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# Intelligent Behavior and its Relation to the Technical Knowledge of University Students

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**Abstract:** ***The present study aims at knowing the level of smart behavior for university students and knowing the level of technical knowledge and knowing the statistically significant differences according to the variables of gender (male – female), and the major (scientific – human), as well as knowing the correlative coefficient between the smart behavior and technical knowledge for university students. The study sample includes (301) male and female student from scientific and human departments. The study instruments comprised of the scale of smart behavior (Al-Saffar, 2008) and the other is for technical knowledge (Marwan, 2008). The scale of smart behavior derived both the apparent validity and constancy by the test and retest method, while the scale of technical knowledge derived the apparent validity and constancy by the retest as follows: The university students enjoy smart behavior higher than the pattern of society. And there are statistically significant differences for the males and scientific major. The measurement of technical knowledge showed that students enjoy higher levels if knowledge than the society and that the difference in technical knowledge was more for the scientific major as far as the relation between the smart behavior and technical knowledge was positive and good.***

## 1. Research Problem

The great Islamic civilization constructed by the tireless advocacy methodology to measure thinking, And the Quran urged to think about creating the heavens and the Earth, and contemplated conduct is derived of the human soul. (Yolk, 2008:2)

And for thinking there are multiple benefits in terms of being actively used symbols, it helps and saves effort. (Abu hweij advocate, 2006, 13)

It also helps to predict the future, and life is when a series of events and situations that require thinking and practicing a number of forms and his skills, and perhaps all of intelligent behavior, or intelligent behavior it self (Rimawi, 2004:24)

That intelligent behavior does not constitute automatically, that must be learned, and gain skill, as it is a significant mental capabilities which must be owned by individuals, and that reflect the individual's knowledge which is renewed in knowledge not being a substitute for thought processes and competence and experience in thinking ' sitter Berg ' also says that the knowledge is important but it gets old, intelligent behavior skills, new left and is enabling us to gain knowledge, inference, knowledge is a basic rule in product intelligent behavior. (Two Pugs, 1999, And the author ' Allen ' (Alien. 2004) indicates that intelligent behavior is associated with the provision and delivery of knowledge to others and that the relationships and linkages between ideas, events become with ideas in context (how and why, where), associated with the ideas and other events. (Allen. 2004: P.2) . Zaiton also shows that the ' intelligent behavior ' is occupied by all the thought processes (comparison, analysis, heuristics, etc) and thought the thinking processes (problem solving, and decision making, beyond knowledge. etc) and not intelligent behavior is that represents intelligent behavior processes (remember and drafting promising). (Zaiton, 2003:86).

Furthermore Costa indicates that thinking is unnecessarily style behaviors through iteration process and therefore he founded the mind and also Berghanz sees intelligent behavior or performance style is skillful, intelligent behavior for the individual to productive actions. (Costa and wekalilk, 2005, 68).

Intelligent behavior calls for commitment to a number of mental strategies, because it based on a pedagogic maxims should emphasize development and converted to recurring behavior and static approach in the life of learner. (Novell and alrihani, 2008:66)

Bono indicates to the self which is considered as the intermediary activity of thought, the intelligent thinker or skillful needs to get his thinking from the ego) even noticed that clear thinking and noticed mistakes thinking hasty and quick answer, important conclusions to reach results. (Alsoror, 2005:137)

Horiman explains the intelligent behavior is looked like the rope that weaves his clues all day until it becomes thick and hard to piece and is therefore an evolutionary process with initial results lead to the production of ideas, problem solving, and intelligent behavior or skillful . (Costa & kalick. 2000: P12).

From this point of view the problem of current research lies. And there are many studies about these two variables (According to the view of the researchers to come up with an objective measurement tool suited to local environmental and serve students and workers in the field of tests and measurements.

## 2. Significance of research

For thinking there are several significant advantages in terms of being actively used, is appointed by and helps him to predict the future that thinking doesn't come suddenly without prior notices because it is cultivated and grown and

knows he must take care of the student learner and impart technical knowledge, skills and habits that form has the necessary scientific knowledge that interact with itself and to explore interactive with its environment including activities, including new knowledge generators phenomena appear bearing problems or generating a large number of ideas. (2000:26, denominator) causes intelligent behavior, or (intelligent behavior) plays a vital role in the success of individuals and their progress within the educational institution and academic assignments and exams. Students learn to think more opportunities for growth in abilities, and so is getting credit for intelligent behavior prudent betrays the intellect and everyone is aware of the relevance and effectiveness of the learning process, it also affected the student experience and knowledge has affect personality, compatibility and adaptability to the climate. (Metallic ribs is, 2003, 4).

Contemporary global society and scientific revolution made technology accelerates and amazingly in technological innovations that represent the most important features of the twenty-first century in the era of knowledge.

