

Investigating the Orientations of the Schoolchildren's Talents in the Algerian Educational System (Exploratory Study)

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Abstract

The present study seeks to highlight the orientation of the schoolchildren's talents in the Algerian Educational System. It is not concerned with discovering the talented pupils and making them all equal from their early schooling, or lists the different talents in specific patterns neither. The study focuses on school acquisition that is always expressed through quantitative average which is the product of the convergence of several talents. Based on several theoretical data, the main question of the study emerges as follow; what are the different orientations of schoolchildren's talents in the Algerian Educational System? In the light of what preceded the study attempts to focus on the following points; (a) having an in-depth view about the different talents that characterizes the schoolchildren, (b) evaluate the competences and talents of schoolchildren, (c) discover the talents of schoolchildren in the light of the theory of multiple intelligences, and (d) knowing about the differences of children's talents according to the gender and age. The present study is classified as descriptive survey which consists on collecting data through field investigation then classifying and analyzing them. In this survey the researcher used Haward Gardner lists of Multiple Intelligences to identify the talents of schoolchildren in the Algerian School. To evaluate and identify the orientations of schoolchildren's talents we have used that scale as a principle tool of research which was applied on 90 pupils (girls and boys) representing our sample. The results of the research have shown the following; (a) pupils having a Social Intelligence: 18.94%, (b) pupils having an Interpersonal Intelligence: 16.67%, (c) pupils having a Linguistic Intelligence: 15.22%, (d) pupils having a Visual and Spatial Intelligence:14.97%, (e) pupils having Mathematical and Logical Intelligence:14.27%, (f) pupils having Bodily/Kinesthetic Intelligence: 11.94%, and vii) pupils having Musical Intelligence 8.00%.

Keywords: Multiple Intelligences, talent

Introduction

A large number of pupils join the Algerian school each year, they all start from the same departure line but they leave it having different levels. If we exclude the school leaving and failure which lead pupils to back stages of learning; we recognize that to reach the end of the secondary schooling period, pupils' evaluation is based on a quantitative assessment of their school acquisition in choosing their streams (major) without taking any consideration of their talents during their long schooling period.

Many researchers were concerned with studying the phenomenon of talents and showing its importance in the educational and schooling field. Among them, Howard Gardner 1983 in his Theory of Multiple Intelligences; He considers the talent or the competence as: "the ability of the individual to see a specific problem and solve it or through it he gives something interesting to a group of individuals (Adel Abdellah Mohamed 2005:06). Through this definition Gardner put the intelligence and the talent in the same position.

To know this talent he used a number of lists gathered in seven (07) categories of children's intelligences as follows: - Verbal-linguistic intelligence, - Logical-mathematical intelligence, - Spatial-visual intelligence, - Bodily-kinesthetic intelligence, - Musical intelligences, - Interpersonal intelligence, - Intrapersonal intelligence. In 1997 he added another category that he called, - Naturalist intelligence, he came later in 1999 to add another type, and named it the Existential intelligence. According to Gardner all the above mentioned intelligences are present in every child without exception, but their degree and level differ from one child to another according to the individual differences.

Research Problem

In the light of the previous theoretical data the study attempts to answer the following research question:

What are the Orientations of Schoolchildren's Talents?

Significance of the Study

The present study seeks to show the orientation of schoolchildren's talents in our educational system, which is not concerned with discovering the talented pupils and making them all equal from their early schooling, or lists the different talents in specific patterns neither. The study focuses on school acquisition that is always expressed through quantitative average which is the product of the convergence of several talents.

Goals and Objectives of the study

The study aims at highlighting the following points:

- Knowing the orientations of the different talents that characterize the schoolchildren.
- Showing the talents which have low orientation.
- Evaluate the competences and talents of schoolchildren.
- Discover the schoolchildren's talents in the light of the Multiple Intelligences Theory.
- Know the different salient talents outside the familial environment control.
- Discover the schoolchildren's talents in the purpose of refining and directing them instead of losing them.
- To exploit the pupils' talents and their attitude in the orientation process towards their streams (major) at the secondary school.
- To investigate the differences between children's talents according to the gender.

