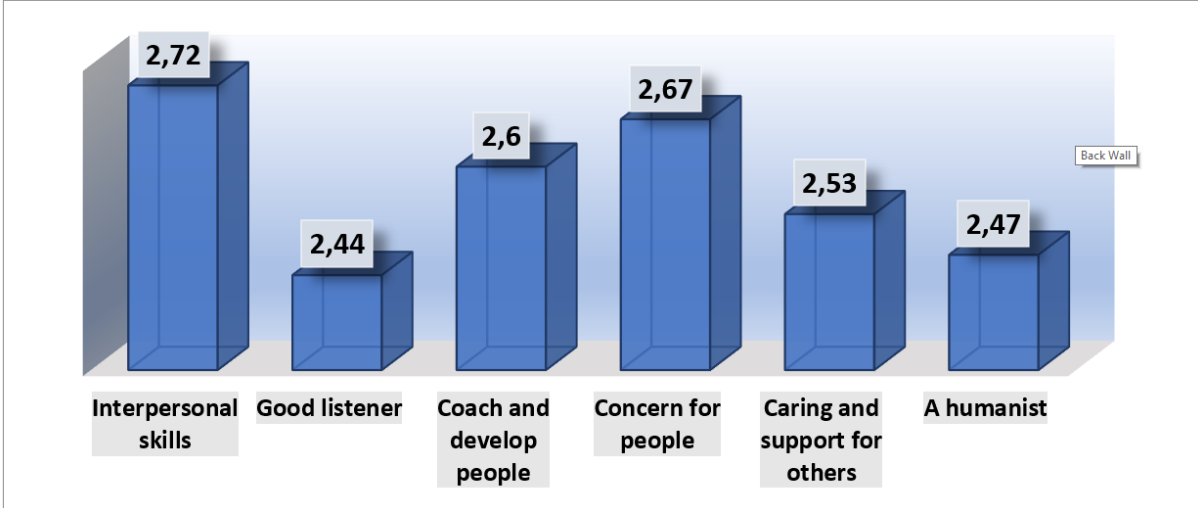
*Table 21: Means, S.D, and Range of the Human Resource Frame*

Human Resource frame		N	Range	Mean	SD
My strongest skills are:	Interpersonal skills	107	3	2,72	1,017
The best way to describe me is:	Good listener	107	3	2,44	1,048
What has helped me the most to be successful is my ability to:	Coach and develop people	107	3	2,60	0,867
What people are most likely to notice about me is my:	Concern for people	107	3	2,67	0,998
My most important leadership trait is:	Caring and support for others	107	3	2,53	1,031
I am best described as:	A humanist	107	3	2,47	1,067

The source: SPSS calculations using data from the surveys

Results of the human resource frame items indicated that none of the six human resource frame questions scored a mean equal or above 3. Question 1 (My strongest skills are: Interpersonal skills) scored the highest mean by 2.72. Question 2 (The best way to describe me is: Good listener) scored the lowest mean by 2.44. This result was disappointing because it reflects that the managers of Algerian higher education institutions don't use the human resource frame to approach organizational issues.

*Figure 29: means of Human Resource frame*



*Source: table 21*

***II.2.1.1.2.3. Political frame***

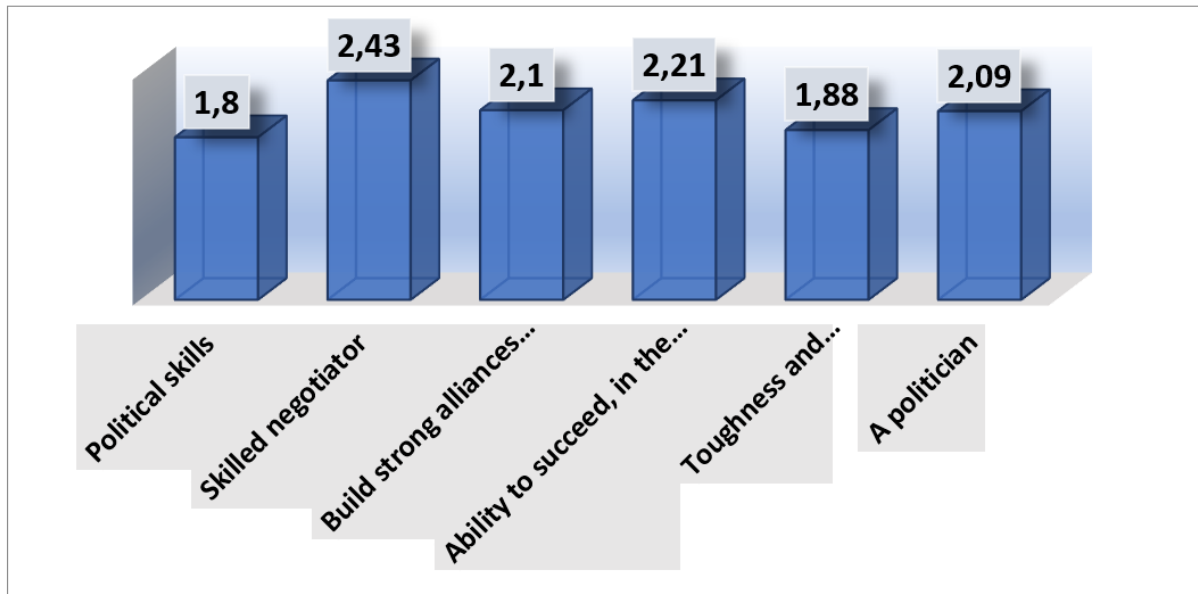
**Table 22: Means, S.D, and Range of the Political Frame**

Political frame		N	Range	Mean	SD
My strongest skills are:	Political skills	107	3	1,80	0,806
The best way to describe me is:	Skilled negotiator	107	3	2,43	1,01
What has helped me the most to be successful is my ability to:	Build strong alliances and a power base	107	3	2,10	1,046
What people are most likely to notice about me is my:	Ability to succeed, in the face of conflict and opposition	107	3	2,21	1,055
My most important leadership trait is:	Toughness and aggressiveness	107	3	1,88	0,939
I am best described as:	A politician	107	3	2,09	0,937

**The source: SPSS calculations using data from the surveys**

Results of the political frame items indicated that none of the six political frame questions scored a mean equal or above 3. Question 2 (The best way to describe me is: Skilled negotiator) scored the highest mean by 2.43. Question 1 (My strongest skills are: Political skills) scored the lowest mean by 1.80. This result was as disappointing as the human resource frame, it shows that the political frame is not a dominant perspective for the Algerian managers to manage and lead their academic institutions.

*Figure 30: means of Political frame*



Source: table 22

*II.2.1.1.2.4.Symbolic frame*

**Table 23: Means, S.D, and Range of the Symbolic Frame**

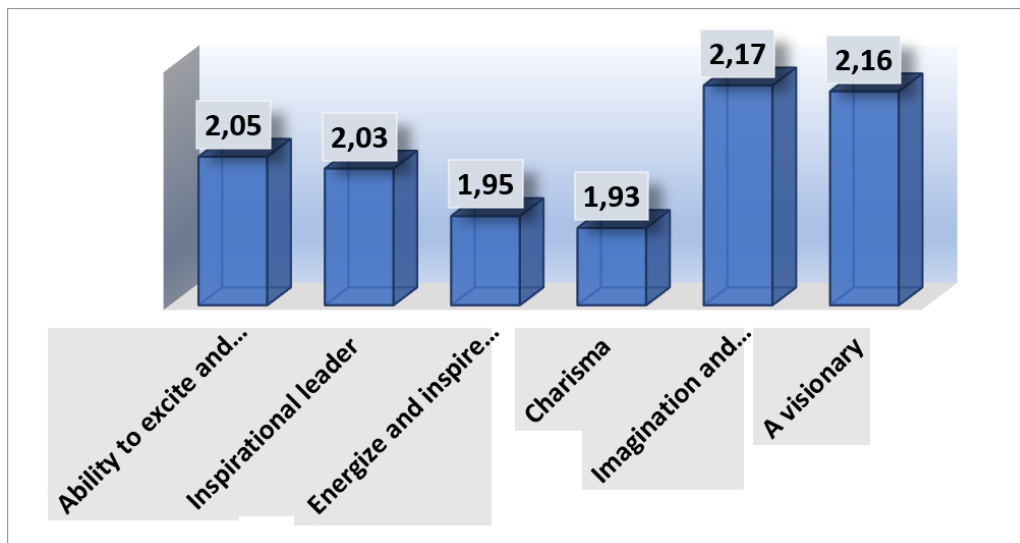
Symbolic frame		N	Range	Mean	SD
My strongest skills are:	Ability to excite and motivate	107	3	2,05	1,004
The best way to describe me is:	Inspirational leader	107	3	2,03	1,068
What has helped me the most to be successful is my ability to:	Energize and inspire others	107	3	1,95	0,994
What people are most likely to notice about me is my:	Charisma	107	3	1,93	1,025
My most important leadership trait is:	Imagination and creativity	107	3	2,17	0,986
I am best described as:	A visionary	107	3	2,16	1,074

**The source: SPSS calculations using data from the surveys**

Results of the Symbolic frame items indicated that none of the six Symbolic frame questions scored a mean equal or above 3. Question 5 (My most important leadership trait is: Imagination and creativity) scored the highest mean by 2.17. Question 4 (What people are most likely to notice about me is my: Charisma) scored the lowest mean by 1.93. This result was also disappointing as the human resource and the political frames, it reflects a poorly access and utilize of the symbolic frame by Algerians academic institutions.



*Figure 31: means of Symbolic frame*



**Source: table 23**

#### *II.2.1.1.2.5.All Frames*

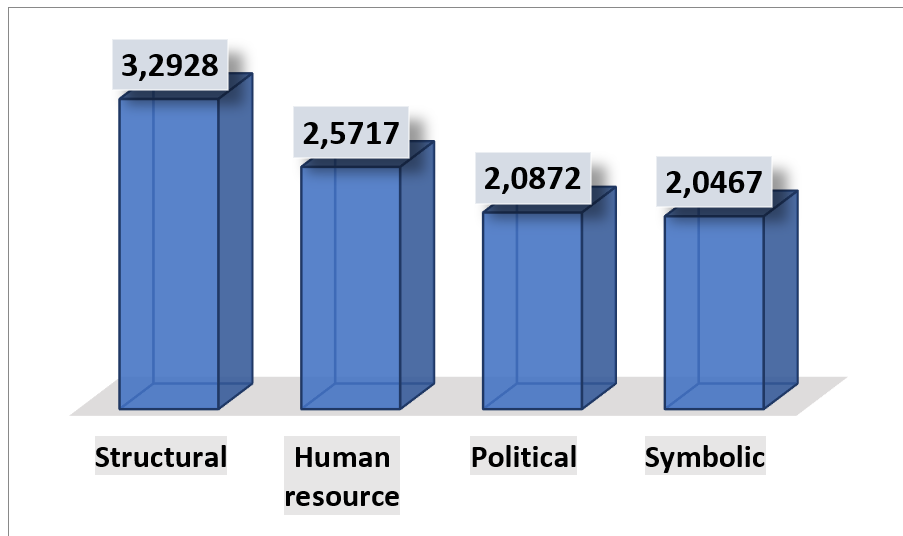
*Table 24: Means and Standard Deviations for All Items by Frame*

<b>Frames</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
<b>Structural</b>	107	3,2928	0,654
<b>Human resource</b>	107	2,5717	0,489
<b>Political</b>	107	2,0872	0,476
<b>Symbolic</b>	107	2,0467	0,547

**The source: SPSS calculations using data from the surveys**

The frame with the highest mean was the Structural frame with 3.2928. Other frames had means less than 3 which consider disappointing. This result shows that the Structural frame is the most dominant among Algerian academic institutions, and the other frames are not used to approach organizational issues.

*Figure 32: Means for All Items by Frame*



Source: table 24

### II.2.1.2. *Research Question two*

How many frames do the leaders and managers from Algerian higher education institutions use?

The best way to answer this question is by computing a mean score for each respondent for each frame separately from section one of the survey. To consider a leader use and have access to a frame, his mean score for that frame must be at least 4. This condition was set by Bolman and Deal (1991) and was respected by all previous studies that used this survey.

### *II.2.1.2.1. Frames Frequency*

*Table 25: Frames Frequency*

	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Percent</b>
<b>No Frames</b>	13	12,1	12,1
<b>One Frame</b>	54	50,5	62,6
<b>Two Frames</b>	19	17,8	80,4
<b>Three Frames</b>	10	9,3	89,7
<b>Four Frames</b>	11	10,3	100,0
<b>Total</b>	107	100,0	

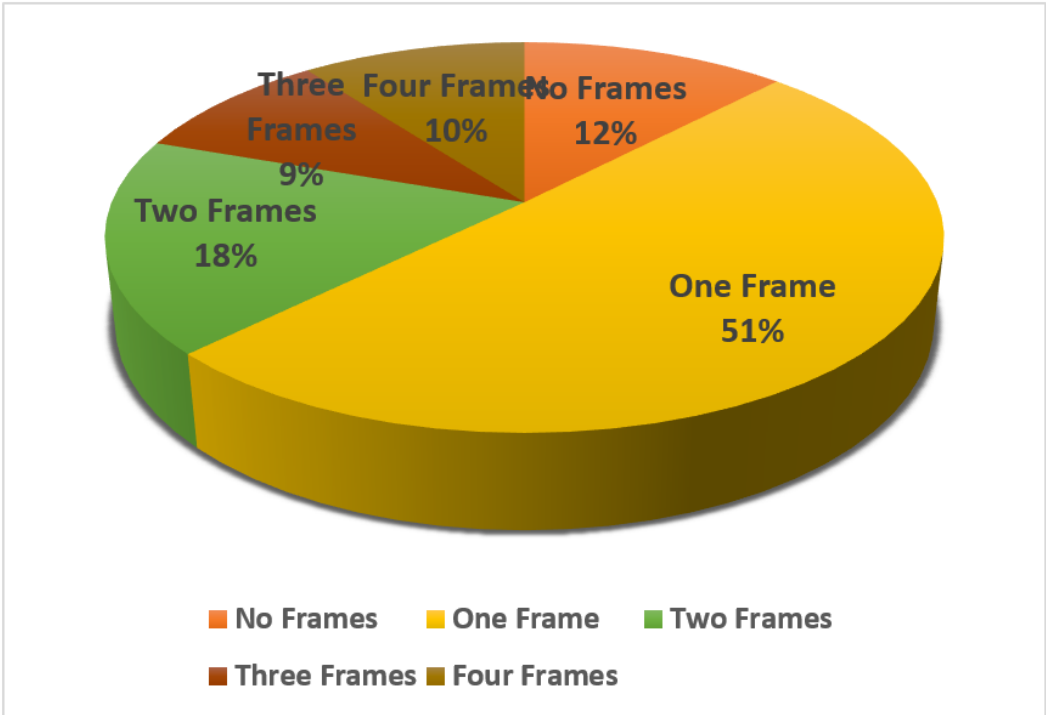
**The source: SPSS calculations using data from the surveys**

These results show that from the one hundred seven respondents:

- eleven (10.3%) managers use and have access to all four frames.
- ten (9.3%) managers use and have access to three frames.
- nineteen managers (17,8%) use and have access to two frames.
- fifty-four managers (50,5%) use and have access to one frame
- thirteen (12,1%) respondents use no frames.

Therefore, only forty (37.4%) out of a possible one hundred seven respondents indicated multiple frame use. These findings are unusual in previous studies, and they are disappointing according to the reframing theory by Bolman and Deal (1991).

*Figure 33: Frames Frequency*



Source: table 25

### II.2.1.2.2. Number of Frames Frequency

Table 26: Number of Frames Frequency

Number of Frames	Frequency
<b>No frames</b>	<b>n=13</b>
<b>Single frame</b>	<b>n=54</b>
Structural	52
Human Resource	2
Political	0
Symbolic	0
<b>Paired-frames</b>	<b>n=19</b>
Structural	17
Human Resource	16
Political	1
Symbolic	4
<b>Multi-frames</b>	<b>n=10</b>
Structural	10
Human Resource	10
Political	4
Symbolic	6
<b>All frames</b>	<b>n=11</b>

The source: SPSS calculations using data from the surveys

These results show that fifty-four managers reported using only one frame. Of those fifty-four managers:

- fifty-two managers reported using the structural frame
- two managers reported using the human resource frame.
- No one use the symbolic or the political frame.

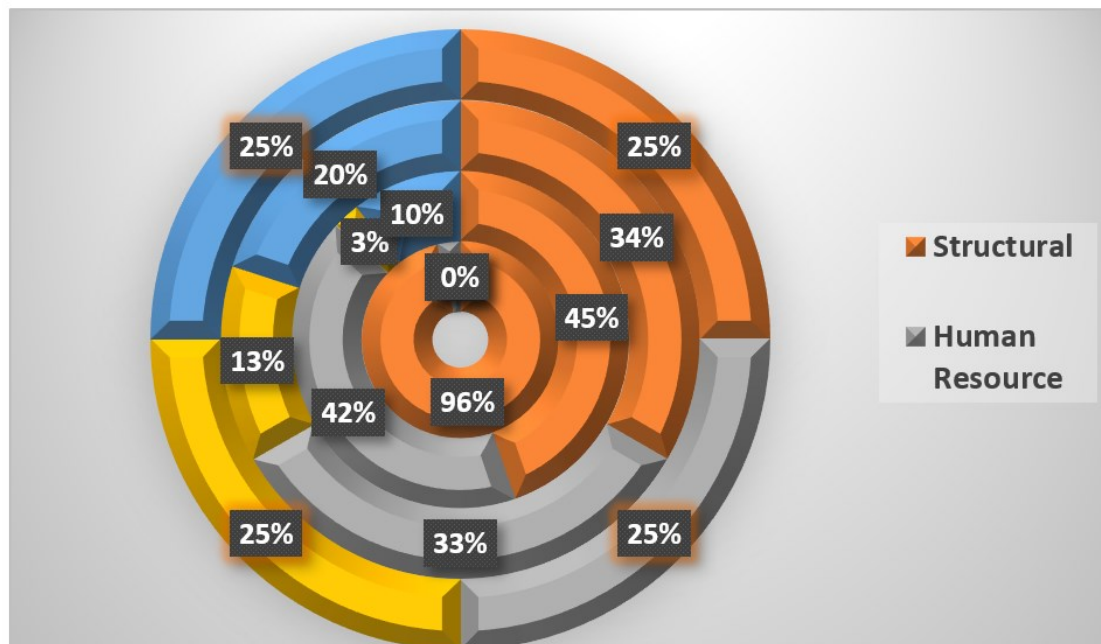
Nineteen managers reported the use of two frames. Of those Nineteen managers:

- seventeen managers use the structural frame.
- sixteen managers use the human resource frame.
- four managers use the symbolic frame.
- one manager uses the political frame.

ten managers reported the use of three frames. Of those ten managers:

- The structural and the human resource frames were both used ten time.
- The political frame was used four time.
- the symbolic frame was used six time.

*Figure 34: Number of Frames Frequency*



Source: table 26

### II.2.1.3. *Research Question Three*

Are the leadership orientations reported by the leaders and managers from Algerian higher education institutions related to their effectiveness as leaders and managers?

To answer this question a descriptive analysis of section three of the survey that enquired the respondents to rate themselves or other for leadership and managerial effectiveness was done. The aim for this analysis is to know how often each response is recorded. Then compute a mean score for leadership effectiveness and managerial effectiveness. The next step is performing a bivariate correlation analysis between leadership and managerial effectiveness, and each of the four frames using the Pearson correlation coefficient.