The importance of the current research on limited resources and rare on this subject and this research is expected to provide updated information to actively thinking and precise technique and thinking about them as contributing to knowledge as a diagnostic tool to help detect when students in the Iraqi environment, which is a prelude to their ingenuity by developing programmes and technical knowledge platform, which increases the importance of research now lack Arabic study associated with the current study variables (the albahathtan) the importance of research in Iraq in this current conditions to encourage university students to creativity and innovation in their specialties being the future leaders and build positive character they have and we say high confidence that technology is not groundbreaking or impossible, you need the creativity process technology is nimble thinking and behavior and terribly smart refers to individual creativity.

From the particular interest in technical knowledge which contribute to the pursuit of scientific discoveries and developments, innovations and technology which has impressive power for learning and technology, and for those who owns the corner evolution this all comes from the importance of science and technology to individuals and individuals and productive communities as an influential force in the labor market.

## 3. Research Aims

The current research aims to:

1) Know the level of intelligent behavior among college students.
2) Find out the level of technical knowledge among college students.
3) Check the statistically significant differences for smart thinking on gender variables male/female, specialty Science/human.
4) To check if there is a subjective differences statistically significant technical behavior according to gender variables and the specialization of male/female/scientific/human.
5) To check if there is a correlation in intelligent behavior and technical knowledge of University students.

## 4. Research Limits

The current research application has limited for the students of (basic education/education -Ibn Alhaithem ) in the morning studies for the academic year 2015/2016

## 5. Terms of the Research

Intelligent behavior: It defines by:

1) Horseman.:(Horesman.2000) quoting from kosna kalyke evolutionary process continue postponing them eventually leads to the production of ideas and development tendencies, trends and values (costa and kalich. 2005.66)
2) Matthew (Mathhew. 2004): is associated with the use and provide knowledge to others once they understand that knowledge contains a number of links between pieces of information when determining knowledge to its referendum. (Mathew.w. 2004 : 5)
3) Rodirgues: (Rodirguez. 2006) is awakening the mind algorithmic work based on cunning and resourcefulness. (Rodriguez. 2006.3)

The theoretical definition:
The two researchers have adopted definition of Alsafar , 2008

He defines the intelligent behavioral as (the person who has the expertise or skill using groups of (smart behaviors) than going to think flexibly and clearly and curiosity

**Procedural Definition for the researcher:**
Is a college degree which is obtained by answering sampled paragraphs intelligent behavior scale and intended for that purpose?

**Technical knowledge**
Defined by:

- (heinich etal. 1982) citing AL-Garraway as as formal application means the process of scientific knowledge.
- Knowledge of the Organization for missions or scientific purposes.

**Technical as products:**
Tools, equipment and materials resulting from the application of scientific knowledge: (ghazawi, 1987:12)

- Miller quoted from Sabri (2004):

Is the information relevant to understand the applications of science and engineering and its role in solving problems in everyday life. (My patience and entire, 2004:2)

**Definition of the two researchers :**
Researchers have adopted the definition Haniek and his fellow 1982 as citing by (Ghazzawi 1987).

**Procedural definition:**
It is the final degrees which are obtained by the students performance on technical knowledge test which was used in this research.

## 6. Previous Studies and the Theoretical Framework

### 1) Intelligent Behaviour

It's basically thinking about having a normal mechanism works to guide us towards achieving our business and achieve our goals.

And the thinking in everyday life is smart thinking leads us to growth in our expertise and knowledge result in deep understanding of the phenomena of our life and came to conclusions and make decisions wisely. And produce new ideas and to seek to know smart behavior or Sharpshooter. (Zaiton, 2003:85)

And (Allen 2004)indicate that intelligent behavior is associated with the provision and delivery of knowledge to others. Allen. 2004 :P.2))

Zaiton (2003) shows that intelligent behavior is occupied by both the thought processes (analytical comparisons), and intelligent behavior processes do not represent minimum thought processes (Zaiton, 2003:86)

So that we must say that intelligent behavior is intended to achieve a productions of individuals represented by 1-value 2-trends 3-sensitive 4- ability 5-commitment 6-politics.

And for smart thinking there are four main elements:
1) Examination of issues from all angles:
2) Divide the information critically.
3) Link the materials to content
4) Looking at the kinds of science and scientific or technical knowledge that they are two sides of the same coin. (allen. 2004: p2)

Alsoror (2005) refers to individuals to act on their smart thinking and behaviors needed for the cataloging of opportunities to develop and use their minds to raise performance and be more objective so that they can participate in free discussion (Alsoror, 2006:201)**Tools for intelligent behavior:**

Michael (2004) indicates that a variety of elements and tools and used by individuals in the exercise of thought processes and intelligent behavior is in desperate need of tools being analyzed for learners. On learning and teaching procedures approved can be likened to the ability to walk with the use of tools and can be summarized as follows visualization and imagination, concepts, symbols and signs, muscle activity, language, brain functions.

Alwan (2006) shows that smart people, they become aware of their thinking through a comprehensive review of the whole process: they are skilled in the use of knowledge and skills above which are using strategies to focus attention and memory in order to make decisions to accomplish any task (Alwan, 2006:2)

Components of intelligent behavior:
Costa and Wekalik (Costa and Wakalik. 2005) into a product of research that examined the smart and intelligent behavior actor thinking individuals, through research and scientific inquiry can determine these properties (behavior among individuals characterizing success in various aspects of an entity, including academics, teachers, business people, scientists and owners.