Theoretical Consideration and Study Concepts

Concepts on the Talent

Plato introduced the concept of competences and talents, he had the idea that individuals cannot be all equal in terms of talents and competences from their birth, they cannot inherit that. The philosopher Francis Bacon emphasized the natural talent, yet he admits the role of education in developing and refining the capacities. Contrarily to those philosophers, Thomas Hobbes and John Locke criticized deeply the idea of talents' and capacities' inheritance, at that time a new era began on talents and competencies study in 19th century with the emergence of psychological test and the psychology of individual differences as a new scientific trend. The contribution of the English scientist Francis Galton with the publication of a series of work remains in the same direction of the talents' inheritance from parents to children.

The German scientist William Stern used the test battery of Alfred Binet with which he distinguished between two kinds of talents: the efficient talents and the spontaneous talents. He sees that children having efficient talents need all the time an outside consultancy and the scientific performance is best suited to them. Concerning children possessing the spontaneous talents have more tendencies towards mental and theoretical performance. According to Stern, the principle idea in explaining the talent is through the combination between the internal factor of the talent and the external one in terms of education and the surrounding environment and under the influence of the development and the external factors, the talents are transformed into characteristics as a result of the inter-influence of the internal and the external facts; however, the German scientist "Ernest Millman" (1917) considers the external factors as the only ones to strengthen or to weaken the inherited talents (Mohamed Beni Younes, 2009).

In the late 50's psychologists used the concept of competence for children, yet the use of the term "talent" was restricted in literature and artistic studies only under what is so called artistic psychology. From the time White (1959) introduced the term competence in psychology, there have been a kind of an inter-relation between the two concepts: competence and talent up to now (Pierre Oleron et al, 1981).

Many researchers merge the talents with the studies of intelligences and competences in general and consider the competence "represents the higher level from the development of general and special knowledge constituents and skills and competences that ensure reaching success in different kind of activities" (Mohamed Beni Younes, 2009). Thus, scholars do not deal with only one competence but a number of inter-related competences in which each one is influenced by the following factors:

- Active influences and exchangeable with the surrounding environment,
- Educational and learning processes.

These factors lead to the emergence of two kinds of competences and talents: general competences and talents, and special competences and talents. This issue is rejected by other researchers in terms of the origin of talents' and competences' emergence; this is due to the divergence of many views and schools of psychology. Some of them claim that competences and talents are already determined from birth and genetically programmed. There is a third view which gathers between both the genetic factors and acquired ones in the emergence of distinguished talents and competences. The talent is individual that characterizes one person from another and it is psychological at first level, it needs the combination of several mental cognitive and non-cognitive processes with the essential needs to practice the performance (Mohamed Kacim Abdellah, 2009).

Psychologists gave importance to the study of talents and creativity as a specific phenomenon; from an early time they have designed scales and tests to evaluate the different talents (Benesch Hellmuth, 2003). Scientists consider the artistic genius and the ability to produce come to the early ages of childhood (Mustapha Souwif, 1999).

The theory of Multiple Intelligences of Howard Gardner 1983 is considered as the most important theory that could state as many intelligences and talents. It could state a lot of details as follows:

Visual-Spatial – it is characterized by: think in terms of physical space, as do architects and sailors. Very aware of their environments. They like to draw, do jigsaw puzzles, read maps, and daydream. They can be taught through drawings, verbal and physical imagery. Tools include models, graphics, charts, photographs, drawings, 3-D modeling, video, videoconferencing, television, multimedia, texts with pictures/charts/graphs.

Bodily-kinesthetic - use the body effectively, like a dancer or a surgeon. Keen sense of body awareness. They like movement, making things, touching. They communicate

well through body language and be taught through physical activity, hands-on learning, acting out, role playing. Tools include equipment and real objects.