#### II.2.1.3.1. *Self-Reported Overall Rating of Effectiveness as a manager*

*Table 27: Self-Reported Overall Rating of Effectiveness as a manager*

	Frequency	Percent
1 (Bottom 20%)	1	0,9
2	3	2,8
3 (Middle 20%)	20	18,7
4	53	49,5
5 (Top 20%)	30	28,0
<b>Total</b>	107	100,0

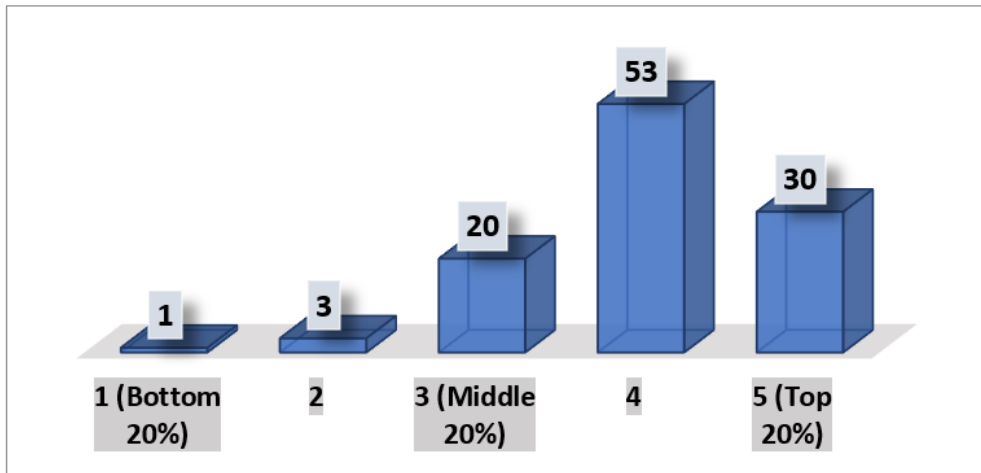
**The source: SPSS calculations using data from the surveys**

These results show that the managers of the Algerian academic institutions rated themselves as a very effective manager:

- eighty-three managers (77.5%) rated themselves above the middle 20%

- 28% of the managers rated themselves in the top 20%.

*Figure 35: Self-Reported Overall Rating of Effectiveness as a manager*



*Source: table 27*

### *II.2.1.3.2. Self-Reported Overall Rating of Effectiveness as a Leader*

*Table 28: Self-Reported Overall Rating of Effectiveness as a Leader*

	Frequency	Percent
1 (Bottom 20%)	0	0
2	2	1,9
3 (Middle 20%)	30	28,0
4	50	46,7
5 (Top 20%)	25	23,4
<b>Total</b>	107	100,0

**The source: SPSS calculations using data from the surveys**

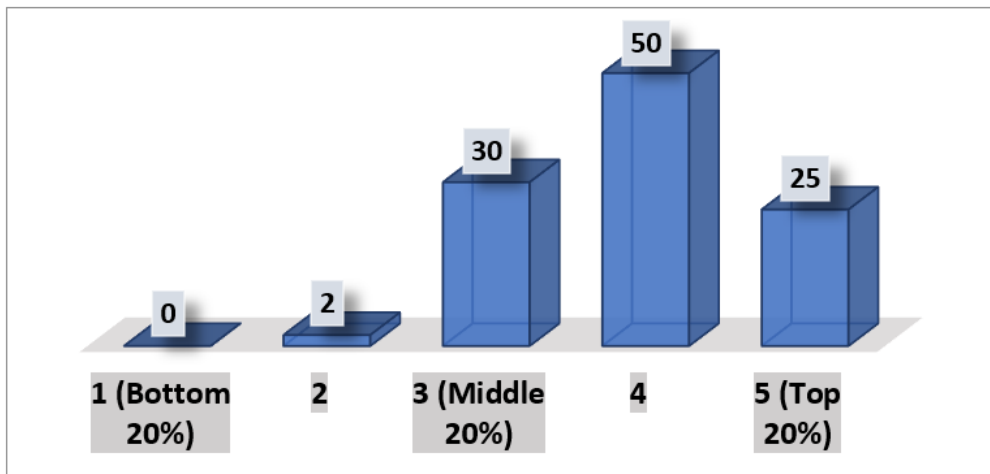
These results show that the managers of the Algerian academic institutions rated themselves lower when it comes to leadership effectiveness:

- seventy-five managers (70.1%) rated themselves above the middle 20%



- 23.4% of the managers rated themselves in the top 20%.

**Figure 36: Self-Reported Overall Rating of Effectiveness as a Leader**



*Source: table 28*

a bivariate correlation analysis between leadership and managerial effectiveness, and each of the four frames using the Pearson correlation coefficient was performed.

### ***II.2.1.3.3. Pearson correlation between the self-perceived managerial ratings for each of the four frames***

**Table 29: Pearson correlation between the self-perceived managerial ratings for each of the four frames**

		Structural	Human resource	Political	Symbolic
<b>Overall effectiveness as a manager</b>	<b>Pearson Correlation</b>	,212*	,227*	,359**	,300**
	<b>Sig. (2-tailed)</b>	,029	,019	,000	,002
	<b>N</b>	107	107	107	107

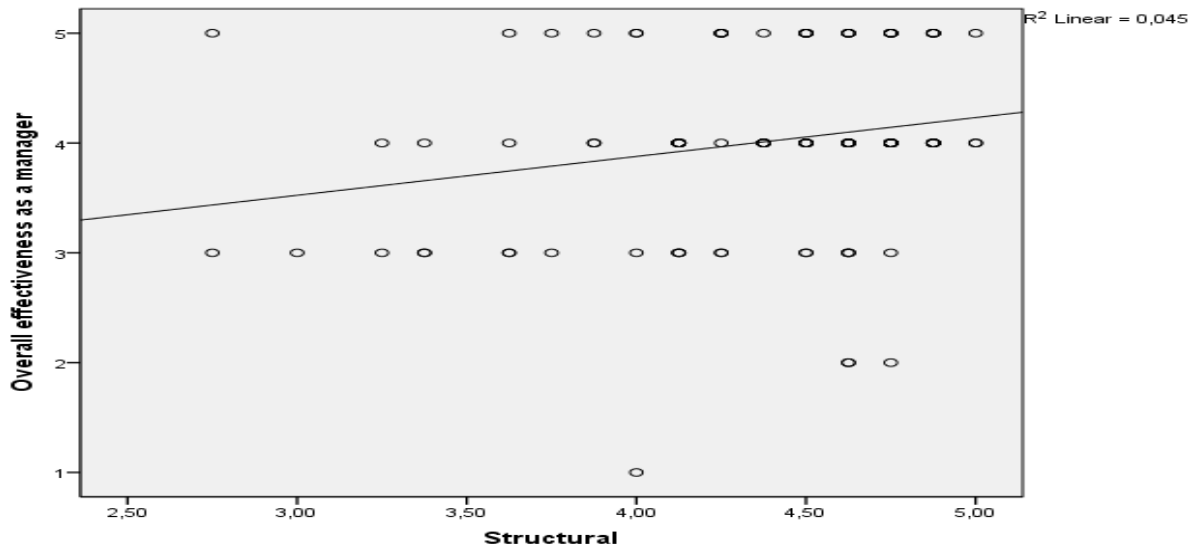
\*. Correlation is significant at the 0.05 level (2-tailed).

\*\*. Correlation is significant at the 0.01 level (2-tailed).

**Source: SPSS calculations using data from the surveys**

### *II.2.1.3.3.1. Pearson correlation between managerial effectiveness and structural frame*

*Figure 37: Pearson correlation between managerial effectiveness and structural frame*

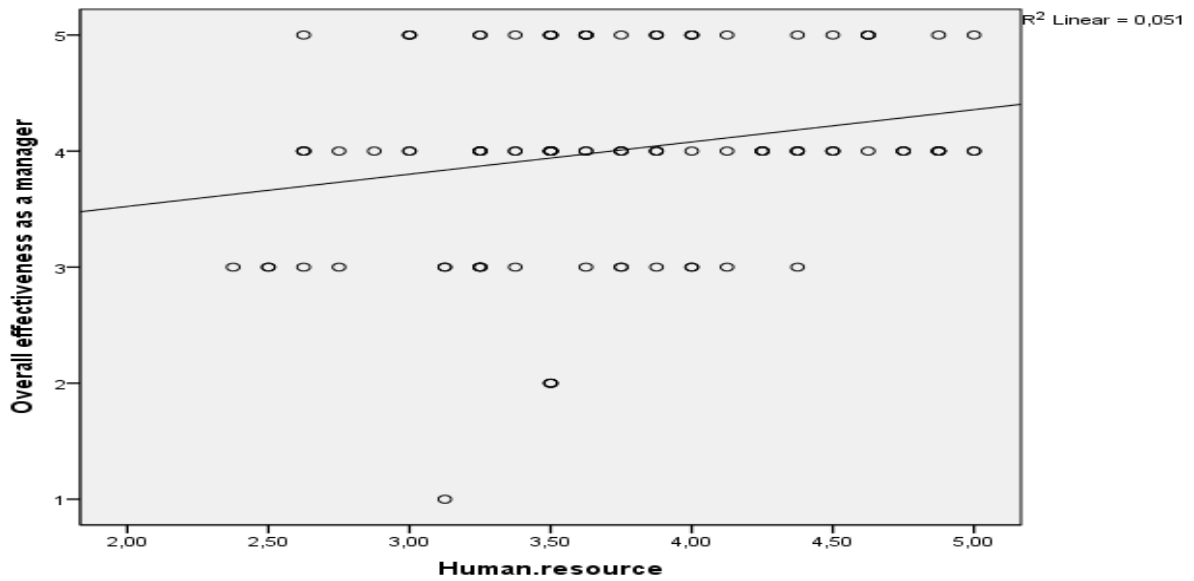


*Source: SPSS using data from the surveys*

These results show that the use of the structural frame and self-perceived managerial effectiveness are significantly related. The correlation shows a moderate positive relationship:  $r(105) = 0.212, p < 0.05$ .

### *II.2.1.3.3.2. Pearson correlation between managerial effectiveness and human resource frame*

**Figure 38: Pearson correlation between managerial effectiveness and human resource frame**

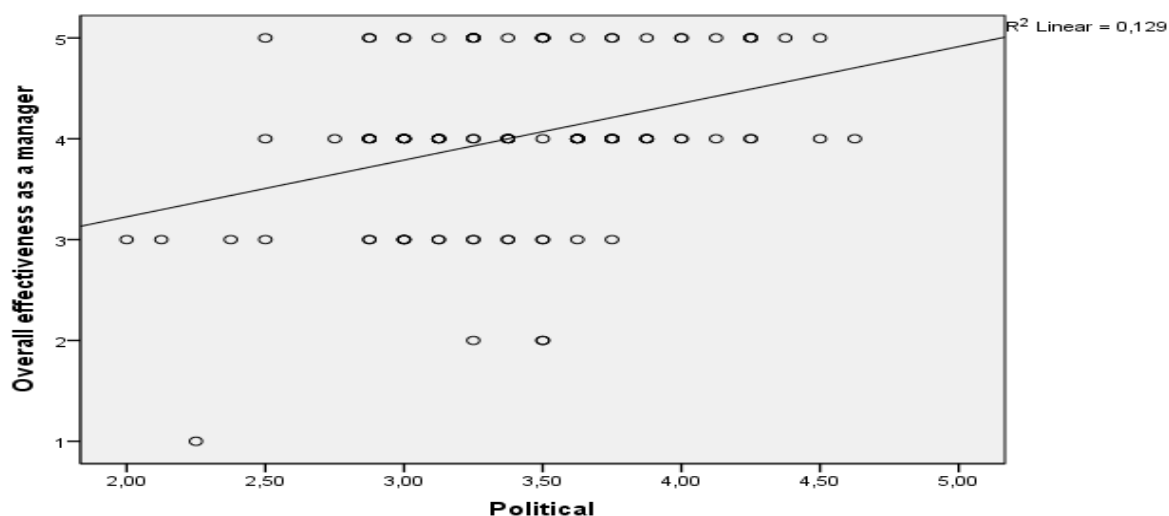


**Source: SPSS using data from the surveys**

These results show that the use of the human resource frame and self-perceived managerial effectiveness are significantly related. The correlation shows a moderate positive relationship:  $r(105) = 0.227, p < 0.05$ .

***II.2.1.3.3. Pearson correlation between managerial effectiveness and political frame***

**Figure 39: Pearson correlation between managerial effectiveness and political frame**

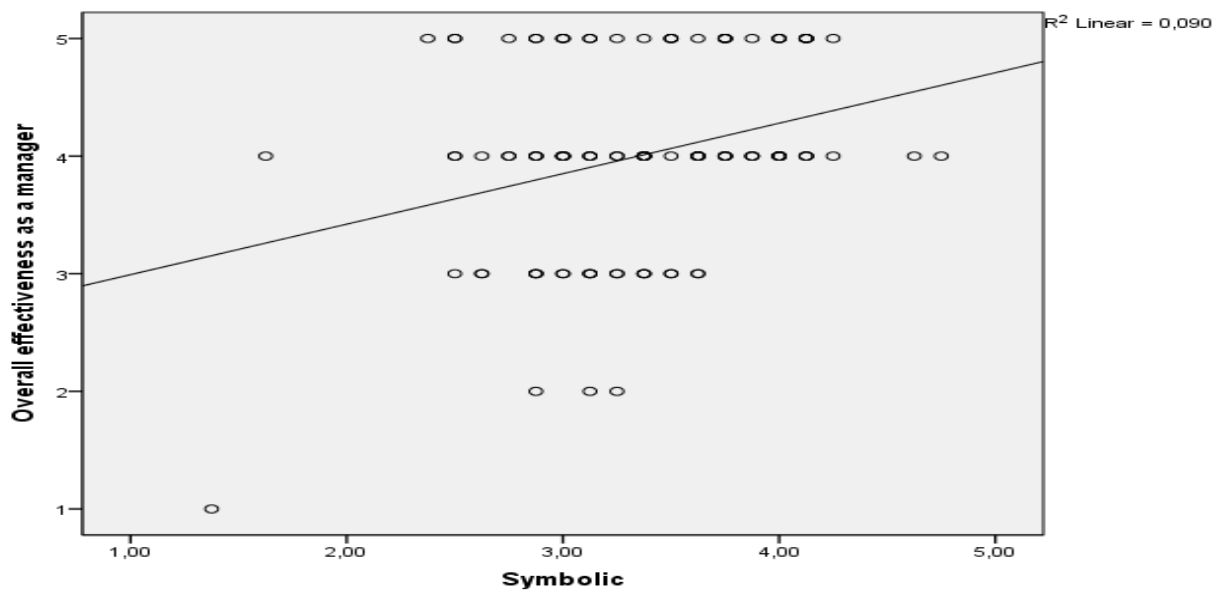


**Source: SPSS using data from the surveys**

These results show that the use of the political frame and self-perceived managerial effectiveness are significantly related. The correlation shows a moderate positive relationship:  $r(105) = 0.359, p < 0.01$ .

***II.2.1.3.3.4. Pearson correlation between managerial effectiveness and symbolic frame***

**Figure 40: Pearson correlation between managerial effectiveness and symbolic frame**



Source: SPSS using data from the surveys

These results show that the use of the symbolic frame and self-perceived managerial effectiveness are significantly related. The correlation shows a moderate positive relationship:  $r(105) = 0.3, p < 0.01$ .

*II.2.1.3.4. Pearson correlation between the self-perceived leadership ratings for each of the four frames*

*Table 30: Pearson correlation between the self-perceived leadership ratings for each of the four frames*

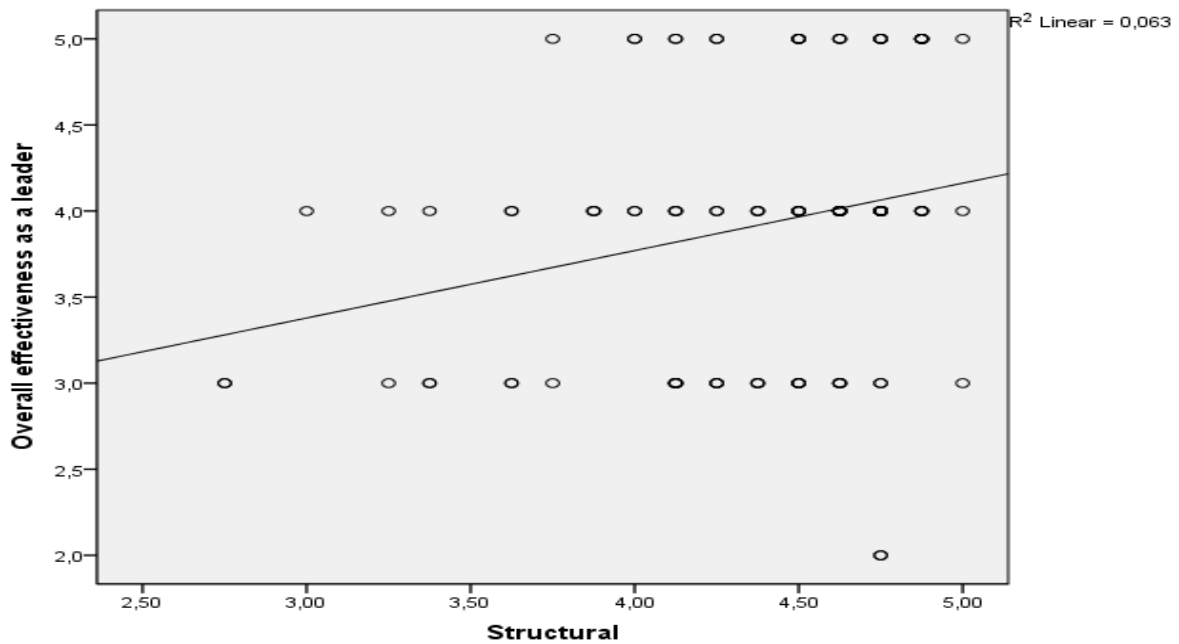
		Structural	Human resource	Political	Symbolic
Overall effectiveness as a leader	Pearson Correlation	,250**	,157	,293**	,179
	Sig. (2-tailed)	,009	,107	,002	,065
	N	107	107	107	107

\*\* Correlation is significant at the 0.01 level (2-tailed).

The source: SPSS using data from the surveys

*II.2.1.3.4.1. Pearson correlation between leadership effectiveness and structural frame*

**Figure 41: Pearson correlation between leadership effectiveness and structural frame**

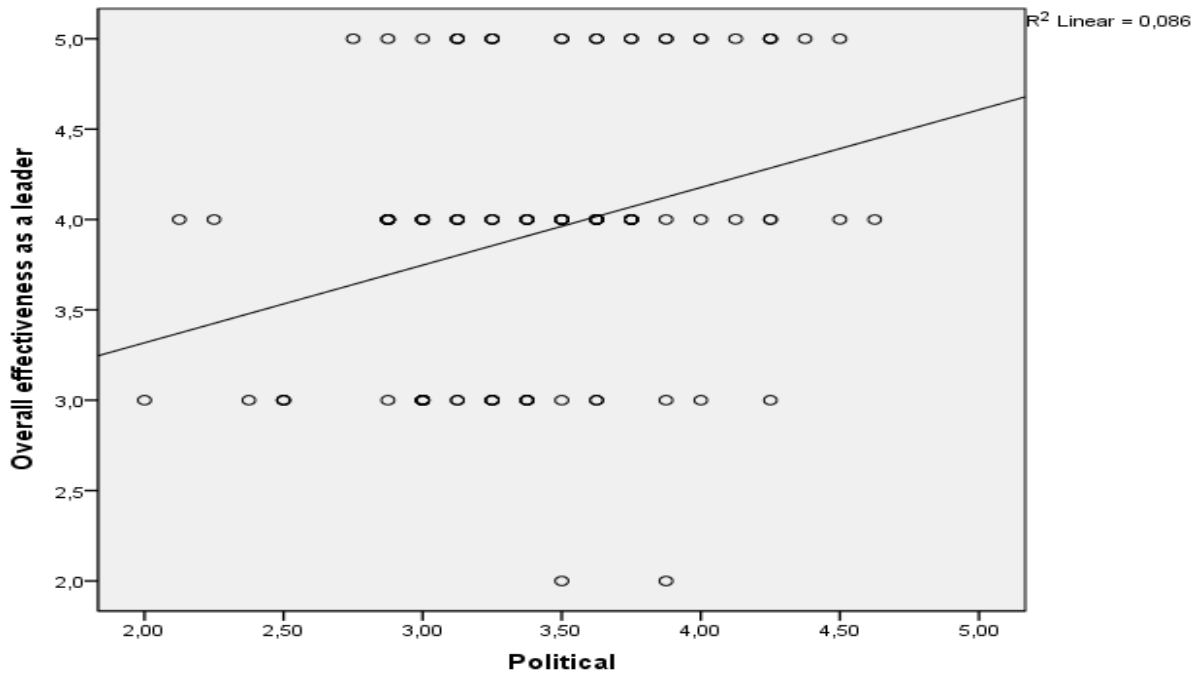


**Source: SPSS using data from the surveys**

These results show that the use of the structural frame and self-perceived leadership effectiveness are significantly related. The correlation shows a moderate positive relationship:  $r(105) = 0.250, p < 0.01$ .

*II.2.1.3.4.2. Pearson correlation between leadership effectiveness and human resource frame*

**Figure 42: Pearson correlation between leadership effectiveness and human resource frame**



*Source: SPSS using data from the surveys*

These results show that the use of the political frame and self-perceived leadership effectiveness are significantly related. The correlation shows a moderate positive relationship:  $r(105) = 0.293, p < 0.01$ .

These results show that the use of Human resource and the symbolic frame and self-perceived leadership effectiveness are not related.

#### **II.2.1.4. Discussion of Findings and Demographics**

There is an extra task for the self-rated survey. The task is investigating the relation between gender, and total years of experience and frame usage by the manager and leader from Algerian universities.

To answer this question independent samples t-tests were performed between gender and frame usage. Then, an analysis of frame usage and total years of experience as a manager was performed using one-way ANOVA. Managers were separated into 3 groups (one to three years; four to seven years; more than seven years) total years of experience. post hoc analysis using Tukey HSD must

be performed if any significant differences were found in the test, to determine which means are not equal.

**Demographic Information**

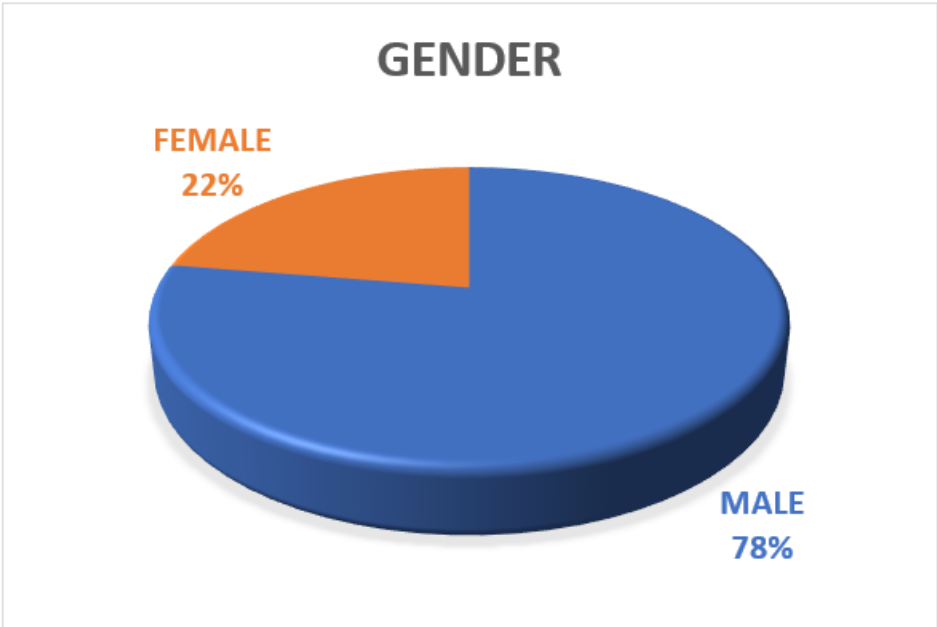
*Table 31: Gender Frequency*

Gender	Frequency	Percent
MALE	83	77,6
FEMALE	24	22,4
Total	107	100,0

Source: SPSS using data from the surveys

Of the one hundred seven respondents, eighty-three (77.6%) were male and twenty-four (22.4%) were female.

*Figure 43: Gender percentage*



Source: table 31



*Table 32: total years of experience as a manager*

		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	<b>1</b>	7	6,5	6,7	6,7
	<b>2</b>	14	13,1	13,5	20,2
	<b>3</b>	17	15,9	16,3	36,5
	<b>4</b>	12	11,2	11,5	48,1
	<b>5</b>	8	7,5	7,7	55,8
	<b>6</b>	13	12,1	12,5	68,3
	<b>7</b>	3	2,8	2,9	71,2
	<b>8</b>	8	7,5	7,7	78,8
	<b>9</b>	3	2,8	2,9	81,7
	<b>10</b>	8	7,5	7,7	89,4
	<b>12</b>	3	2,8	2,9	92,3
	<b>13</b>	1	,9	1,0	93,3
	<b>14</b>	2	1,9	1,9	95,2
	<b>15</b>	2	1,9	1,9	97,1
	<b>16</b>	2	1,9	1,9	99,0
	<b>25</b>	1	,9	1,0	100,0
		<b>Total</b>	104	97,2	100,0
<b>Missing</b>	<b>System</b>	3	2,8		
<b>Total</b>		107	100,0		

**Source: SPSS calculations using data from the surveys**

Of the one hundred seven respondents only one hundred four answered the question about total years of experience as a manager. The data revealed that the total years of experience were between one year and twenty-five years.

*Table 33: Means and Standard Deviations by Gender*

Gender		Structural	Human resource	Political	Symbolic
MALE	Mean	4,4277	3,8404	3,4473	3,4157
	N	83	83	83	83
	Std. Deviation	,44264	,65166	,53001	,57019
FEMALE	Mean	4,1771	3,4323	3,1979	3,2083
	N	24	24	24	24
	Std. Deviation	,59768	,63629	,44981	,55983
Total	Mean	4,3715	3,7488	3,3914	3,3692
	N	107	107	107	107
	Std. Deviation	,49001	,66754	,52167	,57189

Source: SPSS calculations using data from the surveys

*Table 34: Independent T-Test Comparison of Means by Gender ( $\alpha = .05$ )*

Frame	df	T	P
Structural	105	2,249	,027
Human Resource	105	2,716	,008
Political	105	2,095	,039
Symbolic	105	1,575	,118

Source: SPSS calculations using data from the surveys

These results show that there was no significant correlation between the frames usage and the gender of managers:

- symbolic frame:  $t(105) = 1.575$ ,  $p = 0.118$ .
- Political frame:  $t(105) = 2.095$ ,  $p = 0.039$ .
- Structural frame:  $t(105) = 2.249$ ,  $p = 0.027$ .
- Human Resource frame:  $t(105) = 2.716$ ,  $p = 0.008$ .

**Table 35: mean and SD of each frame by years groups**

		<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
<b>Structural</b>	<b>1 to 3 years</b>	38	4,3158	,47286
	<b>4 to 7 years</b>	33	4,3333	,55610
	<b>more than 7 years</b>	33	4,4735	,45259
	<b>Total</b>	104	4,3714	,49496
<b>Human resource</b>	<b>1 to 3 years</b>	38	3,7303	,70443
	<b>4 to 7 years</b>	33	3,6515	,68448
	<b>more than 7 years</b>	33	3,9280	,58047
	<b>Total</b>	104	3,7680	,66451
<b>Political</b>	<b>1 to 3 years</b>	38	3,3586	,48384
	<b>4 to 7 years</b>	33	3,3523	,59083
	<b>more than 7 years</b>	33	3,5189	,47611
	<b>Total</b>	104	3,4075	,51847
<b>Symbolic</b>	<b>1 to 3 years</b>	38	3,3980	,52219
	<b>4 to 7 years</b>	33	3,3636	,62995
	<b>more than 7 years</b>	33	3,3295	,60339
	<b>Total</b>	104	3,3654	,57893

**Source: SPSS calculations using data from the surveys**

**Table 36: One-Way ANOVA Comparison of Means by Years of Experience ( $\alpha = .05$ )**

		Sum of Squares	df	Mean Square	F	Sig.
<b>Structural</b>	<b>Between Groups</b>	,509	2	,255	1,040	,357
	<b>Within Groups</b>	24,724	101	,245		
	<b>Total</b>	25,233	103			
<b>Human resource</b>	<b>Between Groups</b>	1,347	2	,674	1,541	,219
	<b>Within Groups</b>	44,135	101	,437		
	<b>Total</b>	45,482	103			
<b>Political</b>	<b>Between Groups</b>	,602	2	,301	1,121	,330
	<b>Within Groups</b>	27,086	101	,268		
	<b>Total</b>	27,687	103			
<b>Symbolic</b>	<b>Between Groups</b>	,083	2	,041	,122	,886
	<b>Within Groups</b>	34,439	101	,341		
	<b>Total</b>	34,522	103			

**Source: SPSS calculations using data from the surveys**

These results show that there was no significant correlation between frames usage and the years of experience as a manager:

symbolic frame:  $F(2, 101) = 0.122, p = .886$ .

structural frame:  $F(2, 101) = 1.040, p = .357$ .

political frame:  $F(2, 101) = 1.121, p = .330$ .

human resource frame:  $F(2, 101) = 1.541, p = .219$ .

post hoc Tukey HSD tests was not done because it was not necessary since no significant correlation between frames usage and the years of experience as a

manager was found. Therefore, this study concludes that the years of experience as managers didn't affected the frame usage.

## ***II.2.2.Others-rating survey analyses***

### ***II.2.2.1.Research question one***

Which frames of Bolman and Deal's do the leaders and managers from the Algerian higher education institutions report as the most dominant frames for their colleagues?

The best way to answer this question is by adding together all responses for each question and computing the mean score from the Likert type scale for each of 32 questions in section one of the survey. then computing standard deviation and range for each question in section one of the survey. The next step is computing a mean score for each frame together by adding all the responses related with each frame. Then computing standard deviations and ranges for each frame. The last step is repeating the same process for in section two of the survey.

#### ***II.2.2.1.1.Section one of the survey***

Question 9 (Approach problems through logical analysis and careful thinking.) in the structural frame had the highest average rating, 4.32, for any of the 32 questions in the survey. Question 11 (Is unusually persuasive and influential) in the political frame had the lowest average rating, 3.29 in the survey.

##### ***II.2.2.1.1.1.Structural Frame***

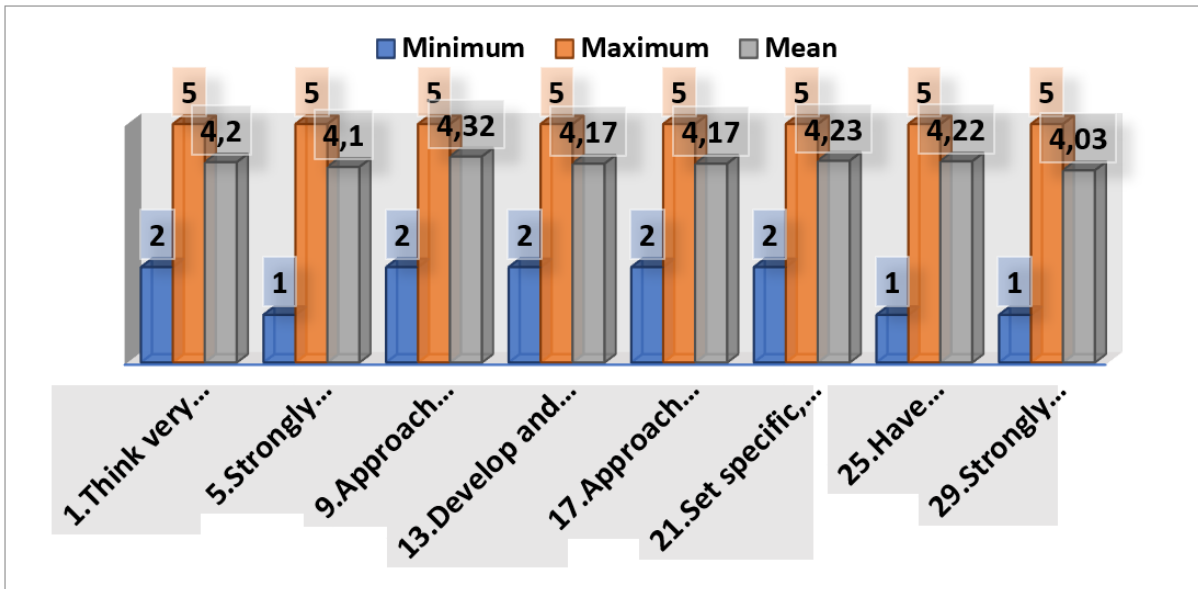
**Table 37: Means, S.D, and Range the Structural Frame**

<i>Structural Frame Items</i>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>SD</b>
9. Approach problems through logical analysis and careful thinking.	2	5	4,32	0,806
21. Set specific, measurable goals and hold people accountable for results.	2	5	4,23	0,809
25. Have extraordinary attention to detail.	1	5	4,22	0,832
1. Think very clearly and logically	2	5	4,2	0,824
13. Develop and implement clear, logical policies and procedures.	2	5	4,17	0,825
17. Approach problems with facts and logic.	2	5	4,17	0,785
5. Strongly emphasize careful planning and clear timelines.	1	5	4,1	1,006
29. Strongly believe in clear structure and a chain of command	1	5	4,03	1,042

**Source: SPSS calculations using data from the surveys**

These results show that all 8 structural frame questions scored a mean above 4. Question 9 “Approach problems through logical analysis and careful thinking” scored the highest mean by 4.32. Question 29 “Strongly believe in clear structure and a chain of command” scored the lowest mean by 4.03. This result reflects a high access and use of the structural frame by the Algerian leaders that they were chosen to get rated in this survey.

*Figure 44: Means and Range of the Structural Frame Items*



*Source: table 37*

*II.2.2.1.1.2. Human Resource Frame*

**Table 38: Means, S.D, and Range of the Human Resource Frame**

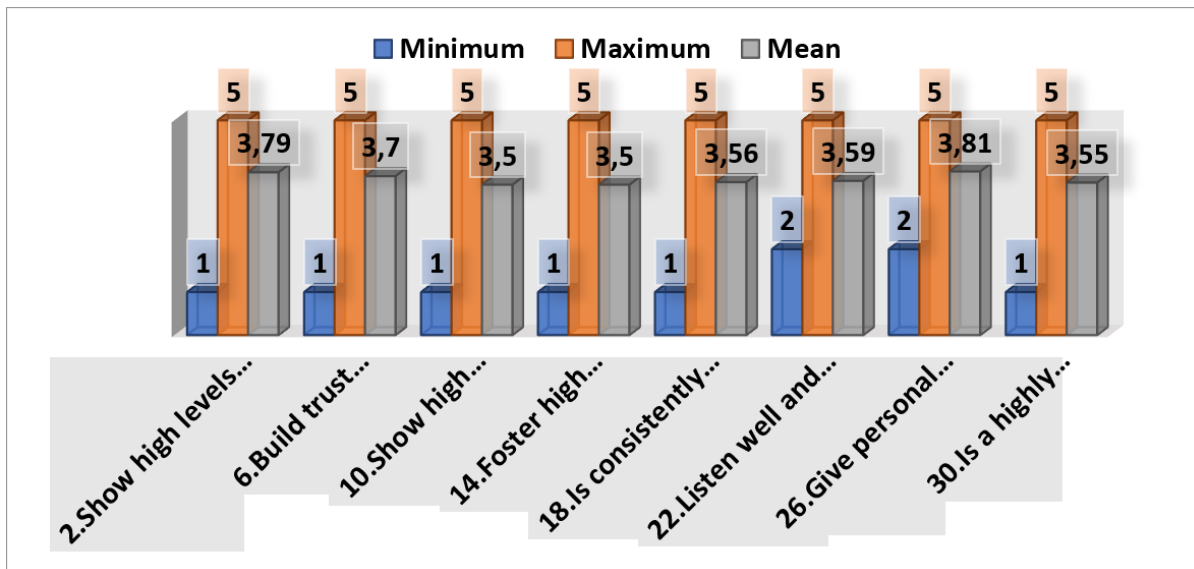
<i>Human Resource Frame Items</i>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>SD</b>
26. Give personal recognition for work well done.	2	5	3,81	0,871
1. Show high levels of support and concern for others	1	5	3,79	0,878
6. Build trust through open and collaborative relationships.	1	5	3,7	0,878
22. Listen well and am unusually receptive to other people's ideas and input.	2	5	3,59	0,944
18. Is consistently helpful and responsive to others	1	5	3,56	0,934
30. Is a highly participative manager.	1	5	3,55	0,899
10. Show high sensitivity and concern for others' needs and feelings.	1	5	3,5	0,852
14. Foster high levels of participation and involvement in decisions.	1	5	3,5	0,981

**Source: SPSS calculations using data from the surveys**

Results of the human resource frame items indicated that none of the eight human resource frame questions scored a mean equal or above 4. Question 26 “Give personal recognition for work well done” scored the highest mean by 3.81. question 14 “Foster high levels of participation and involvement in decisions” and Question 10 “Show high sensitivity and concern for others' needs and feelings” scored the lowest mean by 3.50. This result was disappointing because it reflects that the managers of Algerian higher education institutions don’t use the human resource frame to approach organizational issues.



*Figure 45: Means and Range of the Human Resource Frame Items*



Source: table 38

*II.2.2.1.1.3.Political Frame*

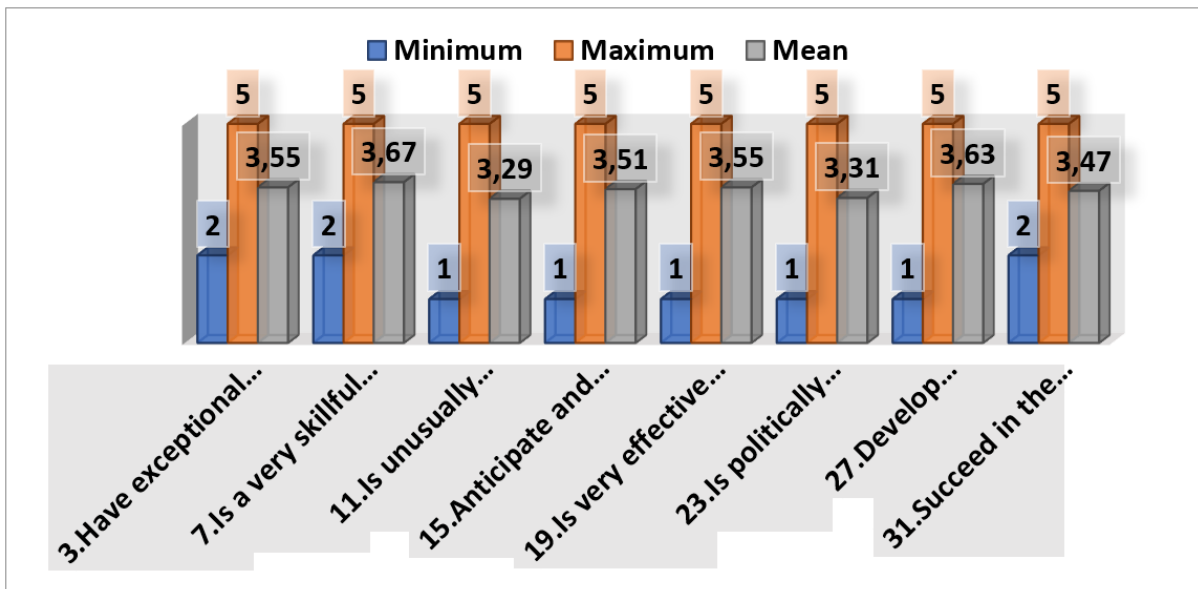
**Table 39: Means, S.D, and Range the Political Frame**

<i>Political Frame Items</i>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>SD</b>
7. Is a very skillful and shrewd negotiator.	2	5	3,67	0,897
27. Develop alliances to build a strong base of support	1	5	3,63	0,904
1. Have exceptional ability to mobilize people and resources to get things done.	2	5	3,55	0,798
19. Is very effective in getting support from people with influence and power.	1	5	3,55	0,899
15. Anticipate and deal adroitly with organizational conflict.	1	5	3,51	0,936
31. Succeed in the face of conflict and opposition.	2	5	3,47	0,958
23. Is politically very sensitive and skillful	1	5	3,31	1,048
11. Is unusually persuasive and influential.	1	5	3,29	0,969

**Source: SPSS calculations using data from the surveys**

These results show that none of 8 political frame questions scored a mean equal or above 4. Question 7 (Is a very skillful and shrewd negotiator) scored the highest mean by 3.67. Question 11 (Is unusually persuasive and influential) scored the lowest mean by 3.29. This result was as disappointing as the human resource frame, it shows that the political frame is not a dominant perspective for the Algerian managers to manage and lead their academic institutions.