Musical - show sensitivity to rhythm and sound. They love music, but they are also sensitive to sounds in their environments. They may study better with music in the background. They can be taught by turning lessons into lyrics, speaking rhythmically, tapping out time. Tools include musical instruments, music, radio, stereo, CD-ROM, multimedia.

Interpersonal - understanding, interacting with others. These students learn through interaction. They have many friends, empathy for others, street smarts. They can be taught through group activities, seminars, dialogues. Tools include the telephone, audio conferencing, time and attention from the instructor, video conferencing, writing, computer conferencing, E-mail.

Intrapersonal - understanding one's own interests, goals. These learners tend to shy away from others. They're in tune with their inner feelings; they have wisdom, intuition and motivation, as well as a strong will, confidence and opinions. They can be taught through independent study and introspection. Tools include books, creative materials, diaries, privacy and time. They are the most independent of the learners.

Linguistic - using words effectively. These learners have highly developed auditory skills and often think in words. They like reading, playing word games, making up poetry or stories. They can be taught by encouraging them to say and see words, read books together. Tools include computers, games, multimedia, books, tape recorders, and lecture.

Logical -Mathematical - reasoning, calculating. Think conceptually, abstractly and are able to see and explore patterns and relationships. They like to experiment, solve puzzles, ask cosmic questions. They can be taught through logic games, investigations, mysteries. They need to learn and form concepts before they can deal with details.

Design of the Study

Research Methodology

The present Study adopted descriptive survey which consists on an amount of scientific procedures for collecting data through field investigation then classifying and analyzing them according to descriptive statistics.

Research Tool

Gardner's lists for orienting schoolchildren's talents

This scale consists of seven (07) sub-scales next to each we have a specific pattern of multiple intelligences patterns. These lists have sixty eight (68) expressions gathered in seven (07) patterns of intelligence or talent, these are; (a) Verbal-linguistic intelligence, (b) Logical-mathematical intelligence, (c) Spatial-visual intelligence, (d) Bodily-kinesthetic intelligence, (e) Musical intelligences, (f) Interpersonal intelligence, and (g) Intrapersonal intelligence.

Application of the scale

The scale was applied by the two researchers on the sample according to the same conditions and for the same reasons mentioned above.

Reliability and Validity of the instrument

The researcher Adel Abdellah Mohamed translated the said lists to the Arabic language and applied them on the Arab environment as a diagnostic scale. Reliability was calculated where the reliability coefficient varied between (0.67-0.92) at the significance level 0.01. The Internal Consistency method was applied on the same sample and the results varied between 0.58-0.93 at the significance level 0.01.

In order to ensure validity of the instrument, different ways have been used on the Arab environment: 1. Criterion Validity where the values varied between 0.71 and 0.93 from each dimension at the significance level 0.01. 2. We have calculated the distinguishing validity too and "T" value varied between 8.65 and 17.23 this was at the significance level 0.01.

Population and Sample

A number of teachers participated in this study from different primary schools of the same directorate in the municipality of Bordj El Kifane – Algiers. The teachers were asked to fill in the form of the scale for each pupil; The number of forms was initially 300, which were given to a number of teachers who accepted to collaborate with the researchers, The process needed more time from what we have planned for since it coincided with the third term exam, so we decided to extend the collection of the scale to a whole month. However, after the collection and selection of the scale we have excluded 210 forms and kept 90 for the following reasons:

- Some of the forms were empty,
- Fill in some pages of the scales' form and leaving others,
- Exclude the uncompleted forms,
- Exclude forms containing incomprehensible or uncompleted information about the pupils,
- Some forms were not handed back for unknown reasons.