*Figure 46: Means and Range of the Political Frame Items*



Source: table 39

*II.2.2.1.1.4. Symbolic Frame*

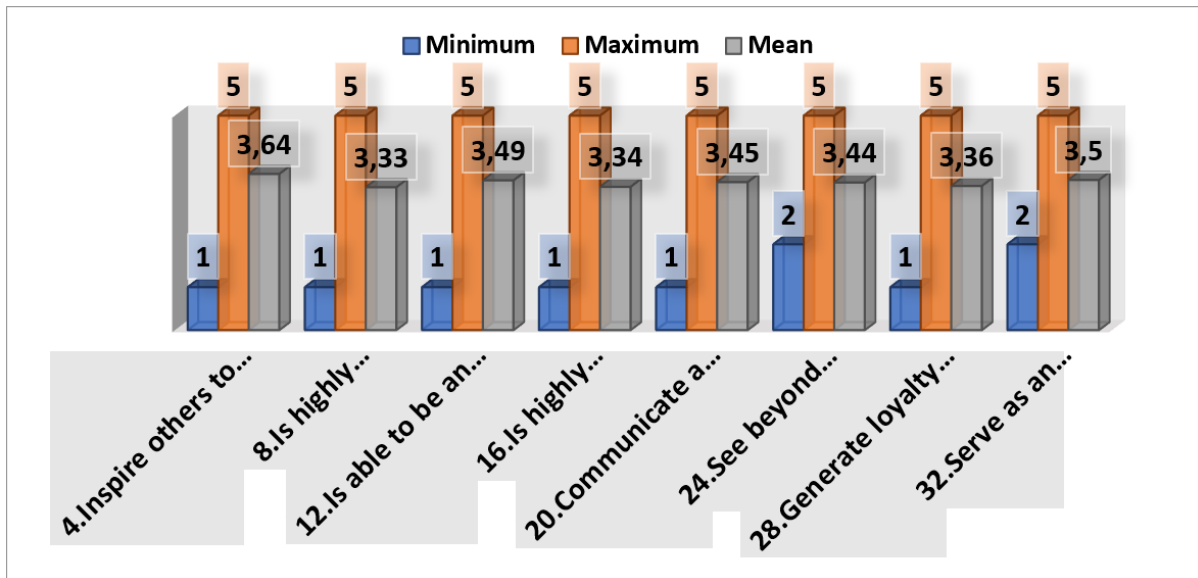
**Table 40: Means, S.D, and Range of the Symbolic Frame**

<b>Symbolic Frame Items</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>SD</b>
<b>4.</b> Inspire others to do their best.	1	5	3,64	1,125
<b>32.</b> Serve as an influential model of organizational aspirations and values.	2	5	3,5	0,839
<b>12.</b> Is able to be an inspiration to others.	1	5	3,49	0,925
<b>20.</b> Communicate a strong and challenging sense of vision and mission.	1	5	3,45	0,957
<b>24.</b> See beyond current realities to generate exciting new opportunities.	2	5	3,44	0,797
<b>28.</b> Generate loyalty and enthusiasm	1	5	3,36	1,046
<b>16.</b> Is highly imaginative and creative.	1	5	3,34	1,073
<b>8.</b> Is highly charismatic.	1	5	3,33	1,051

**Source: SPSS calculations using data from the surveys**

These results show that none of 8 symbolic frame questions scored a mean equal or above 4. Question 4 (Inspire others to do their best) scored the highest mean by 3.64. Question 8 (Am highly charismatic) scored the lowest mean by 3.33. This result was also disappointing as the human resource and the political frames, it reflects a poorly access and utilize of the symbolic frame by Algerians academic institutions.

**Figure 47: Means and Range of the Symbolic Frame Items**



Source: table 40

**II.2.2.1.1.5. All Frames**

**Table 41: Means and Standard Deviations for All Items by Frame**

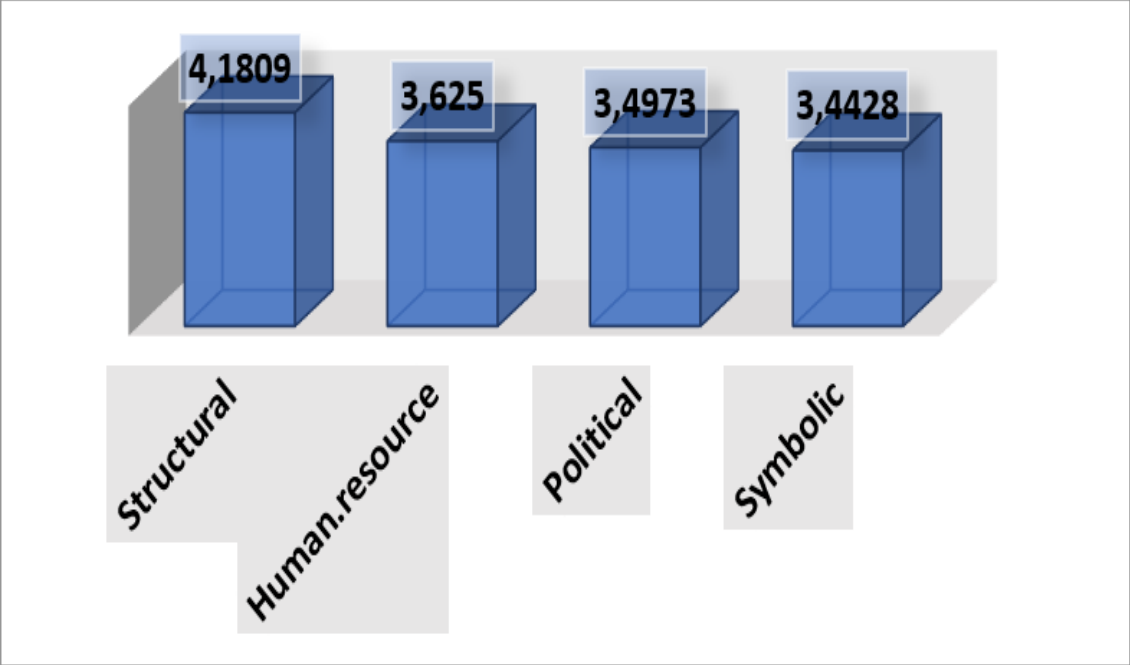
	Mean	Std. Deviation
<b>Structural</b>	4,1809	,58934
<b>Human resource</b>	3,6250	,61865
<b>Political</b>	3,4973	,51096
<b>Symbolic</b>	3,4428	,59333

Source: SPSS calculations using data from the surveys

The frame with the highest mean was the Structural frame with 4,1809. Other frames had means less than 4 which consider disappointing. This result shows

that the Structural frame is the most dominant among Algerian academic institutions, and the other frames are not used to approach organizational issues.

*Figure 48: Means for All Items by Frame*



Source: table 41

*II.2.2.1.2.Section two of the survey*

*II.2.2.1.2.1.Structural frame*

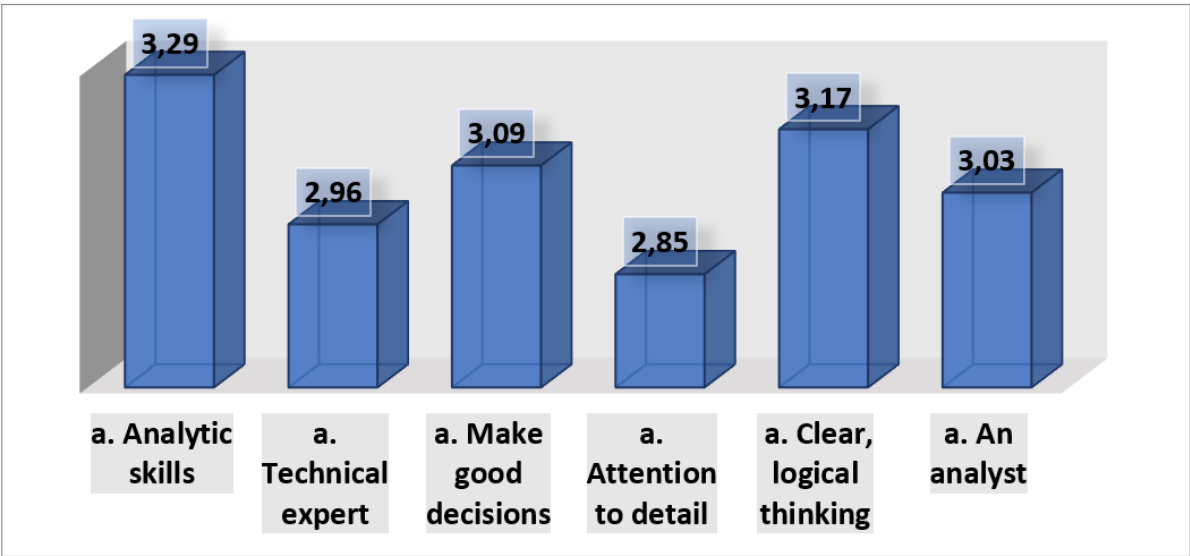
**Table 42: Means, S.D, and Range of the Structural Frame**

Structural frame		Range	Mean	SD
His strongest skills are:	Analytic skills	3	3,29	,946
The best way to describe him is:	Technical expert	3	2,96	1,126
What has helped him the most to be successful is his ability to:	Make good decisions	3	3,09	1,170
What people are most likely to notice about him is his:	Attention to detail	3	2,85	1,154
His most important leadership trait is:	Clear, logical thinking	3	3,17	1,012
He is best described as:	An analyst	3	3,03	1,010

**Source: SPSS calculations using data from the surveys**

Results of the structural frame items indicated that not all the six structural frame questions scored a mean above 3. Question 1 “His strongest skills are: Analytic skills” scored the highest mean by 3.29. Question 4 “What people are most likely to notice about him is his: Attention to detail” scored the lowest mean by 2.85. Although two questions didn’t reach a mean of 3 but still this result reflects a high access and use of the structural frame by the managers of the Algerian academic institutions.

*Figure 49: Mean of Structural Frame Items*



Source: table 42

*II.2.2.1.2.2.Human Resource frame*



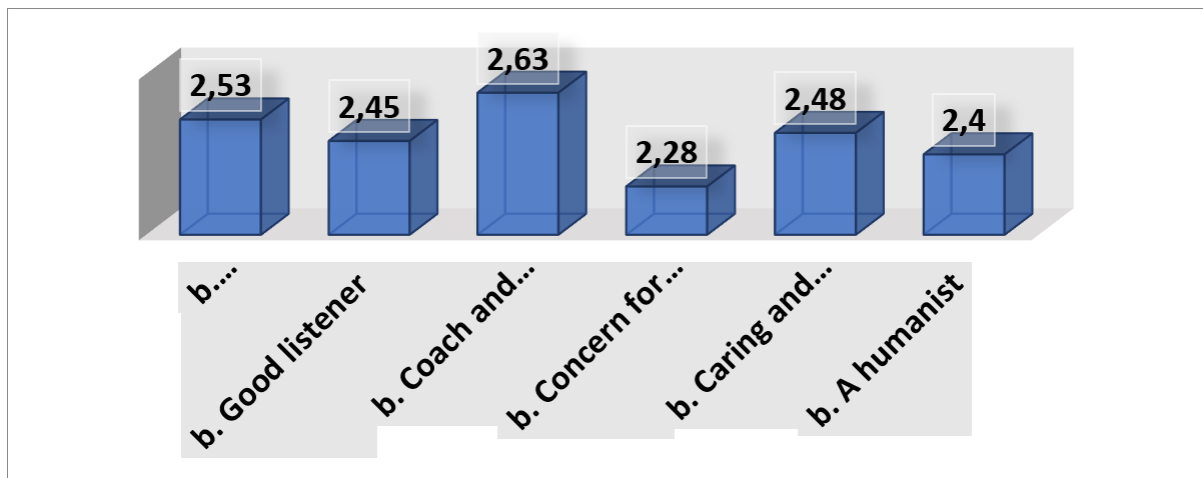
**Table 43: Means, S.D, and Range of the Human Resource Frame**

Human Resource frame		Range	Mean	SD
His strongest skills are:	Interpersonal skills	3	2,53	1,034
The best way to describe him is:	Good listener	3	2,45	1,023
What has helped him the most to be successful is his ability to:	Coach and develop people	3	2,63	,939
What people are most likely to notice about him is his:	Concern for people	3	2,28	,977
His most important leadership trait is:	Caring and support for others	3	2,48	,970
He is best described as:	A humanist	3	2,40	1,051

**Source: SPSS calculations using data from the surveys**

Results of the human resource frame items indicated that none of the six human resource frame questions scored a mean equal or above 3. Question 3 “What has helped him the most to be successful is his ability to: Coach and develop people” scored the highest mean by 2.63. Question 4 “What people are most likely to notice about him is his: Concern for people” scored the lowest mean by 2.28. This result was disappointing because it reflects that the managers of Algerian higher education institutions don’t use the human resource frame to approach organizational issues.

*Figure 50: Mean of Human Resource Frame Items*



Source: table 43

### *II.2.2.1.2.3. Political frame*

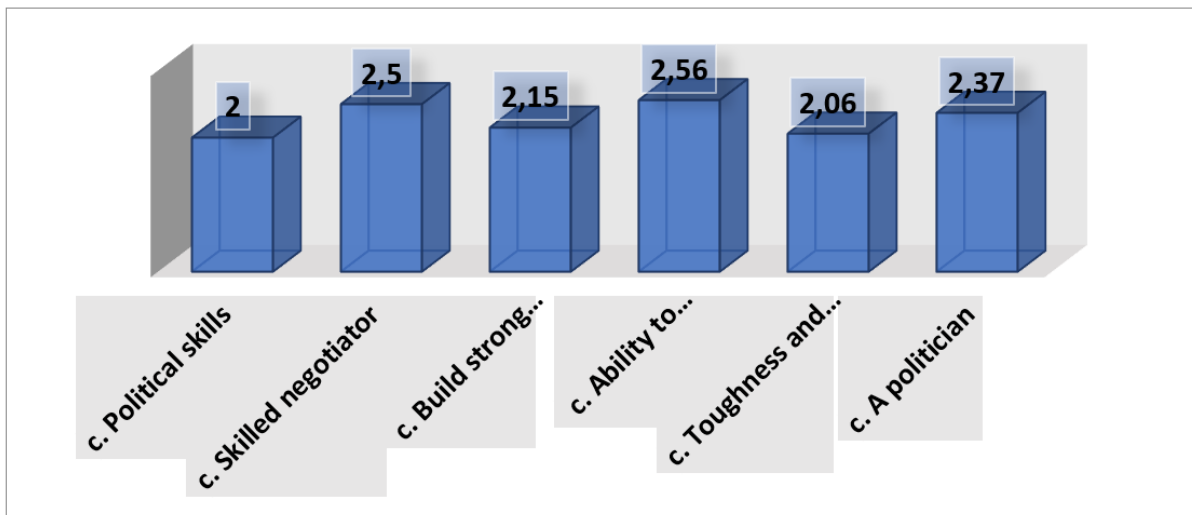
*Table 44: Means, S.D, and Range of the Political Frame*

Political frame		Range	Mean	SD
His strongest skills are:	Political skills	3	2,00	,973
The best way to describe him is:	Skilled negotiator	3	2,50	1,055
What has helped him the most to be successful is his ability to:	Build strong alliances and a power base	3	2,15	1,067
What people are most likely to notice about him is his:	Ability to succeed, in the face of conflict and opposition	3	2,56	1,093
His most important leadership trait is:	Toughness and aggressiveness	3	2,06	1,030
He is best described as:	A politician	3	2,37	1,145

**Source: SPSS calculations using data from the surveys**

Results of the political frame items indicated that none of the six political frame questions scored a mean equal or above 3. Question 4 “What people are most likely to notice about him is his: Ability to succeed, in the face of conflict and opposition” scored the highest mean by 2.56. Question 1 “His strongest skills are: Political skills” scored the lowest mean by 2.00. This result was as disappointing as the human resource frame, it shows that the political frame is not a dominant perspective for the Algerian managers to manage and lead their academic institutions.

**Figure 51: Means of Political Frame Items**



*Source: table 44*

**II.2.2.1.2.4. Symbolic frame**

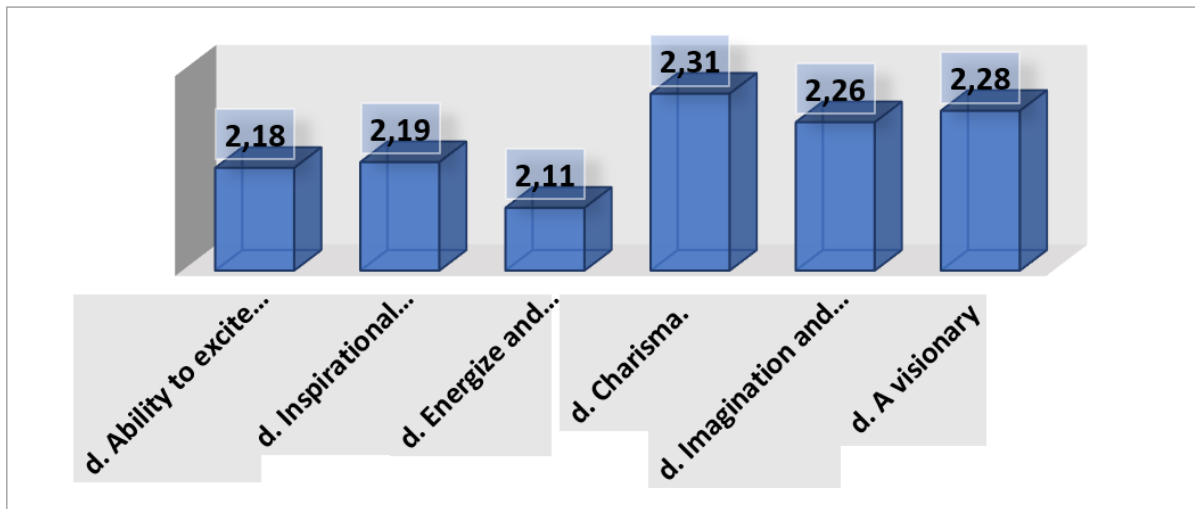
**Table 45: Means, S.D, and Range of the Symbolic Frame**

Symbolic frame		Range	Mean	SD
His strongest skills are:	Ability to excite and motivate	3	2,18	1,077
The best way to describe him is:	Inspirational leader	3	2,19	1,176
What has helped him the most to be successful is his ability to:	Energize and inspire others	3	2,11	1,000
What people are most likely to notice about him is his:	Charisma	3	2,31	1,164
His most important leadership trait is:	Imagination and creativity	3	2,26	1,145
He is best described as:	A visionary	3	2,28	1,092

**Source: SPSS calculations using data from the surveys**

Results of the Symbolic frame items indicated that none of the six Symbolic frame questions scored a mean equal or above 3. Question 4 “What people are most likely to notice about him is his: Charisma” scored the highest mean by 2.31. Question 3 “What has helped him the most to be successful is his ability to: Energize and inspire others” scored the lowest mean by 2.11. This result was also disappointing as the human resource and the political frames, it reflects a poorly access and utilize of the symbolic frame by Algerians academic institutions.

*Figure 52: Mean of Symbolic frame*



Source: table 45

#### *II.2.2.1.2.5.All Frames*

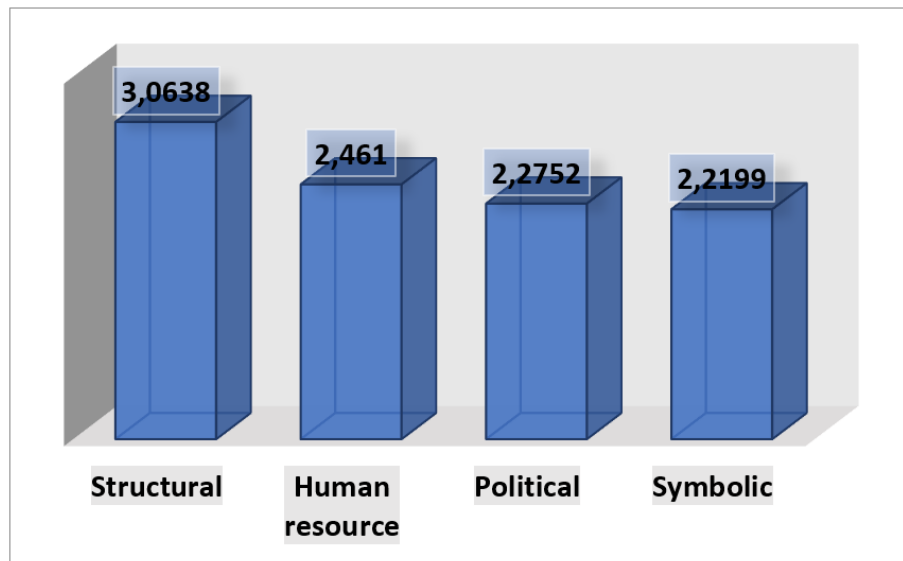
*Table 46: Means and Standard Deviations for All Items by Frame*

	Mean	Std. Deviation
<b>Structural</b>	3,0638	,76361
<b>Human resource</b>	2,4610	,55111
<b>Political</b>	2,2752	,55228
<b>Symbolic</b>	2,2199	,63369

Source: SPSS calculations using data from the surveys

The frame with the highest mean was the Structural frame with 3,0638. Other frames had means less than 3 which consider disappointing. This result shows that the Structural frame is the most dominant among Algerian academic institutions, and the other frames are not used to approach organizational issues.

*Figure 53: Means for All Items by Frame*



Source: table 46

#### ***II.2.2.2. Research Question two***

How many frames do the leaders and managers from Algerian higher education institutions use according to other colleagues?

The best way to answer this question is by computing a mean score for each respondent for each frame separately from section one of the survey. To consider a leader use and have access to a frame, his mean score for that frame must be at least 4. This condition was set by Bolman and Deal (1991) and was respected by all previous studies that used this survey.

##### ***II.2.2.2.1. Frames frequency***

*Table 47: frames frequency*

	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Percent</b>
<b>No Frames</b>	24	25,5	25,5
<b>One Frame</b>	39	41,5	67,0
<b>Two Frames</b>	11	11,7	78,7
<b>Three Frames</b>	10	10,6	89,4
<b>Four Frames</b>	10	10,6	100,0
<b>Total</b>	94	100,0	

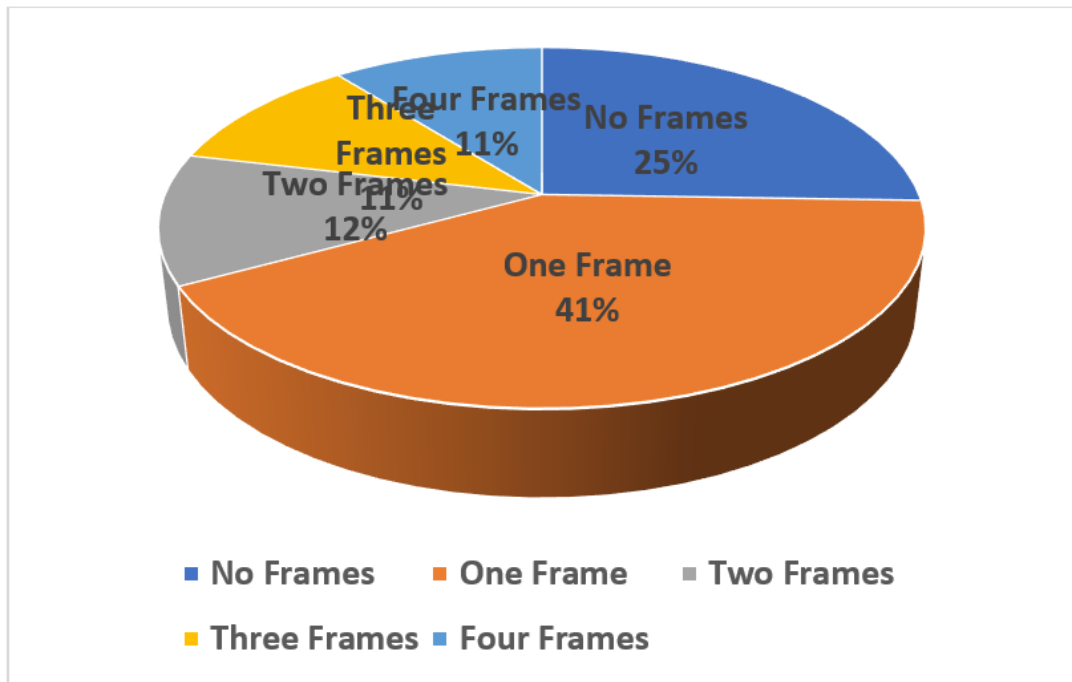
**Source: SPSS calculations using data from the surveys**

These results show that from the one hundred seven respondents:

- ten (10.6%) managers use and have access to all four frames.
- ten (10.6%) managers use and have access to three frames.
- eleven (11,7%) managers use and have access to two frames.
- thirty-nine (41,5%) managers use and have access to one frame
- twenty-four (25,5%) respondents use no frames.

Therefore, only forty (37.4%) indicated multiple frame use. These findings are unusual in previous studies, and they are disappointing according to the reframing theory by Bolman and Deal (1991).

*Figure 54: frame frequency*



Source: table 47

*II.2.2.2.2. Number of Frames Frequency*



**Table 48: Number of Frames Frequency**

<b>No frames</b>	<b>n=24</b>
<b>Single frame</b>	<b>n=39</b>
Structural	33
Human Resource	5
Political	0
Symbolic	1
<b>Paired-frames</b>	<b>n=11</b>
Structural	10
Human Resource	9
Political	0
Symbolic	3
<b>Multi-frames</b>	<b>n=10</b>
Structural	8
Human Resource	7
Political	7
Symbolic	8
<b>All frames</b>	<b>n=10</b>

**Source: SPSS calculations using data from the surveys**

These results show that Thirty-nine managers reported using only one frame. Of those thirty-nine managers,

- thirty-three use the structural frame.
- five use the human resource frame.
- one uses the symbolic frame.
- None one use of the political frame.

Eleven managers reported the use of two frames. Of those Eleven managers

- ten use the structural frame
- nine use the human resource frame.
- three use the symbolic frame time.
- None one use of the political frame.

Using three frames was reported by ten managers. Of those ten managers

- The structural and the symbolic frames were both used eight time.
- The human resource frame and the political frames were both used seven time.

### ***II.2.2.3. Research question three***

Are the leadership orientations reported by the leaders and managers from Algerian higher education institutions for their colleagues related to their reported effectiveness as managers and leaders?

To answer this question a descriptive analysis of section three of the survey that enquired the respondents to rate themselves or other for leadership and managerial effectiveness was done. The aim for this analysis is to know how often each response is recorded. Then compute a mean score for leadership effectiveness and managerial effectiveness. The next step is performing a bivariate correlation analysis between leadership and managerial effectiveness, and each of the four frames using the Pearson correlation coefficient.

#### ***II.2.2.3.1. Others-Reported Overall Rating of Effectiveness as a manager***

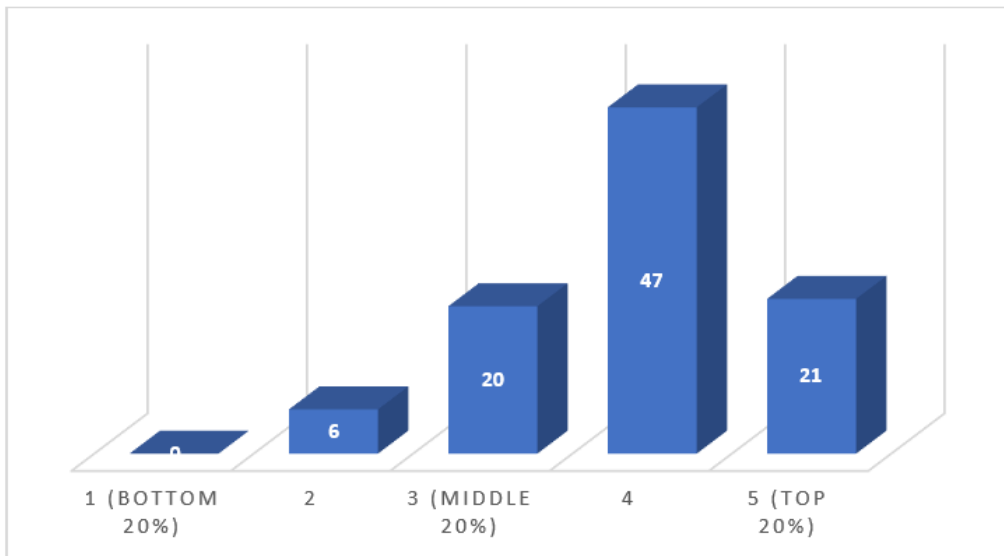
**Table 49: Others-Reported Overall Rating of Effectiveness as a manager**

	Frequency	Percent
1 (Bottom 20%)	0	0
2	6	6,4
3 (Middle 20%)	20	21,3
4	47	50,0
5 (Top 20%)	21	22,3
Total	94	100,0

**Source: SPSS calculations using data from the surveys**

Algerian managers rated their colleagues high for both managerial and leadership effectiveness. sixty-eight managers (72.3%) were rated above the middle 20% for managerial effectiveness, with 22.3% reported in the top 20%.

**Figure 55: Others-Reported Overall Rating of Effectiveness as a manager**



**Source: table 49**

### *II.2.2.3.2. Others-Reported Overall Rating of Effectiveness as a Leader*

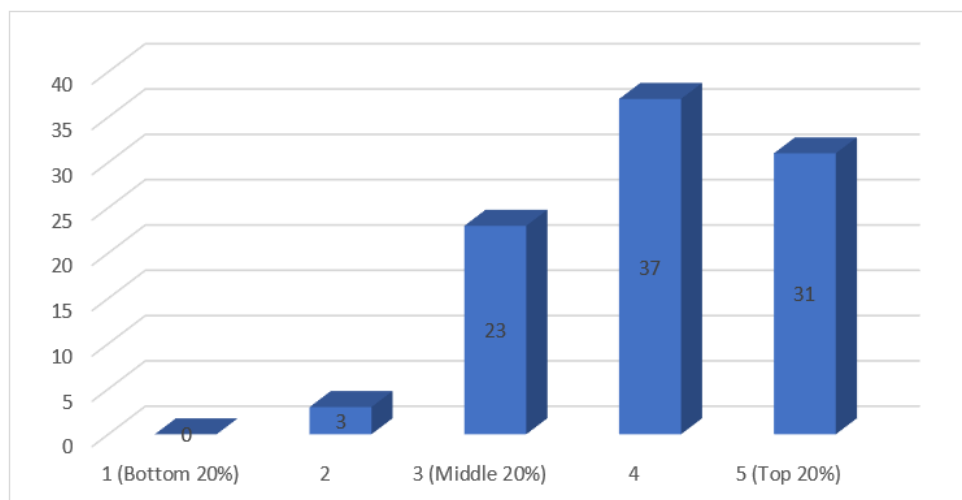
**Table 50: Others-Reported Overall Rating of Effectiveness as a Leader**

	Frequency	Percent
1 (Bottom 20%)	0	0
2	3	3,2
3 (Middle 20%)	23	24,5
4	37	39,4
5 (Top 20%)	31	33,0
Total	94	100,0

**Source: SPSS calculations using data from the surveys**

Algerian leaders also gave other colleagues high ratings for leadership effectiveness. Sixty-eight managers (72.3%) were also rated above the middle 20% with 33% reported in the top 20%.

**Figure 56: Others-Reported Overall Rating of Effectiveness as a Leader**



**Source: table 50**

a bivariate correlation analysis between leadership and managerial effectiveness, and each of the four frames using the Pearson correlation coefficient was performed.

***II.2.2.3.3. Pearson correlation between the others-perceived managerial ratings for each of the four frames***

***Table 51: Pearson correlation between the others-perceived managerial ratings for each of the four frames***

		<b>Structural</b>	<b>Human Resource</b>	<b>Political</b>	<b>Symbolic</b>
<b>Overall effectiveness as a manager</b>	<b>Pearson Correlation</b>	,424**	,349**	,320**	,178
	<b>Sig. (2-tailed)</b>	,000	,001	,002	,086
	<b>N</b>	94	94	94	94

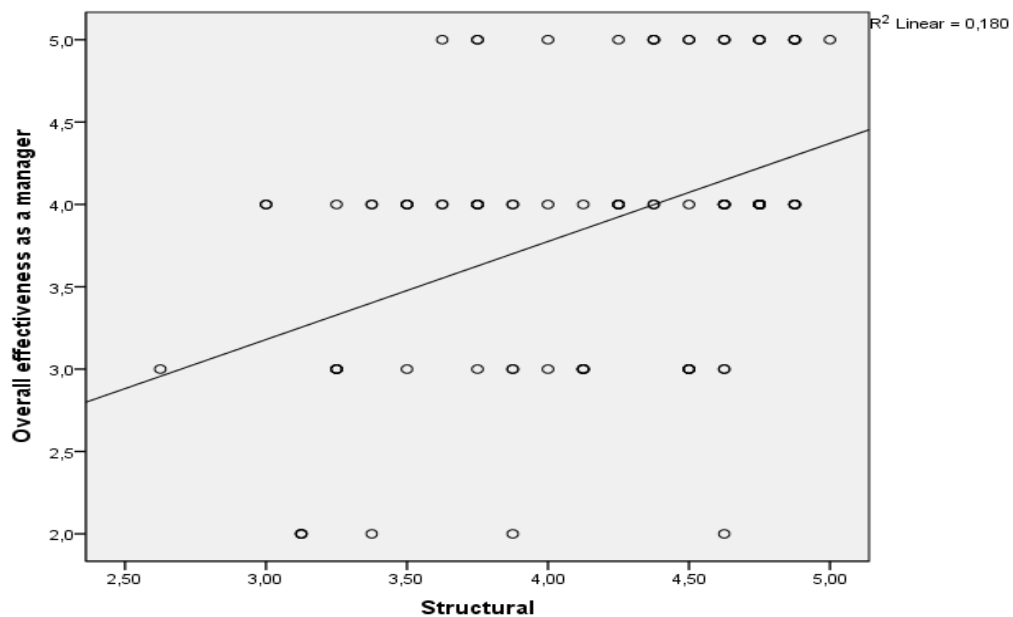
\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

**Source: SPSS calculations using data from the surveys**

***II.2.2.3.3.1. Pearson correlation between managerial effectiveness and structural frame***

**Figure 57: Pearson correlation between managerial effectiveness and structural frame**

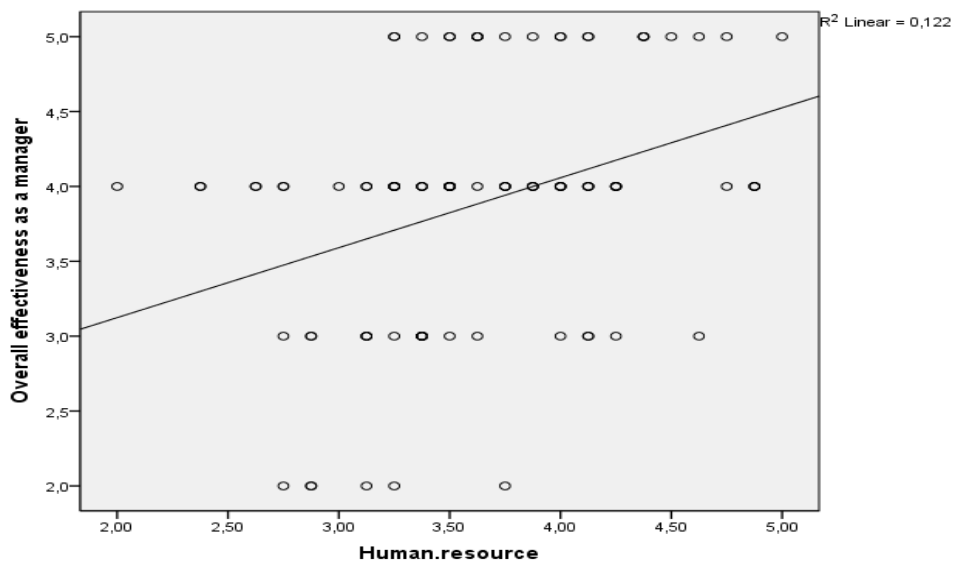


**Source: SPSS calculations using data from the surveys**

These results show that the use of the structural frame and others-perceived managerial effectiveness are significantly related. The correlation shows a moderate positive relationship:  $r(92) = 0.424, p < 0.01$ .

### ***II.2.2.3.3.2. Pearson correlation between managerial effectiveness and Human resource frame***

**Figure 58: Pearson correlation between managerial effectiveness and Human resource frame**

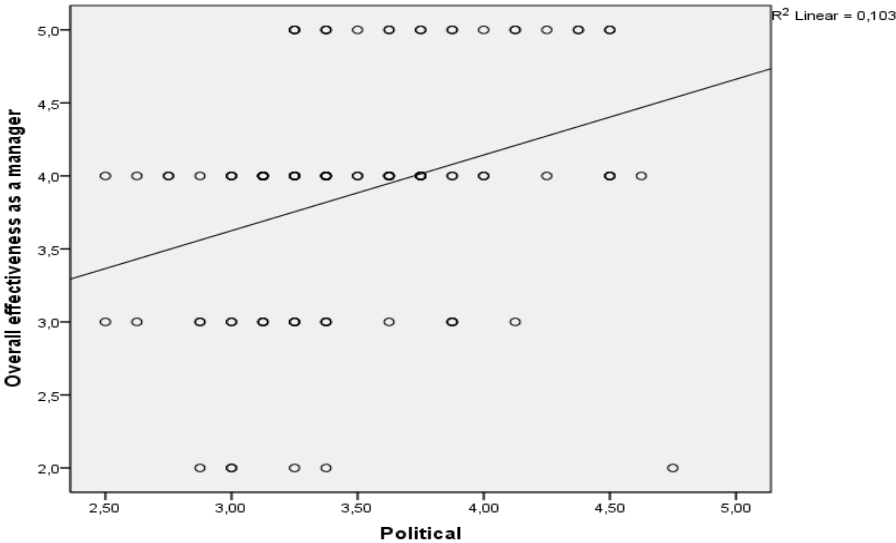


**Source: SPSS calculations using data from the surveys**

These results show that the use of the Human resource frame and others-perceived managerial effectiveness are significantly related. The correlation shows a moderate positive relationship:  $r(92) = 0.349, p < 0.01$ .

***II.2.2.3.3. Pearson correlation between managerial effectiveness and Political frame***

**Figure 59: Pearson correlation between managerial effectiveness and Political frame**



**Source: SPSS calculations using data from the surveys**

These results show that the use of the Political frame and others-perceived managerial effectiveness are significantly related. The correlation shows a moderate positive relationship:  $r(92) = 0.320, p < 0.01$ .

These results show that the use of the symbolic frame and others-perceived managerial effectiveness are not related.