Table 1

Sample According to the School and Gender

Sex	Si Ismail School	Rass Essouta School	Fernane Fethi School	Total
Male	29	08	10	47
Female	31	02	10	43
Total	60	10	20	90

Research Result and Discussion

The details of the schoolchildren’s talents orientations were shown in the following table as follow:

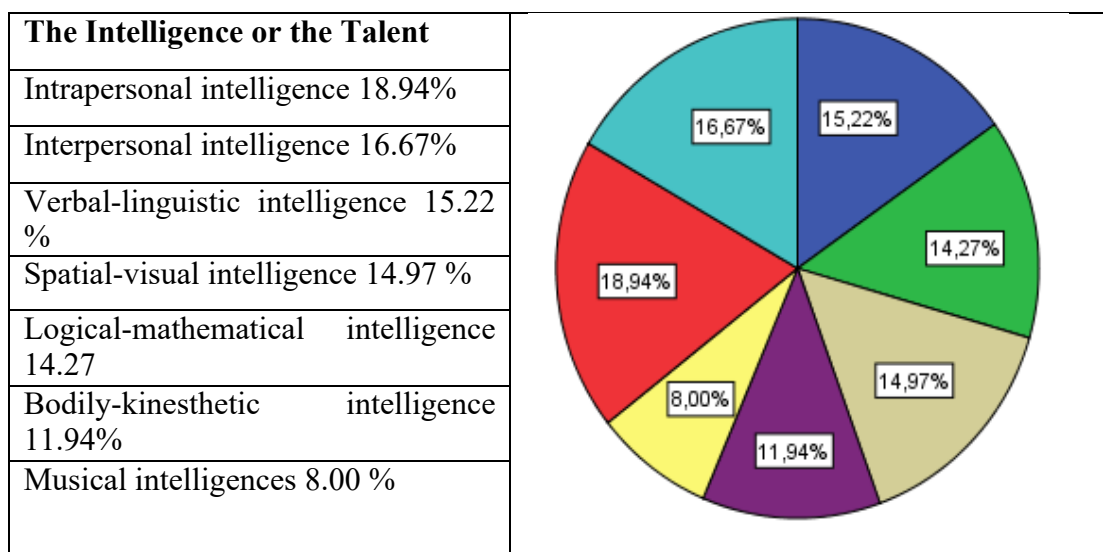
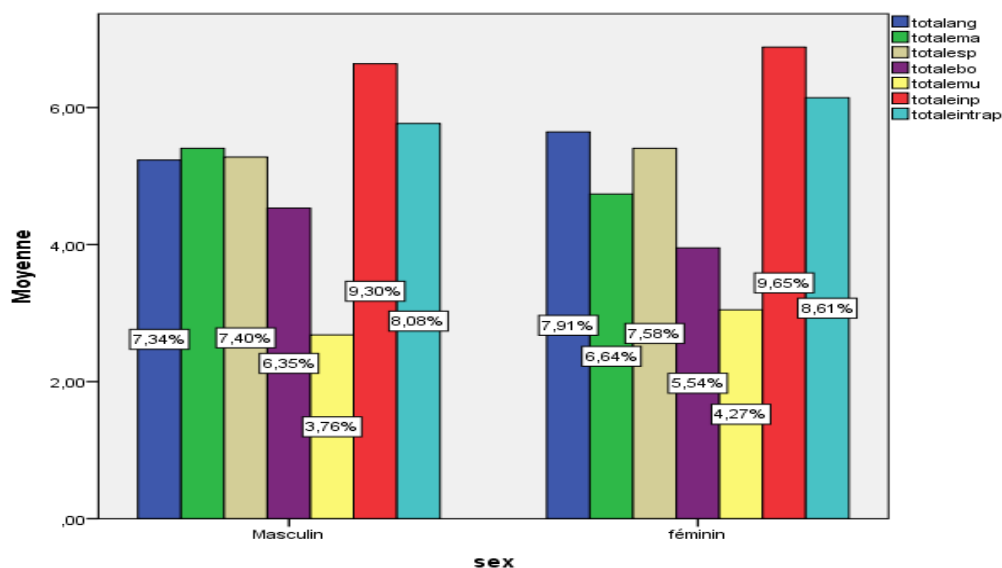


Figure 1. Pupils’ Distribution according to the Patterns of Talents

As we can see from the table and chart, the results have shown the highest percentage of the Intrapersonal intelligence with 18.94 %. After comes the Interpersonal intelligence with 16.67 %, then the Verbal-linguistic intelligence 15.22%, in the fourth position we have Spatial-visual intelligence 14.97 %, right after we can see Logical-mathematical intelligence 14.27% which is followed by the Bodily-kinesthetic intelligence with 11.94 %; in the last position we have the Musical intelligence with a lower percentage 8.00 %. From the results we can see that there isn’t a great different between them, the rates are close to each other but the lowest one is the Musical intelligence.



Comparison of the Talent between Males and Females

Figure 2. Percentage of Talents’ Rates according to the Sex

From the chart we recognize a slight difference between boys and girls; they had almost the same rating (in the same order): the Intrapersonal intelligence, the Interpersonal intelligence, the Spatial-visual intelligence, the Bodily-kinesthetic intelligence and the Musical intelligence (consecutively). Yet, there have been a different order in the Verbal-linguistic intelligence where the girls exceeded boys but regressed in the Logical-mathematical intelligence as the following table shows:

Table 2

Comparison of the Talents between Males and Females

Talents	Males	Order	Females	Order	Percentage
Verbal-linguistic intelligence	7.34%	5	7.91%	3	0.63%
Logical-mathematical intelligence	7.58%	3	6.64%	5	0.94%
Spatial-visual intelligence	7.40%	4	7.58%	4	0.18%
Bodily-kinesthetic intelligence	6.35%	6	5.54%	6	0.81%
Musical intelligence	3.76%	7	4.27%	7	0.51%
Intrapersonal intelligence	9.30%	1	9.65%	1	0.35%
Interpersonal intelligence	8.08%	2	8.61%	2	0.53%
Total	*49.81%		50.02%		

*- Missing Value estimated at 01 in the Logical-mathematic intelligence for males.

The above table shows a slight difference between boys and girls which did not exceed 0.94 % as the highest rate in the Logical-mathematical intelligence whereas the lowest rate was in the Spatial-visual intelligence with 0.18%.

Although the sample was not equal in number between boys (47) and girls (43) but we have remarked that girls exceeded in the Intrapersonal intelligence with 9.65% against 9.30% for the boys. As they have exceeded in the Interpersonal intelligence as well with 8.61% against 8.08% for boys. The same thing for the Spatial-visual intelligence where they exceeded again with 7.58% against 7.40%. The results have shown also the girls' rating in the Musical intelligence with 4.27% against 3.76 for boys. The position of the girls regressed in the Bodily-kinesthetic intelligence where boys exceeded with 6.35% against 5.54% for girls.

General Discussion of the Results

From this research we reached a number of results that has shown general orientations of schoolchildren's talents; it revealed close rating with different order, where the order was as follow: Intrapersonal intelligence, Interpersonal intelligence, Verbal-linguistic intelligence, Spatial-visual intelligence, Logical-mathematical intelligence, Bodily-kinesthetic intelligence, Musical intelligences. This order was the same with the only difference in the Verbal-linguistic intelligence in-favor the girls and the Logical-mathematical intelligence in-favor boys.

According to the cultural and social data, these results go with Gardner's definition of the talent where he considers each ability or biological and psychological Potential for the treatment of information, which can be activated in a cultural environment to solve problems or find outcomes that have value in whichever culture (Khir Soulaïmane Chouahine, 2014)

According to Slimane Medhar, the Algerian society is based on a traditional social system. Both Cote Marc and Camilleri Carmel consider speaking, the social communication network, the statement and group living as pillars for its existence and continuity. Within this social system that still existing, we can explain the results of this research where the importance was given to the Intrapersonal intelligence, the interpersonal intelligence, the Verbal-linguistic intelligence, the Spatial-visual intelligence; they were in the first positions whereas the Musical Intelligence which consists on creativity (individual and social) and artistic appreciation, still restricted by the social, cultural and religious codes (Slimane Medhar, 1992).

Limitation of the Study

1. The sample was limited to a specific geographic area which doesn't represent the whole statistic population, even if it has the same educational program designed by the Algerian educational system.