**II.2.2.3.4. Pearson correlation between the others-perceived leadership ratings for each of the four frames**



**Table 52: Pearson correlation between the others-perceived leadership ratings for each of the four frames**

		Structural	Human Resource	Political	Symbolic
<b>Overall effectiveness as a leader</b>	<b>Pearson Correlation</b>	,390**	,214*	,266**	,193
	<b>Sig. (2-tailed)</b>	,000	,038	,010	,062
	<b>N</b>	94	94	94	94

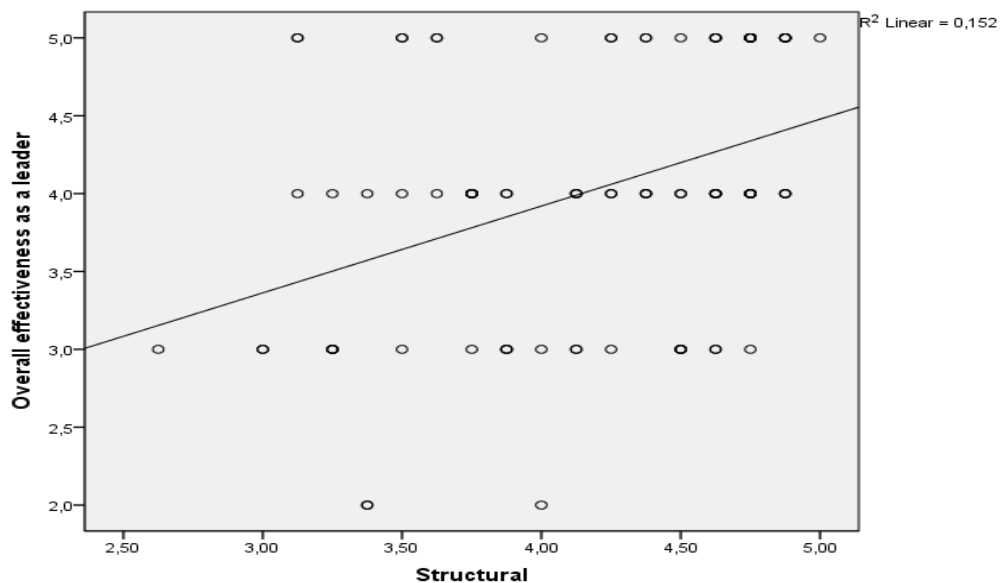
\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

**Source: SPSS calculations using data from the surveys**

**II.2.2.3.4.1. Pearson correlation between leadership effectiveness and Structural frame**

**Figure 60: Pearson correlation between leadership effectiveness and Structural frame**

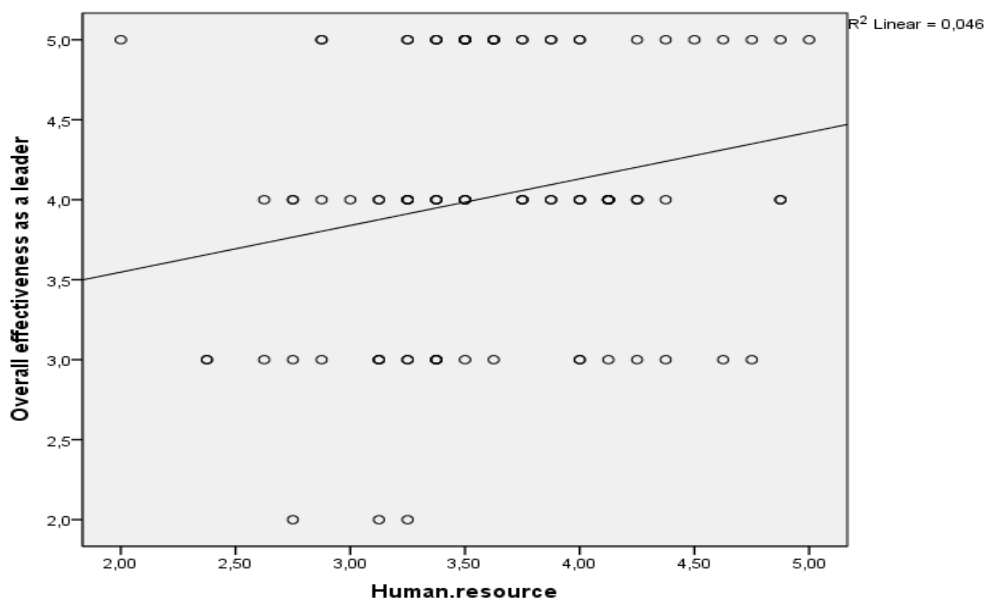


**Source: SPSS calculations using data from the surveys**

These results show that the use of the Structural frame and others-perceived leadership effectiveness are significantly related. The correlation shows a moderate positive relationship:  $r(92) = 0.390, p < 0.01$ .

***II.2.2.3.4.2. Pearson correlation between leadership effectiveness and Human resource frame***

***Figure 61: Pearson correlation between leadership effectiveness and Human resource frame***

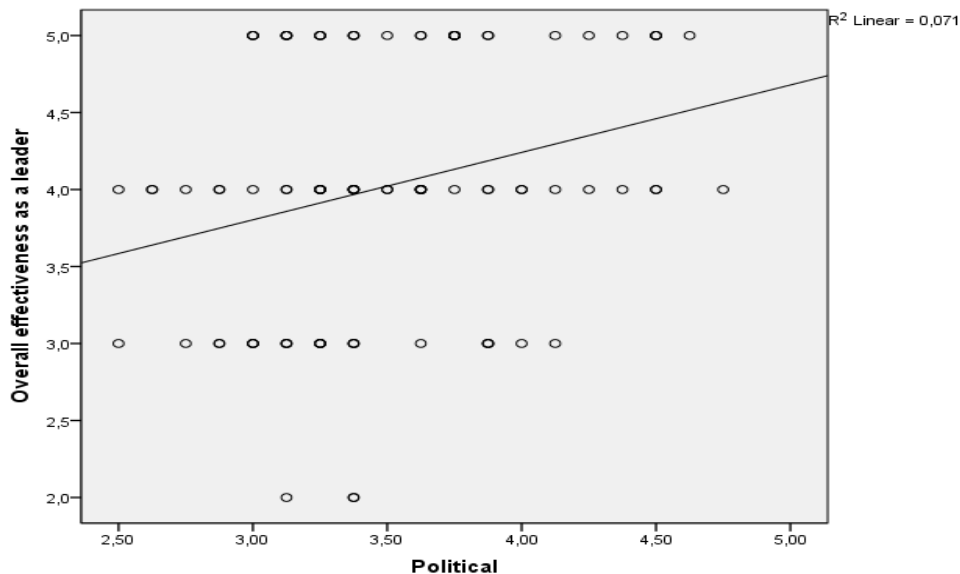


**Source: SPSS calculations using data from the surveys**

These results show that the use of the Human resource frame and others-perceived leadership effectiveness are significantly related. The correlation shows a moderate positive relationship:  $r(92) = 0.214, p < 0.05$ .

***II.2.2.3.4.3. Pearson correlation between leadership effectiveness and Political frame***

**Figure 62: Pearson correlation between leadership effectiveness and Political frame**



**Source: SPSS calculations using data from the surveys**

These results show that the use of the Political frame and others-perceived leadership effectiveness are significantly related. The correlation shows a moderate positive relationship:  $r(92) = 0.266, p < 0.01$ .

These results show that the use of the symbolic frame and others-perceived leadership effectiveness are not related.

### ***II.3. Discussions and limitations***

#### ***II.3.1. Discussions***

The use of the political frame may be confused with being political or playing politics. These terms are often viewed negatively. This why Question 23 (Am politically very sensitive and skillful) in the political frame had the lowest average rating, 3.13 in section one self-rating survey. Also, in section one others rating survey Question 11 (Is unusually persuasive and influential) scored the lowest mean by 3.29. In section two for both the self-rating and others-rating Question 1 (My (his) strongest skills are: Political skills) scored the lowest mean

by 1.80 and 2.00 for both the self-rating and others-rating respectively. The political frame, however, is not about choosing sides in a political battle. the political frame is about skillfully setting agendas, knowing where alliances and coalitions already exist through mapping the political terrain, making the best of conflict without always trying to resolve it, using negotiation and compromise effectively, and recognizing the numerous sources of power within an organization.

Bolman and Deal specified that the human resource frame stresses on the basic needs of individuals and the feelings of others. The primary method of response by managers who use this frame is fosters involvement and interpersonal.

Generally, managers who use this frame lead through the empowerment of others. the symbolic frame doesn't stress on objectively analyzing situations in stand focus on finding meaning and interpreting them. managers who use this frame focus on loyalty, enthusiasm, and a strong sense of vision. encouraging others to join a common purpose and leading by example are key aspects of transformational leaders. Transformational leadership and Leaders who use the symbolic frame are similar in nature. In Algeria there are a bureaucratic system dominating the public institutions for more than a half of a century. Algerian universities are part of this bureaucratic system. The human resource and the symbolic frames don't have the atmosphere to evolve among Algerian managers in a bureaucratic system. Therefore, findings from section one and section two in both self-rating and others-rating reflect the absence the human resource and the symbolic frames in managing Algerian universities.

Data obtained by the surveys revealed valuable details to resolve the issue of the number of frames used by the leaders and managers from Algerian higher education institutions. This result shows the domination of the structural frame, also shows a combination of use between the structural and human resource frame for Algerian higher education managers that have access to more than one

frame. This finding supports previous suggestions by Bolman and Deal, who reported that most educators rely primarily on the human resource or structural frames.

According to finding from this study 68.3 Percent of managers have only 6 years or less of experience as managers. The lack of experience may affect the access and utilize to all four frames. Also, for example the leaders of the faculty of medicine are doctors teaching in that faculty and the leaders of the faculty of engineering are engineers teaching in that faculty also. Those doctors and engineers didn't study management, so they are not professional managers, that's explain why they don't have access to the reframing theory.

13 respondents of the self-rating survey and 24 respondents of the others-rating survey indicated no frame use at 4.0 (often) or above that level, it does not imply dominant frame for those managers. This result is rare in prior studies. It is conceivable that these managers may have misread some of the survey questions, causing them to misrepresent themselves and others. also, possible that they may have been unnecessarily critical of themselves and others. Bolman and deal (1991) required at least a 4.0 mean score for section one of the survey and 3.0 for section two for the frame to be counted , those manager all had mean scores between 4.0 (often used) and 3.0 (occasional use) for each of the four frames. This indicates that although no frame has been used regularly, at least often all four frames have been used by these managers.

The Algerian higher education system is a very centralize, the leaders and the managers of our universities have only a little control on the managerial process. The managers don't have to negotiate the salaries of teachers and workers in the universities because the salaries are fixated by the government. They don't also control amount of student tuitions because education is free in Algeria. They don't have to look for finance resources because dependences are provided by the ministry of higher education. So, the leaders don't have that many

managerial tasks, therefore the use of reframing theory is not a real necessity in the current university situation. This why most of them don't have access to all four frames.

The following recommendations are made based on the results of this study:

multi-frame perspective should be a crucial tool by the ministry of higher education in their mentoring of probable managers. Leadership programs should be offered by the Ministry of higher education for current or future managers to develop, appreciate, and integrate a multi-frame perspective to making decisions.

### ***II.3.2.Limitations***

The limitations of this study are a result of the design. According to the Ministry of Higher Education and Scientific Research the Algerian university network comprises one hundred and six (106) higher education institutions spread over forty-eight wilayas (48), covering the entire national territory. This network consists of fifty (50) universities, thirteen (13) university centers, twenty (20) national schools and ten (10) higher schools, Eleven (11) higher teacher training colleges and two (02) annexes<sup>203</sup>. The size of the sample chosen for this study (12 institutions) is not large enough to generalize the results all over Algerian academic institutions. Also, in those 12 institutions there are more than 300 leaders and managers but only 139 were contacted because of the lack of contact information, and most leaders in our universities don't have the sense of collaboration in scientific activities such as participating in surveys and they lack the professionalism of returning surveys in short periods of time. Therefore, we faced a lot of difficulties collecting data.

It is assumed that respondents took the time to read the questions carefully when filling out the survey. A Small portion of the collected surveys signposted

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<sup>203</sup> <https://www.mesrs.dz/universites>

otherwise. It is also assumed that the managers fulfill the surveys by themselves. The surveys that I suspected were not fulfill by the managers themselves were eliminated.

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# *Appendices*

## Appendix 1

Your name: \_\_\_\_\_

### LEADERSHIP ORIENTATIONS (SELF)<sup>207</sup>

This questionnaire asks you to describe your leadership and management style.

#### I. Behaviors

You are asked to indicate *how often* each of the items below is true of you.

Please use the following scale in answering each item.

1	2	3	4	5
Never		Sometimes		Always
	Occasionally		Often	

So, you would answer '1' for an item that is never true of you, '2' for one that is occasionally true, '3' for one that is sometimes true of you, and so on.

**Be discriminating!** Your results will be more helpful if you think about each item and distinguish the things that you really do all the time from the things that you do seldom or never.

1. \_\_\_\_\_ *Think very clearly and logically.*
2. \_\_\_\_\_ *Show high levels of support and concern for others.*
3. \_\_\_\_\_ *Have exceptional ability to mobilize people and resources to get things done.*
4. \_\_\_\_\_ *Inspire others to do their best.*
5. \_\_\_\_\_ *Strongly emphasize careful planning and clear time lines.*
6. \_\_\_\_\_ *Build trust through open and collaborative relationships.*
7. \_\_\_\_\_ *Am a very skillful and shrewd negotiator.*
8. \_\_\_\_\_ *Am highly charismatic.*
9. \_\_\_\_\_ *Approach problems through logical analysis and careful thinking.*

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<sup>207</sup>Copyright 1990, Lee G. Bolman and Terrence E. Deal. All rights reserved.

10. \_\_\_\_\_ *Show high sensitivity and concern for others' needs and feelings.*
11. \_\_\_\_\_ *Am unusually persuasive and influential.*
12. \_\_\_\_\_ *Am able to be an inspiration to others.*
13. \_\_\_\_\_ *Develop and implement clear, logical policies and procedures.*
14. \_\_\_\_\_ *Foster high levels of participation and involvement in decisions.*
15. \_\_\_\_\_ *Anticipate and deal adroitly with organizational conflict.*
16. \_\_\_\_\_ *Am highly imaginative and creative.*
17. \_\_\_\_\_ *Approach problems with facts and logic.*
18. \_\_\_\_\_ *Am consistently helpful and responsive to others.*
19. \_\_\_\_\_ *Am very effective in getting support from people with influence and power.*
20. \_\_\_\_\_ *Communicate a strong and challenging sense of vision and mission.*
21. \_\_\_\_\_ *Set specific, measurable goals and hold people accountable for results.*
22. \_\_\_\_\_ *Listen well and am unusually receptive to other people's ideas and input.*
23. \_\_\_\_\_ *Am politically very sensitive and skillful.*
24. \_\_\_\_\_ *See beyond current realities to generate exciting new opportunities.*
25. \_\_\_\_\_ *Have extraordinary attention to detail.*
26. \_\_\_\_\_ *Give personal recognition for work well done.*
27. \_\_\_\_\_ *Develop alliances to build a strong base of support.*
28. \_\_\_\_\_ *Generate loyalty and enthusiasm.*
29. \_\_\_\_\_ *Strongly believe in clear structure and a chain of command.*
30. \_\_\_\_\_ *Am a highly participative manager.*
31. \_\_\_\_\_ *Succeed in the face of conflict and opposition.*
32. \_\_\_\_\_ *Serve as an influential model of organizational aspirations and values.*

## II. Leadership Style

This section asks you to describe your leadership style. For each item, give the number "4" to the phrase that best describes you, "3" to the item that is next best, and on down to "1" for the item that is least like you.

1. My strongest skills are:

- \_\_\_\_\_ a. *Analytic skills*
- \_\_\_\_\_ b. *Interpersonal skills*
- \_\_\_\_\_ c. *Political skills*



Bottom 20%

Middle 20%

Top 20%

2. Overall effectiveness as a leader.

1

2

3

4

5

Bottom 20%

Middle 20%

Top 20%

#### IV. Background Information

1. Are you:  Male  Female

2. How many years have you been in your current job? \_\_\_\_\_

3. How many total years of experience do you have as a manager? \_\_\_\_\_

Form O-4

Name of person described: \_\_\_\_\_

Group code (if any): \_\_\_\_\_

#### LEADERSHIP ORIENTATIONS (OTHER)<sup>208</sup>

This questionnaire asks you to describe the person that you are rating in terms of leadership and management style.

##### I. Leader Behaviors

You are asked to indicate *how often* each item is true of the person that you are rating.

Please use the following scale in answering each item.

1

2

3

4

5

Never

Sometimes

Always

Occasionally

Often

So, you would answer '1' for an item that is never true of the person you are describing, '2' for one that is occasionally true, '3' for one that is sometimes true, and so on.

<sup>208</sup> 1990, Lee G. Bolman and Terrence E. Deal

**Be discriminating!** The results will be more helpful to the ratee if you think about each item and distinguish the things that the ratee really does all the time from the things that s/he does seldom or never.

1. \_\_\_\_\_ *Thinks very clearly and logically.*
2. \_\_\_\_\_ *Shows high levels of support and concern for others.*
3. \_\_\_\_\_ *Shows exceptional ability to mobilize people and resources to get things done.*
4. \_\_\_\_\_ *Inspires others to do their best.*
5. \_\_\_\_\_ *Strongly emphasizes careful planning and clear time lines.*
6. \_\_\_\_\_ *Builds trust through open and collaborative relationships.*
7. \_\_\_\_\_ *Is a very skillful and shrewd negotiator.*
8. \_\_\_\_\_ *Is highly charismatic.*
9. \_\_\_\_\_ *Approaches problems through logical analysis and careful thinking.*
10. \_\_\_\_\_ *Shows high sensitivity and concern for others' needs and feelings.*
11. \_\_\_\_\_ *Is unusually persuasive and influential.*
12. \_\_\_\_\_ *Is an inspiration to others.*
13. \_\_\_\_\_ *Develops and implements clear, logical policies and procedures.*
14. \_\_\_\_\_ *Fosters high levels of participation and involvement in decisions.*
15. \_\_\_\_\_ *Anticipates and deals adroitly with organizational conflict.*
16. \_\_\_\_\_ *Is highly imaginative and creative.*
17. \_\_\_\_\_ *Approaches problems with facts and logic.*
18. \_\_\_\_\_ *Is consistently helpful and responsive to others.*
19. \_\_\_\_\_ *Is very effective in getting support from people with influence and power.*
20. \_\_\_\_\_ *Communicates a strong and challenging vision and sense of mission.*
21. \_\_\_\_\_ *Sets specific, measurable goals and holds people accountable for results.*
22. \_\_\_\_\_ *Listens well and is unusually receptive to other people's ideas and input.*
23. \_\_\_\_\_ *Is politically very sensitive and skillful.*
24. \_\_\_\_\_ *Sees beyond current realities to create exciting new opportunities.*
25. \_\_\_\_\_ *Has extraordinary attention to detail.*
26. \_\_\_\_\_ *Gives personal recognition for work well done.*
27. \_\_\_\_\_ *Develops alliances to build a strong base of support.*
28. \_\_\_\_\_ *Generates loyalty and enthusiasm.*



29. \_\_\_\_\_ *Strongly believes in clear structure and a chain of command.*
30. \_\_\_\_\_ *Is a highly participative manager.*
31. \_\_\_\_\_ *Succeeds in the face of conflict and opposition.*
32. \_\_\_\_\_ *Serves as an influential model of organizational aspirations and values.*

### 1. Leadership Style

This section asks you to describe the leadership style of the person that you are rating. For each item, give the number "4" to the phrase that best describes this person, "3" to the item that is next best, and on down to "1" for the item that is least like this person.

1. The individual's strongest skills are:

- \_\_\_\_\_ a. *Analytic skills*
- \_\_\_\_\_ b. *Interpersonal skills*
- \_\_\_\_\_ c. *Political skills*
- \_\_\_\_\_ d. *Ability to excite and motivate*

2. The best way to describe this person is:

- \_\_\_\_\_ a. *Technical expert*
- \_\_\_\_\_ b. *Good listener*
- \_\_\_\_\_ c. *Skilled negotiator*
- \_\_\_\_\_ d. *Inspirational leader*

3. What this individual does best is:

- \_\_\_\_\_ a. *Make good decisions*
- \_\_\_\_\_ b. *Coach and develop people*
- \_\_\_\_\_ c. *Build strong alliances and a power base*
- \_\_\_\_\_ d. *Energize and inspire others*

4. What people are most likely to notice about this person is:

- \_\_\_\_\_ a. *Attention to detail*
- \_\_\_\_\_ b. *Concern for people*
- \_\_\_\_\_ c. *Ability to succeed, in the face of conflict and opposition*
- \_\_\_\_\_ d. *Charisma.*

5. This individual's most important leadership trait is:

- \_\_\_\_\_ a. *Clear, logical thinking*
- \_\_\_\_\_ b. *Caring and support for others*

- c. *Toughness and aggressiveness*
- d. *Imagination and creativity*

6. This person is best described as:

- a. *An analyst*
- b. *A humanist*
- c. *A politician*
- d. *A visionary*

### III. Overall rating

Compared to other individuals that you have known with comparable levels of experience and responsibility, how would you rate this person on:

1. Overall effectiveness as a **manager**.

1	2	3	4	5
Bottom 20%	Middle 20%		Top 20%	

2. Overall effectiveness as a **leader**.

1	2	3	4	5
Bottom 20%	Middle 20%		Top 20%	

## *Appendix 2*

## AGE GROUP

Share of total population (range of country values)<sup>1</sup>

COMPONENT (Subindex weighting)	INDICATOR	0-14 (13%–48%)	15-24 (9%–22%)	25-54 (26%–70%)	55-64 (3%–14%)	65+ (1%–27%)
<b>Capacity</b> (25% of total Index score)	Literacy and numeracy					
	Primary education attainment rate					
	Secondary education attainment rate					
	Tertiary education attainment rate					
<b>Deployment</b> (25% of total Index score)	Labour force participation rate					
	Employment gender gap					
	Unemployment rate					
	Underemployment rate					
<b>Development</b> (25% of total Index score)	Primary education enrolment rate					
	Quality of primary schools					
	Secondary education enrolment rate					
	Secondary enrolment gender gap					
	Vocational education enrolment rate					
	Tertiary education enrolment rate					
	Skill diversity of graduates					
Quality of education system						
Extent of staff training						
<b>Know-how</b> (25% of total Index score)	High-skilled employment share					
	Medium-skilled employment share					
	Economic complexity					
	Availability of skilled employees					

## Appendix 3

Bonjour Monsieur/Madame,

Nous effectuons un travail de recherche portant sur le leadership en vue de la préparation d'un doctorat. Nous vous prions de bien vouloir répondre à ce questionnaire concernant votre style de leadership. Nous vous assurons que les réponses à ce questionnaire seront utilisées uniquement à des fins de recherche afin de finaliser la partie empirique de notre thèse.