2. There were not any continuous follow up of the sample neither before nor after the research to investigate better the orientation of the schoolchildren's talents and intelligences.
3. The study was originally conducted in Arabic language and applied on the Arab environment, and then it was translated to English. For this reason we have kept the references in their original version.
4. The teachers were the only source of information which is due to the fact that they work in a governmental institution with a steady presence, in the contrary to the parents who can be reached only through informal relations. In addition, children are too young and they can't be an authentic source of information; thus, the results of the survey came from one side only.
5. As a follow up of the previous point, the teacher may not know everything about the pupil's artistic and musical capacities.
6. In the Algerian educational system, the physical(sport) and musical activities are practiced under what is called physical-corporal and musical education (limited only in practicing sport, drawing and recitation), the number of hours allocated to these subjects is limited and they have the lowest coefficients at the end of the primary schools' exams. As a result, the teacher's knowledge about the pupils' levels in terms of the bodily- kinesthetic and musical talents and intelligences still relative.
7. The large number of pupils and crowded classes handicap the teacher to have a perfect knowledge about the talents of all the pupils.

Suggestions and Recommendations

1. This study helps to the early discovery of children's talents.
2. The results of the present study can be used to design academic programs that fit the need and the future view of the Algerian educational system.
3. The results of this survey can contribute in adjusting the weak and wrong orientations of the schoolchildren's talents.
4. The results of this study can be used to help the pupils in choosing their streams and majors in the secondary school (general and vocational), taking the talent as the major element in the orientation.
5. Conducting research with a larger sample of pupils from the primary school to the end of the secondary school to follow the development and the change in the schoolchildren's talents and intelligences seeking the goals of evaluating and adjusting them.
6. Conducting research with a larger sample of pupils from the primary school to the end of the secondary school with the contribution of the three partners: teachers, parents and the pupils themselves.

7. This research can be used to setup popularization and orientation programs.
8. Develop the weak talents of the schoolchild and reinforce the strong ones.
9. Conduct socio-cultural studies to have an in-depth view about the value scales according to the social, cultural and religious data having as an ultimate goal the orientation, control and the development of the talents according to the Arabic and Islamic specificities.
10. The Algerian educational system adopted free education policy after the independence for all the stages which limited and led the educational process to various organizational problems and the mismanagement of the material tools. It tried to catch up with the project of the pupil through a number of reforms and established infrastructures for evaluating the schooling and the vocational training by providing pupils with all the information needed for their schooling or vocational career, this will help them to take a decision about their future and plan for their career. The most important decision that is taken by the pupil with the help of his parents is the choice of the subject or major at the secondary school or the vocational training, this will be according to his choice or desire and the information provided, yet the decision taken will be based mainly on the results reflecting the capacities of the pupil which is expressed through an average of the different modules taught, after comes the desire of the pupils in the second position for the evaluation (Ministry of National Education, 1993). It is important to include the knowledge and control of the pupils' talents in the reform of the educational system.

Conclusion

The present exploratory study was concerned with discovering and showing the orientations and the schoolchildren's talents in the Algerian Educational System, which takes the school acquisition as the only mean to evaluate pupils' talents and competences.

The aim of this study was to show and investigate the orientation of the talents that characterize the schoolchildren in the Algerian school in the light of the Multiple Intelligences theory.

The results had shown a general orientation of schoolchildren toward the Intrapersonal intelligence, after the Interpersonal intelligence, then the Verbal-linguistic intelligence, after that the Spatial-visual intelligence, the Logical-mathematical intelligence came in the fifth position, which was followed by the Bodily-kinesthetic intelligence and the Musical intelligences which represented the lowest rate. This order did not change between boys and girls but only in the Verbal linguistic

intelligence in favor the girls and the Logical-mathematical intelligence in favor the boys.