Merci de bien vouloir nous consacrer un peu de votre temps afin de répondre à ce questionnaire.

### I. Comportements

Prière de pondérer les réponses aux questions de ce questionnaire en fonction de vos appréciations en utilisant l'échelle (1-5) afin de pondérer et indiquer «1» pour une situation qui n'est **jamais** vrai, «2» pour une situation qui est **Occasionnellement** vrai, «3» pour une situation qui est **parfois** vrai, «4» pour une situation qui vous arrive **souvent** et «5» pour celle qui se répète **toujours**.

Nous vous prions d'être exacte pour permettre aux résultats d'être précise et plus utiles.

N	Les questions	1 Jamais	2 Occasio nnelleme nt	3 Parfo is	4 Souve nt	5 Toujour s
1	Je pense très clairement et logiquement.					
2	Je montre un niveau élevé de soutien et de préoccupation pour les autres.					
3	J'ai une capacité exceptionnelle à mobiliser les personnes pour faire avancer les choses.					
4	J'inspire les autres à faire de leur mieux.					
5	J'insiste fortement sur une planification minutieuse.					

6	Je bâtis la confiance grâce à des relations ouvertes et collaboratives.					
7	Je suis un négociateur très habile.					
8	Je suis très charismatique.					
9	J'aborde les problèmes par une analyse logique et une réflexion approfondie.					
10	Je fais preuve d'une grande sensibilité et d'une grande préoccupation pour les besoins et les sentiments des autres.					
11	Je suis exceptionnellement persuasif et influent.					
12	Je peux être une source d'inspiration pour les autres.					
13	Je développe et implémente des politiques et procédures claires et logiques					
14	Je favorise de hauts niveaux de participation et d'implication dans les décisions.					
15	J'anticipe et gère habilement les conflits organisationnels.					
16	Je suis très imaginatif et créatif.					
17	J'aborde les problèmes avec des faits et de la logique.					
18	Je suis toujours utile et sensible aux autres.					
19	Je suis très efficace pour obtenir le soutien de personnes influentes et puissantes.					
20	Je communique un sens fort et stimulant de la vision.					
21	Je fixe des objectifs spécifiques et mesurables et tiens les gens responsables des résultats.					

22	J'écoute bien et suis exceptionnellement réceptif aux idées et à la contribution des autres.					
23	Je suis politiquement très sensible et habile.					
24	Je vois au-delà des réalités actuelles pour générer de nouvelles opportunités.					
25	J'ai une attention extraordinaire aux détails.					
26	Je reconnais personnellement le travail bien fait.					
27	Je développe des alliances pour construire une base solide de soutien.					
28	Je génère de la loyauté et de l'enthousiasme.					
29	Je crois fermement en une structure claire et une chaîne de commandement.					
30	Je suis un manager très participatif.					
31	Je réussis face aux conflits et à l'opposition.					
32	Je suis un modèle influent d'aspirations et de valeurs organisationnelles.					

## **II. Style de leadership**

Cette section vous demande de décrire votre style de leadership. Pour chaque objet, donnez le numéro "4" à la phrase qui vous décrit le mieux, "3" à l'article qui vous convient le mieux et jusqu'à "1" pour l'article qui vous ressemble le moins. **(Classez de 4 jusqu'à 1)**

<b>1. Mes compétences les plus fortes sont :</b>			<b>(Classez de 4 jusqu'à 1)</b>
<b>A</b>	Compétences analytiques		
<b>B</b>	Compétences interpersonnelles		
<b>C</b>	Compétences politiques		
<b>D</b>	Capacité à exciter et à motiver		
<b>2. La meilleure façon de me décrire est:</b>			

<b>A</b>	Expert technique		<b>(Classez de 4 jusqu'à 1)</b>
<b>B</b>	Bon auditeur		
<b>C</b>	Négociateur qualifié		
<b>D</b>	Leader inspirant		
<b>3. Ce qui m'a le plus aidé à réussir, c'est ma capacité à:</b>			
<b>A</b>	Prendre de bonnes décisions		<b>(Classez de 4 jusqu'à 1)</b>
<b>B</b>	Coacher et développer des personnes		
<b>C</b>	Construire des alliances solides et une base de pouvoir		
<b>D</b>	Dynamiser et inspirer les autres		
<b>4. Ce que les gens remarquent à propos de ma personne concernant</b>			
<b>A</b>	Mon attention au détail		<b>(Classez de 4 jusqu'à 1)</b>
<b>B</b>	Ma-préoccupation pour les gens		
<b>C</b>	Ma capacité de réussir face aux conflits et à l'opposition		
<b>D</b>	Mon charisme.		
<b>5. Mon trait de leadership le plus important est:</b>			
<b>A</b>	Ma Clarté et logique		<b>(Classez de 4 jusqu'à 1)</b>
<b>B</b>	De Prendre soin des autres et les soutenir		
<b>C</b>	La Robustesse et l'agressivité		
<b>D</b>	L'Imagination et la créativité		
<b>6. Je suis mieux décrit comme:</b>			
<b>A</b>	Un analyste		<b>(Classez de 4 jusqu'à 1)</b>
<b>B</b>	Un humaniste		
<b>C</b>	Un politicien		

D	Un visionnaire		
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### III. Note globale

Par rapport à d'autres personnes que vous avez connues avec des niveaux d'expérience et de responsabilité comparables, comment vous classeriez-vous sur une **échelle** de **1** à **5**:

<b>1. Efficacité globale en tant que gestionnaire.</b>	1	2	3	4	5
<b>2. Efficacité globale en tant que leader.</b>	1	2	3	4	5

### IV. Informations personnels

1. Êtes-vous: \_\_\_ Homme \_\_\_ Femme
2. Combien d'années vous avez été dans votre emploi actuel? \_\_\_\_\_
3. Combien d'années d'expérience avez-vous en tant que manager? \_\_\_\_\_

### **ORIENTATIONS DE LEADERSHIP (AUTRE)**

Dans cette partie, vous répondez aux mêmes questions mais à **quelqu'un d'autre** de votre établissement (supérieur ou subordonné) sans mentionner son nom

#### I. Comportements du leader

Prière de pondérer les réponses aux questions de ce questionnaire en fonction de vos appréciations en utilisant l'échelle **(1-5)** afin de pondérer et indiquer «**1**» pour une situation qui n'est **jamais** vrai, «**2**» pour une situation qui est **Occasionnellement** vrai, «**3**» pour une situation qui est **parfois** vrai, «**4**» pour une situation qui vous arrive **souvent** et «**5**» pour celle qui se répète **toujours**.

Nous vous prions d'être exacte pour permettre aux résultats d'être précise et plus utiles.

N	Les questions	1 Jamais	2 Occasionnellement	3 Parfois	4 souvent	5 Toujours
1	il pense très clairement et logiquement.					
2	il fait preuve de beaucoup de soutien et d'intérêt pour les autres.					



<b>3</b>	il fait preuve d'une capacité exceptionnelle à mobiliser des personnes pour faire avancer les choses.					
<b>4</b>	il inspire les autres à faire de leur mieux.					
<b>5</b>	il insiste fortement sur une planification minutieuse.					
<b>6</b>	il construit la confiance grâce à des relations ouvertes et collaboratives.					
<b>7</b>	il est un négociateur très habile.					
<b>8</b>	il est très charismatique.					
<b>9</b>	il aborde les problèmes par une analyse logique et une réflexion approfondie.					
<b>10</b>	il fait preuve d'une grande sensibilité et se préoccupe des besoins et des sentiments des autres.					
<b>11</b>	il est exceptionnellement persuasif et influent.					
<b>12</b>	il est une inspiration pour les autres.					
<b>13</b>	il développe et met en œuvre des politiques et procédures claires et logiques.					
<b>14</b>	il encourage de hauts niveaux de participation et d'implication dans les décisions.					
<b>15</b>	il anticipe et gère adroitement les conflits organisationnels.					
<b>16</b>	il est très imaginatif et créatif.					
<b>17</b>	il aborde les problèmes avec des faits et de la logique.					
<b>18</b>	il est toujours utile et sensible aux autres.					
<b>19</b>	il est très efficace pour obtenir le soutien de personnes influentes et puissantes.					

20	il communique une vision forte et stimulante.					
21	il fixe des objectifs spécifiques et mesurables et tient les gens responsables des résultats.					
22	il écoute bien et est exceptionnellement réceptif aux idées et à la contribution des autres.					
23	il est politiquement très sensible et habile.					
24	il voit au-delà des réalités actuelles pour créer de nouvelles opportunités.					
25	il a une attention extraordinaire aux détails.					
26	il reconnaît personnellement le travail bien fait.					
27	il développe des alliances pour construire une base solide de soutien.					
28	il génère loyauté et enthousiasme.					
29	il croit fermement en une structure claire et une chaîne de commandement.					
30	il est un gestionnaire très participatif.					
31	il réussit face aux conflits et à l'opposition.					
32	il sert de modèle influent des aspirations et des valeurs organisationnelles.					

### **I. Style de leadership**

Cette section vous demande de décrire le style de leadership de la personne que vous notez. Pour chaque élément, donnez le numéro "4" à la phrase qui décrit le mieux cette personne, "3" à l'article qui est le mieux, et jusqu'à "1" pour l'article qui ressemble le moins à cette personne. **(Classez de 4 jusqu'à 1)**

<b>1. Les compétences les plus fortes de l'individu sont:</b>	
<b>A</b>	Compétences analytiques

<b>B</b>	Compétences interpersonnelles	
<b>C</b>	Compétences politiques	
<b>D</b>	Capacité à exciter et à motiver	
<b>2. La meilleure façon de décrire cette personne est:</b>		
<b>A</b>	Expert technique	
<b>B</b>	Bon auditeur	
<b>C</b>	Négociateur qualifié	
<b>D</b>	Leader inspirant	
<b>3. Ce que cette personne fait le mieux est:</b>		
<b>A</b>	Prendre de bonnes décisions	
<b>B</b>	Coacher et développer des personnes	
<b>C</b>	Construire des alliances solides et une base de pouvoir	
<b>D</b>	Dynamiser et inspirer les autres	
<b>4. Ce que les gens remarquent à propos de cette personne est:</b>		
<b>A</b>	Son attention au détail	
<b>B</b>	Sa préoccupation pour les gens	
<b>C</b>	Sa capacité de réussir face aux conflits et à l'opposition	
<b>D</b>	Son charisme.	
<b>5. Le trait de leadership le plus important de cette personne est:</b>		
<b>A</b>	Sa Clarté et logique	
<b>B</b>	De Prendre soin des autres et les soutenir	
<b>C</b>	La Robustesse et l'agressivité	
<b>D</b>	L'Imagination et la créativité	
<b>6. Cette personne est mieux décrite comme suit:</b>		

<b>A</b>	Un analyste	
<b>B</b>	Un humaniste	
<b>C</b>	Un politicien	
<b>D</b>	Un visionnaire	

**III. Note globale**

Par rapport aux autres personnes que vous avez connues avec des niveaux d'expérience et de responsabilité comparables, comment évalueriez-vous cette personne sur une **échelle** de **1** à **5**:

<b>1. Efficacité globale en tant que gestionnaire.</b>	1	2	3	4	5
<b>2. Efficacité globale en tant que leader.</b>	1	2	3	4	5

## *Appendix 4*



mohamed ahmed fouatih <ahmedfouatihmohamed@gmail.com>

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### **request for permission**

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**mohamed ahmed fouatih** <ahmedfouatihmohamed@gmail.com>

29 October 2018 at 19:09

To: lee@bolman.com, bolmanl@umkc.edu

Dear Dr. Bolman,

My name is Ahmed Fouatih Mohamed, I am a PhD student in the University of Tlemcen in Algeria. Please accept this letter as my request for permission to use and revise the Leadership Orientations Survey instrument authored by you and Dr. Terrence Deal. This survey will be used to gather data for my dissertation.

As per the conditions for use listed on your website, I agree to provide a copy of any reports, publications, papers or theses resulting from the research. If requested, I will also provide copy of the data file from the research. Thank you in advance. I look forward to hearing from you.

Sincerely,



mohamed ahmed fouatih <ahmedfouatihmohamed@gmail.com>

---

### **request for permission**

---

**Bolman, Lee G.** <BolmanL@umkc.edu>

20 November 2018 at 19:41

To: mohamed ahmed fouatih <ahmedfouatihmohamed@gmail.com>

Dear Mr. Fouatih:

I am pleased to grant permission to use the Leadership Orientations Survey in your work.

Best wishes for a successful study. I look forward to learning about your results.

Lee G. Bolman, Ph.D.

Professor and Marion Bloch/Missouri Chair in Leadership

Bloch School of Management

University of Missouri-Kansas City

5110 Cherry Street

Kansas City, MO 64110

Tel: (816) 235-5407

**From:** mohamed ahmed fouatih <ahmedfouatihmohamed@gmail.com>

**Sent:** Tuesday, November 20, 2018 10:36 AM

**To:** lee@bolman.com; bolmanl@umkc.edu

**Subject:** Re: request for permission

## *Appendix 5*

Ce questionnaire vous demande de décrire votre style de leadership et de gestion

### **I. Comportements**

Vous êtes invité à indiquer à quelle fréquence chacun des éléments ci-dessous est vrai pour vous.

Veillez utiliser l'échelle suivante pour répondre à chaque élément.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Jamais</b>	<b>Occasionnellement</b>	<b>Parfois</b>	<b>souvent</b>	<b>Toujours</b>

Donc, vous répondriez «1» pour un objet qui n'est jamais vrai pour vous, «2» pour un objet qui est parfois vrai, «3» pour celui qui est parfois vrai pour vous, etc.

Soyez discriminant! Vos résultats seront plus utiles si vous réfléchissez à chaque élément et faites la distinction entre les choses que vous faites réellement et les choses que vous faites rarement ou jamais.

1. \_\_\_\_ Pensez très clairement et logiquement.
2. \_\_\_\_ Montrer des niveaux élevés de soutien et de préoccupation pour les autres.
3. \_\_\_\_ Avoir une capacité exceptionnelle à mobiliser les gens et les ressources pour faire avancer les choses.
4. \_\_\_\_ Inspirer les autres à faire de leur mieux.
5. \_\_\_\_ Mettre l'accent sur une planification minutieuse et des délais clairs.
6. \_\_\_\_ Construire la confiance par des relations ouvertes et collaboratives.
7. \_\_\_\_ Suis un négociateur très habile et avisé.
8. \_\_\_\_ Suis très charismatique.
9. \_\_\_\_ Aborder les problèmes par une analyse logique et une réflexion approfondie.
10. \_\_\_\_ Faites preuve d'une grande sensibilité et d'un souci pour les besoins et les sentiments des autres.
11. \_\_\_\_ Suis exceptionnellement persuasif et influent.
12. \_\_\_\_ Pouvoir être une source d'inspiration pour les autres.
13. \_\_\_\_ Élaborer et mettre en œuvre des politiques et procédures claires et logiques.
14. \_\_\_\_ Favoriser des niveaux élevés de participation et d'implication dans les décisions.
15. \_\_\_\_ Anticiper et gérer adroitement les conflits organisationnels.
16. \_\_\_\_ Suis très imaginatif et créatif.

17. \_\_\_\_\_ Approche des problèmes avec les faits et la logique.
18. \_\_\_\_\_ Suis toujours serviable et sensible aux autres.
19. \_\_\_\_\_ Je suis très efficace pour obtenir le soutien de personnes influentes et puissantes.
20. \_\_\_\_\_ Communiquer un sens de la vision et une mission forts et stimulants.
21. \_\_\_\_\_ Fixer des objectifs spécifiques et mesurables et tenir les gens responsables des résultats.
22. \_\_\_\_\_ Écoutez bien et je suis exceptionnellement réceptif aux idées et aux commentaires des autres.
23. \_\_\_\_\_ Suis politiquement très sensible et habile.
24. \_\_\_\_\_ Voir au-delà des réalités actuelles pour générer de nouvelles opportunités passionnantes.
25. \_\_\_\_\_ Faites attention aux détails.
26. \_\_\_\_\_ Donne une reconnaissance personnelle pour le travail bien fait.
27. \_\_\_\_\_ Développer des alliances pour constituer une base solide de soutien.
28. \_\_\_\_\_ Générer la loyauté et l'enthousiasme.
29. \_\_\_\_\_ Croire fermement en une structure claire et une chaîne de commandement.
30. \_\_\_\_\_ Suis un manager hautement participatif.
31. \_\_\_\_\_ Réussir face au conflit et à l'opposition.
32. \_\_\_\_\_ Servir de modèle influent des aspirations et des valeurs organisationnelles

## **II. Style de leadership**

Cette section vous demande de décrire votre style de leadership. Pour chaque objet, donnez le numéro "4" à la phrase qui vous décrit le mieux, "3" à l'article qui vous convient le mieux et jusqu'à "1" pour l'article qui vous ressemble le moins.

1. Mes compétences les plus fortes sont:

- \_\_\_\_\_ a. Compétences analytiques
- \_\_\_\_\_ b. Compétences interpersonnelles
- \_\_\_\_\_ c. Compétences politiques
- \_\_\_\_\_ d. Capacité à exciter et à motiver

2. La meilleure façon de me décrire est:

- \_\_\_\_\_ a. Expert technique
- \_\_\_\_\_ b. Bon auditeur
- \_\_\_\_\_ c. Négociateur qualifié
- \_\_\_\_\_ d. Leader inspirant

3. Ce qui m'a le plus aidé à réussir, c'est ma capacité à:

- \_\_\_\_\_ a. Prendre de bonnes décisions



- b. Coach et développer des personnes
- c. Construire des alliances solides et une base de pouvoir
- d. Dynamiser et inspirer les autres

4. Ce que les gens remarquent à propos de moi est mon:

- a. Attention au détail
- b. Préoccupation pour les gens
- c. Capacité de réussir face aux conflits et à l'opposition
- d. Charisme.

5. Mon trait de leadership le plus important est:

- a. Clarté et logique
- b. Prendre soin et soutenir les autres
- c. Robustesse et agressivité
- d. Imagination et créativité

6. Je suis mieux décrit comme:

- a. Un analyste
- b. Un humaniste
- c. Un politicien
- d. Un visionnaire

### **III. Note globale**

Par rapport à d'autres personnes que vous avez connues avec des niveaux d'expérience et de responsabilité comparables, comment vous classeriez-vous sur:

1. Efficacité globale en tant que gestionnaire.

1	2	3	4	5
Bas 20%		Moyen 20%		Haut 20%

2. Efficacité globale en tant que leader.

1	2	3	4	5
Bas 20%		Moyen 20%		Haut 20%

### **IV. Informations générales**

1. Êtes-vous: \_\_\_ Homme \_\_\_ Femme

2. Combien d'années vous avez été dans votre emploi actuel? \_\_\_\_\_

3. Combien d'années d'expérience avez-vous en tant que manager? \_\_\_\_\_

## **ORIENTATIONS DE LEADERSHIP (AUTRE)**

Dans cette partie, vous répondez aux mêmes questions mais à quelqu'un d'autre de votre établissement (supérieur ou subordonné) sans mentionner son nom

### **I. Comportements du leader**

Il vous est demandé d'indiquer à quelle fréquence chaque élément est vrai de la personne que vous évaluez.