References

- الانصاري، بدر محمد.(2009). قياس الشخصية. القاهرة: دار الكتاب الحديث.
- اسماعيل محمد، عماد الدين.(1970).المنهج العلمي و تفسير السلوك.مصر:مكتبة النهضة المصرية.
- القادري،محمد حسن الرشيد،و الشويلات، منى عطا الله.(2014).مبادئ الاحصاء و الاحتمالات و معالجاتها باستخدام برنامج SPSS . (ط.2).الأردن:دار الصفا.
- انجس، مورييس. (2006). منهجية البحث العلمي في العلوم الإنسانية (ترجمة بوزيد صحراوي وآخرون) (ط.2). الجزائر: دار القصة.
- بني يونس، محمد .(2009). مبادئ علم النفس. عمان .الأردن: دار الشروق.
- يوسف،عبد الكريم.(2013).الأساليب الإحصائية و تطبيقاتها يدويا و باستعمال برنامج spss. (الجزء 1).الجزائر:ديوان المطبوعات الجامعية.
- بينيش، هلموت .(2003). علم النفس (ترجمة أنطوان الهاشم). بيروت: المكتبة الشرقية.
- تركي، رابح .(1984). مناهج البحث في علوم التربية و علم النفس. الجزائر: المؤسسة الوطنية للكتاب.
- زهران، حامد عبد السلام .(2003). علم النفس الاجتماعي (ط.6). القاهرة. مصر: عالم الكتاب.
- زيدان، محمد مصطفى. (1979). معجم المصطلحات النفسية والتربوية (ط-1).جدة: دار الشروق.
- سويف، مصطفى .(1999). دراسات نفسية في الابداع والتلقي. القاهرة: الدار المصرية اللبنانية.
- سويف، مصطفى. (1959). الأسس النفسية في الابداع الفني (ط 2). مصر: دار المعارف
- شاكور محمود، جودت .(2013). الاتصال في علم النفس (ط.1).عمان. الأردن: دار صفاء.
- شواهين، خير، سليمان. (2014).الذكاءات المتعددة و تصميم الناهج المدرسية. الأردن:عالم الكتب الحديث.

- شواهين، خير، سليمان. (2014). نظرية الذكاءات المتعددة: نماذج تطبيقية. الأردن: عالم الكتب الحديث.
- عامر، مصباح. (2011). علم النفس الاجتماعي في السياسة والاعلام. القاهرة: دار الكتاب الحديث.
- عبد الله محمد، عادل. (2006). قوائم جاردنر لتقييم مواهب الأطفال في سن المدرسة. القاهرة. مصر: دار الرشاد
- عبد الله محمد، عادل. (2006). قائمة الذكاءات المتعددة لتقييم الموهبة. مصر: دار الرشاد
- محمد قاسم، عبد الله. (2009). الشخصية (ط.2). دمشق. سوريا: دار المكتبي.
- منورة مصري، عبد الحميد. (2000). علم نفس الفن وتربية الموهبة. القاهرة: دار غريب.
- ميزونوف، جون. (1980). ديناميكية الجماعات (ترجمة فريد انطونيوس) (ط.2). بيروت: منشورات عويدات
- وزارة التربية الوطنية. (مارس 1993). مجموعة نصوص التوجيه الخاصة بتنظيم الحياة المدرسية. الجزائر: مديرية التوجيه والاتصال.
- وزارة التربية الوطنية. (1993). مجموعة نصوص التوجيه المدرسي والمهني من 1962 إلى 1992. الجزائر: ديوان المطبوعات المدرسية.
- ANZIEU, Didier. (1968) la dynamique de groupes restreints. Paris : p.u.f
- GILLES, Amado et GUI TTET, Andrée. (1993). dynamique des communications dans les groupes (2em éd).Paris : éd Armand colin
- LEVY, André. (1972). psychologie sociale (t o m e 1) . paris : dunod
- OLERON, Pierre et All. (1981). Savoir et savoir faire psychologiques chez l' enfant
Bruxelles :éd pièrre mardaga
- LEYENS, Jacques– Philippe. (1979). psychologie sociale (4em éd) .Bruxelles : éd pièrre mardaga.

MEDHAR, Slimane. (1992). tradition contre développement. ALGER : ANEP.