Veillez utiliser l'échelle suivante pour répondre à chaque élément.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Jamais</b>	<b>Occasionnellement</b>	<b>Parfois</b>	<b>souvent</b>	<b>Toujours</b>

Donc, vous répondriez «1» pour un objet qui n'est jamais vrai pour vous, «2» pour un objet qui est parfois vrai, «3» pour celui qui est parfois vrai pour vous, etc.

Soyez discriminant! Vos résultats seront plus utiles si vous réfléchissez à chaque élément et faites la distinction entre les choses que vous faites réellement et les choses que vous faites rarement ou jamais.

1. \_\_\_\_\_ pense très clairement et logiquement.
2. \_\_\_\_\_ affiche un niveau élevé de soutien et de souci pour les autres.
3. \_\_\_\_\_ Montre une capacité exceptionnelle à mobiliser les gens et les ressources pour faire avancer les choses.
4. \_\_\_\_\_ inspire les autres à faire de leur mieux.
5. \_\_\_\_\_ Insiste fortement sur une planification minutieuse et des délais clairs.
6. \_\_\_\_\_ Renforce la confiance grâce à des relations ouvertes et collaboratives.
7. \_\_\_\_\_ Est un négociateur très habile et astucieux.
8. \_\_\_\_\_ est très charismatique.
9. \_\_\_\_\_ Aborde les problèmes par une analyse logique et une réflexion approfondie.
10. \_\_\_\_\_ fait preuve d'une grande sensibilité et d'une grande préoccupation pour les besoins et les sentiments des autres.
11. \_\_\_\_\_ est exceptionnellement persuasif et influent.
12. \_\_\_\_\_ est une inspiration pour les autres.
13. \_\_\_\_\_ Développe et met en œuvre des politiques et procédures claires et logiques.
14. \_\_\_\_\_ Favorise des niveaux élevés de participation et d'implication dans les décisions.

15. \_\_\_\_\_ Anticipe et gère adroitement les conflits organisationnels.
16. \_\_\_\_\_ Est très imaginatif et créatif.
17. \_\_\_\_\_ Aborde les problèmes de faits et de logique.
18. \_\_\_\_\_ est toujours utile et à l'écoute des autres.
19. \_\_\_\_\_ est très efficace pour obtenir le soutien de personnes influentes et puissantes.
20. \_\_\_\_\_ Communique une vision forte et stimulante et un sens de la mission.
21. \_\_\_\_\_ Fixe des objectifs spécifiques et mesurables et tient les gens responsables des résultats.
22. \_\_\_\_\_ écoute bien et est exceptionnellement réceptif aux idées et aux contributions des autres.
23. \_\_\_\_\_ est politiquement très sensible et habile.
24. \_\_\_\_\_ voit au-delà des réalités actuelles pour créer de nouvelles opportunités passionnantes.
25. \_\_\_\_\_ a une attention extraordinaire aux détails.
26. \_\_\_\_\_ Reconnaît personnellement le travail bien fait.
27. \_\_\_\_\_ Établit des alliances pour créer une base solide de soutien.
28. \_\_\_\_\_ génère loyauté et enthousiasme.
29. \_\_\_\_\_ croit fermement en une structure claire et une chaîne de commandement.
30. \_\_\_\_\_ Est un gestionnaire très participatif.
31. \_\_\_\_\_ réussit face aux conflits et à l'opposition.
32. \_\_\_\_\_ Sert de modèle influent des aspirations et des valeurs organisationnelles.

### **I. Style de leadership**

Cette section vous demande de décrire le style de leadership de la personne que vous notez. Pour chaque élément, donnez le numéro "4" à la phrase qui décrit le mieux cette personne, "3" à l'article qui est le mieux, et jusqu'à "1" pour l'article qui ressemble le moins à cette personne.

1. Les compétences les plus fortes de l'individu sont:

- \_\_\_\_\_ a. Compétences analytiques
- \_\_\_\_\_ b. Compétences interpersonnelles
- \_\_\_\_\_ c. Compétences politiques
- \_\_\_\_\_ d. Capacité à exciter et à motiver

2. La meilleure façon de décrire cette personne est:

- \_\_\_\_\_ a. Expert technique
- \_\_\_\_\_ b. Bon auditeur
- \_\_\_\_\_ c. Négociateur qualifié

\_\_\_\_\_ d. Leader inspirant

3. Ce que cette personne fait le mieux est:

\_\_\_\_\_ a. Prendre de bonnes décisions

\_\_\_\_\_ b. Coach et développer des personnes

\_\_\_\_\_ c. Construire des alliances solides et une base de pouvoir

\_\_\_\_\_ d. Dynamiser et inspirer les autres

4. Ce que les gens remarquent à propos de cette personne est:

\_\_\_\_\_ a. Attention au détail

\_\_\_\_\_ b. Préoccupation pour les gens

\_\_\_\_\_ c. Capacité de réussir face aux conflits et à l'opposition

\_\_\_\_\_ d. Charisme.

5. Le trait de leadership le plus important de cette personne est:

\_\_\_\_\_ a. Clarté et logique

\_\_\_\_\_ b. Prendre soin et soutenir les autres

\_\_\_\_\_ c. Robustesse et agressivité

\_\_\_\_\_ d. Imagination et créativité

6. Cette personne est mieux décrite comme suit:

\_\_\_\_\_ a. Un analyste

\_\_\_\_\_ b. Un humaniste

\_\_\_\_\_ c. Un politicien

\_\_\_\_\_ d. Un visionnaire

### **III. Note globale**

Par rapport aux autres personnes que vous avez connues avec des niveaux d'expérience et de responsabilité comparables, comment évalueriez-vous cette personne sur:

1. Efficacité globale en tant que gestionnaire.

1            2            3            4            5

Bas 20%

Moyen 20%

Haut 20%

2. Efficacité globale en tant que leader.

1            2            3            4            5

Bas 20%

Moyen 20%

Haut 20%

## Appendix 6

صباح الخير سيدي سيدي،

نحن نقوم بعمل بحثي على القيادة في التحضير لدكتوراه. نرجو منك الإجابة على هذا الاستبيان حول أسلوب قيادتك. نؤكد لك أن الإجابات على هذا الاستبيان ستستخدم فقط لأغراض البحث من أجل وضع اللمسات الأخيرة على الجزء التجريبي من أطروحتنا

شكرا على وقتك للإجابة على هذا الاستبيان

### I. Comportements

يرجى الإجابة على الأسئلة الواردة في هذا الاستبيان باستخدام المقياس (1-5)

"1" لحالة لا تكون صحيحة أبداً ، "2" لحالة تكون صحيحة مرات قليلة، "3" بالنسبة لحالة تكون صحيحة في بعض الأحيان ، "4" بالنسبة لحالة غالباً ما تكون صحيحة و "5" لحالة تكون دائماً صحيحة

يرجى أن تكون دقيقة للسماح للنتائج أن تكون دقيقة وأكثر فائدة

N	Les questions	1	2	3	4	5
		أبدا	مرات قليلة	أحيانا	غالباً	دائماً
1	أفكر بشكل واضح جدا ومنطقي					
2	أظهر درجة عالية من الدعم للآخرين					
3	لدي قدرة استثنائية لتعبئة الناس لإنجاز الأمور					
4	ألهم الآخرين على بذل قصارى جهدهم					
5	أصر بشدة على التخطيط الدقيق					
6	أقوم ببناء الثقة من خلال علاقات مفتوحة وتعاونية					
7	أنا مفاوض ماهر جدا					
8	أنا شخص كاريزمي					
9	أحل المشاكل بالتحليل المنطقي والتفكير المتعمق					

10	أظهر حساسية واهتمام كبيرين لاحتياجات ومشاعر الآخرين				
11	أنا مقنع بشكل استثنائي ومؤثر				
12	يمكنني أن أكون مصدر إلهام للآخرين				
13	أقوم بتطوير وتنفيذ سياسات وإجراءات واضحة ومنطقية				
14	أعزز مستويات عالية من المشاركة والانخراط في القرارات				
15	أتوقع وأدير الصراعات التنظيمية بمهارة				
16	أنا مبدع جدا وخلاق				
17	أنظر الي المشاكل من خلال الحقائق والمنطق				
18	أنا دائما مفيد وحساس للآخرين				
19	أنا فعال جدا في الحصول على دعم من الأشخاص ذوي النفوذ والقوة				
20	أتواصل بإحساس قوي ومحفز للرؤية				
21	أضع أهدافا محددة وقابلة للقياس وأحاسب الأشخاص على النتائج				
22	أستمع جيدا وأنا متفائل بشكل استثنائي لأفكار ومساهمات الآخرين.				
23	أنا حساس جدا سياسيا				
24	أرى ما هو أبعد من الواقع الحالي لتوليد فرص جديدة				
25	لدي اهتمام غير عادي بالتفاصيل				
26	أكافئ شخصا على العمل بصورة جيدة				
27	أطور تحالفات لبناء قاعدة صلبة من الدعم				
28	أولد الولاء والحماس				

29	أنا أو من إيماننا راسخا بهيكل واضح وسلسلة قيادية				
30	أنا مدير مشارك للغاية				
31	أنا ناجح في مواجهة الصراع والمعارضة				
32	أنا نموذج مؤثر من الطموحات والقيم التنظيمية				

## II. Style de leadership

هذا القسم يطلب منك وصف أسلوب قيادتك.

أعط الرقم "4" إلى العبارة التي تصفك بشكل أفضل. ثم "3" العبارة التي تناسبك بعدها. الى أن تصل إلى "1" العبارة الذي يناسبك أقل. (ترتيب من 4 إلى 1)

<b>1. أقوى مهاراتي هي:</b>		
A	مهارات تحليلية	
B	المهارات الشخصية	
C	المهارات السياسية	
D	القدرة على إثارة وتحفيز	
<b>2. أفضل طريقة لوصف نفسي هي:</b>		
A	خبير تقني	
B	مستمع جيد	
C	مفاوض مؤهل	
D	قائد ملهم	
<b>3. ما ساعدني أكثر على النجاح هو قدرتي على:</b>		
A	اتخاذ قرارات جيدة	
B	تدريب وتطوير الناس	

C	بناء تحالفات قوية وقاعدة السلطة	
D	تنشيط وإلهام الآخرين	
<b>4. ما يلاحظه الناس عني.</b>		
A	اهتمامي بالتفاصيل	
B	اهتمامي بالناس	
C	قدرتي على النجاح في مواجهة الصراع والمعارضة	
D	الكاريزما	
<b>5. أهم صفاتي الريادية هي:</b>		
A	الوضوح والمنطق	
B	الاعتناء بالآخرين ودعمهم	
C	متانة و عدوانية	
D	الخيال والإبداع	
<b>6. أنا أفضل وصفي بأنني:</b>		
A	محلل	
B	انساني	
C	سياسي	
D	حالم	

### **III. Note globale**

بالمقارنة بالأشخاص الآخرين الذين عرفتهم بمستويات قابلة للمقارنة من الخبرة والمسؤولية ،  
كيف يمكنك الترتيب نفسك على مقياس من 1 إلى 5

<b>1. الفعالية الشاملة كمدير.</b>	1	2	3	4	5
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الفعالية الشاملة كقائد 2.	1	2	3	4	5
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#### IV. Informations personnels

هل أنت: \_\_\_ ذكر \_\_\_ أنثى 1.

\_\_\_ كم سنة كنت في منصبك الحالي؟ 2.

\_\_\_ كم عدد سنوات الخبرة التي لديك كمسيير؟ 3.

#### ORIENTATIONS DE LEADERSHIP (AUTRE)

في هذا القسم ، تجيب عن الأسئلة نفسها ولكن على شخص آخر (مسؤول أو مسير) في مؤسستك (رئيسك أو مروض) دون ذكر اسمه

#### I. Comportements du leader

يرجى الإجابة على الأسئلة الواردة في هذا الاستبيان باستخدام المقياس (5-1)

"1" لحالة لا تكون صحيحة أبداً ، "2" لحالة تكون صحيحة مرات قليلة، "3" بالنسبة لحالة تكون صحيحة في بعض الأحيان ، "4" بالنسبة لحالة غالباً ما تكون صحيحة و "5" لحالة تكون دائماً صحيحة

يرجى أن تكون دقيقة للسماح للنتائج أن تكون دقيقة وأكثر فائدة

N	Les questions	1	2	3	4	5
		أبدا	مرات قليلة	أحيانا	غالباً	دائماً
1	يفكر بشكل واضح جداً ومنطقي					
2	يظهر درجة عالية من الدعم للآخرين					
3	لديه قدرة استثنائية لتعبئة الناس لإنجاز الأمور					
4	يلهم الآخرين على بذل قصارى جهدهم					
5	يصر بشدة على التخطيط الدقيق					
6	يقوم ببناء الثقة من خلال علاقات مفتوحة وتعاونية					
7	هو مفاوض ماهر جداً					

8	هو شخص كاريزمي				
9	يحل المشاكل بالتحليل المنطقي والتفكير المتعمق				
10	يظهر حساسية واهتمام كبيرين لاحتياجات ومشاعر الآخرين				
11	هو مقنع بشكل استثنائي ومؤثر				
12	يمكنه أن يكون مصدر إلهام للآخرين				
13	يقوم بتطوير وتنفيذ سياسات وإجراءات واضحة ومنطقية				
14	يعزز مستويات عالية من المشاركة والانخراط في القرارات				
15	يتوقع ويدير الصراعات التنظيمية بمهارة				
16	هو مبدع جدا وخلاق				
17	ينظر الي المشاكل من خلال الحقائق والمنطق				
18	هو دائما مفيد وحساس للآخرين				
19	هو فعال جدا في الحصول على دعم من الأشخاص ذوي النفوذ والقوة				
20	يتواصل بإحساس قوي ومحفز للرؤية				
21	يضع أهدافاً محددة وقابلة للقياس ويحاسب الأشخاص على النتائج				
22	يستمتع جيدا و هو متفائل بشكل استثنائي لأفكار ومساهمات الآخرين.				
23	هو حساس جدا سياسيا				
24	يرى ما هو أبعد من الواقع الحالي لتوليد فرص جديدة				
25	لديه اهتمام غير عادي بالتفاصيل				
26	يكافئ شخصا على العمل بصورة جيدة				

27	يطور تحالفات لبناء قاعدة صلبة من الدعم					
28	يولد الولاء والحماس					
29	هو يؤمن إيماناً راسخاً بهيكل واضح وسلسلة قيادية					
30	هو مدير مشارك للغاية					
31	هو ناجح في مواجهة الصراع والمعارضة					
32	هو نموذج مؤثر من الطموحات والقيم التنظيمية					

### I. Style de leadership

هذا القسم يطلب منك وصف أسلوب قيادتك. لكل بند ، أعط الرقم "4" إلى العبارة التي تصفك بشكل أفضل. ثم "3" العبارة التي تناسبك بعدها. الى أن تصل إلى "1" للعنصر الذي يناسبك أقل

<b>1. أقوى مهاراته هي:</b>		
<b>A</b>	مهارات تحليلية	
<b>B</b>	المهارات الشخصية	
<b>C</b>	المهارات السياسية	
<b>D</b>	القدرة على إثارة وتحفيز	
<b>2. أفضل طريقة لوصفه هي:</b>		
<b>A</b>	خبير تقني	
<b>B</b>	مستمع جيد	
<b>C</b>	مفاوض مؤهل	
<b>D</b>	قائد ملهم	
<b>3. ما ساعده أكثر على النجاح هو قدرته على:</b>		
<b>A</b>	اتخاذ قرارات جيدة	
<b>B</b>	تدريب وتطوير الناس	
<b>C</b>	بناء تحالفات قوية وقاعدة السلطة	

D	تنشيط وإلهام الآخرين	
4. ما يلاحظه الناس عنه.		
A	اهتمامه بالتفاصيل	
B	اهتمامه بالناس	
C	قدرته على النجاح في مواجهة الصراع والمعارضة	
D	الكاريزما	
5. أهم صفاته الريادية هي:		
A	الوضوح والمنطق	
B	الاعتناء بالآخرين ودعمهم	
C	متانة و عدوانية	
D	الخيال والإبداع	
6. أفضل طريقة لوصفه هي:		
A	محلل	
B	انساني	
C	سياسي	
D	حالم	

### **III. Note globale**

بالمقارنة بالأشخاص الآخرين الذين عرفتهم بمستويات قابلة للمقارنة من الخبرة والمسؤولية ،

كيف يمكنك الترتيب نفسك على مقياس من 1 إلى 5

1. الفعالية الشاملة كمدير	1	2	3	4	5
2. الفعالية الشاملة كقائد	1	2	3	4	5

**المُلخَص :** هذه الدراسة مبنية على نظرية الباحثين الأمريكيين Bolman and Deal (1991) المعروفة بنظرية "الأطر الأربعة للقيادة". وفقًا لهذين الباحثين يجب على القادة الناجحون التعامل مع القضايا التنظيمية من خلال أربعة عدسات (الهيكلية ، الموارد البشرية ، السياسية ، والرمزية). القادة الذين يمكنهم تحديد الإطار الأنسب للاستخدام اعتمادًا على الموقف والأشخاص المعنيين هم القادة الأكثر فاعلية.

باستخدام نظرية "الأطر الأربعة للقيادة" كإطار مفاهيمي و استبيان التوجهات القيادية من قبل Bolman and Deal (1991) كان الهدف البحثي من هذه الدراسة هو تحديد عدد و نوع العدسات الإدارية المستخدمة من طرف المسيرين في الجامعات الجزائرية (التقييم الذاتي وتقييم الآخرين). وهل هذه توجهات القيادة المرتبطة بفعاليتهم كقادة ومديرين (التقييم الذاتي وتقييم الآخرين).

تظهر النتائج هيمنة الإطار الهيكلي ، كما تُظهر مزيجًا من الاستخدام بين إطار الموارد البشرية و الإطار الهيكلي للمديرين الذين يستخدمون أكثر من إطار واحد.

**الكلمات المفتاحية:** نظرية الأطر الأربعة للقيادة ، التعليم العالي ، التنمية الاقتصادية

## ABSTRACT

The focus of this study is the four frames of leadership by Bolman and Deal (1991). According to them effective leaders should approach organizational issues from four perspectives called "frames". Leaders who can access and utilize all the four frames (structural, human resource, political, and symbolic) and could determine which frame would be most appropriately used depending on the situation and the people involved are the most effective leaders.

Using reframing theory as a conceptual framework and Leadership Orientations Survey Instrument by Bolman and Deal, the research objective of this study was to determine which and how many frames of Bolman and Deal's do the managers of the Algerian universities report as the most dominant frames (self-rating and others rating), and are those leadership orientations correlated to their effectiveness as leaders and managers (self-rating and others rating).

The results show the domination of the structural frame, also shows a combination of use between the structural and human resource frame for the managers that have access to more than one frame.

**Key words:** reframing theory, higher education, economic development

## RESUME

Cette étude se concentre sur les quatre cadres de leadership de Bolman et Deal (1991). Selon eux, les leaders efficaces devraient aborder les problèmes organisationnels sous quatre angles appelés «cadres». Les leaders qui peuvent accéder et utiliser les quatre cadres (structurel, ressources humaines, politiques et symboliques) et qui pourraient déterminer quel cadre serait le plus approprié en fonction de la situation et des personnes impliquées sont les leaders les plus efficaces.

En utilisant la «théorie du recadrage» comme cadre conceptuel et le questionnaire de les orientations du leadership de Bolman et Deal, l'objectif de recherche de cette étude était de déterminer quelles et combien de cadres de Bolman et Deal les gestionnaires des universités algériennes rapportent comme les cadres les plus dominants (auto-évaluation et évaluation des autres), et ces orientations de leadership sont-elles corrélées à leur efficacité en tant que leaders et gestionnaires (auto-évaluation et évaluation des autres).

Les résultats montrent la domination du cadre structurel, montre également une combinaison d'utilisation entre le cadre structurel et des ressources humaines pour les gestionnaires qui ont accès à plus d'un cadre.

Mots clés : théorie du recadrage, enseignement supérieur, développement économique