The main characteristics of intelligent behavior are:
1) Commitment to performing.
2) Not to accept defeat.
3) Use several strategies to solve the problem through experimentation.
4) Reduce stress and excitement/controlled recklessness.
5) Listen to others. (nofell and alrihawi, 2008, 86)

Al-Musawi believes that smart thinker qualities:
1) Has the power of persuasion.
2) Has the ability to extrapolate what he thinks others to offer solutions and alternatives.
3) Has the full map in dealing with others.
4) Understands the feelings of others.
5) Social acting tactfully and calmly. (almosawi, 2007:3)

To listen good listening and understanding with others and try to get them to a common base for work in social leadership and information sharing, and flexible thinking. (Adas, 2000:75).

Other features and qualities of intellectuals and intelligent people are:
1) To work thinking about thinking.
2) Fight for accuracy.
3) Find humor or humorous.
4) Ask and ask.
5) Applying past experience to new positions.
6) Spirit of adventure.
7) Originality and innovation survey.
8) Curiosity and readiness for continuous education

**Technical knowledge**
The highlight is the conscious possession of the capacity to invent machines to achieve different objectives, some are called to this era (technical era) and man made techniques rely on scientific knowledge and new technologies to help achieve the ability to control human behavior in different areas and that some of the achievements of modern technology make up the product and tool of mental training for contemporary human being and human future. (Abu zaideh, 2005, 88-89) that use various modern techniques lead to greater diversity in the methods of education, then the process of assimilation and upgrade skills knowledge of learners (Boser etal. 1998:P 1-9)

**Technical knowledge areas**
Dimensions technical knowledge mean facets or aspects of learning earned by the individual to be technically either technical knowledge areas indicate different fields using technology:

In the context of talking about technical knowledge areas renewed reference to the following areas:

Information technology/ communications/ technology education techniques and computers/space/biotechnology. etc.

**Dimensions of technical knowledge:**

1) The Cognitive Dimension:
   It means understanding the nature and characteristics of psychological principles, and their relationship to education and society and basic information on technical applications and ways of dealing with it. (Alhashemi, 2004, 49)
2) The practical dimension.
   This dimension includes the scientific skills required for technical and use handler, part of human activity and are necessary for survival, often called alnfgrket skills and is an important element of technical thinking which requires practical intelligence (Ossi and Hanseen. 2002. P4)
3) The Social Dimension:
   Include positive and negative social impacts that result from technology and applications to individuals and groups in social customs and traditions in order to protect society bye risk science and misinformation. (Marwan, 2008:80).

**Characteristics of technical knowledge**

1) Teh technical knowledge need a long time becaus e technical knowledge is of far-reaching goals.
2) Psychological knowledge include educational institutions outside of its psychological expertise account.
3) It involves all teachers in all curricula that they teaches it for the students.
4) Accelerated technical change.

**Measurement of technical knowledge:**

There are two sets of tests that measure the technical knowledge

1) Verbal Tests.
2) Performing Tests.

**Relationship of technical knowledge with some variables**

Many professions rely on gross motor skill activities, sensory, and running various technical devices requires sensory and cognitive processes, somatic functions and information processing operations, varied occupations in skill level of individuals, the ability of the main mechanical mental aspects that lead to decisions that have to do with tools and machinery (Alam, 2000:436-438)

As the aksgrkih skill continues as a series of movements coordinated mental performance, sprinkled flour and governing standards skills and movements (Mansour, 2003, 70-71) and psychological knowledge in this era is the key behind the success of use modern techniques and technical invention is characteristic of the times, for each element of innovative areas that support cognitive and mental tendencies then creative.

## 7. Previous Studies

Intelligent behavior: the researchers didn't find Arab or foreign studies about intelligent behavior only one study examining this subject which is Alsafar study in (2008) with title the Subtle thinking and its relationship to have knowledge and problem solving among college students.

Objective: the degree of reflection upon the skillful college students

Are there differences in the skillful thinking to students according to gender variables and specialization
Sample (415) students academics
Research tools measure subtle thinking (preparation of Alsafer , 2008)
Statistical methods/T-test one sample, to find the correlation analysis of multiple factors.
Study results: owning a sample search think deftly subtle thinking unaffected good sex and specialization (Alsafar , 2008, I-z)

**Studies of psychological knowledge:**

Scientific content analysis platform for technical culture in the light of the technical dimensions of tenth graders attained enlightenment.

Objective: to identify the dimensions of technical literacy among students in 10th grade, and detect the availability of the dimensions in the dimensions of technical education content

**Research tools:**

List of dimensions of enlightenment.
Sample: grade 10 students in the Gaza Strip where the list of (11 key item and (145) subheadings.
Study results: neglecting the curriculum satellite line regarding cognitive dimension, either regarding the emotional dimension it has omitted to platform 3 issues related to this dimension as care the slave racket as 100% truth proportion had (Aqul and Abu ' Ouda, 2007:107)

**Foreign Studies**

For the technical knowledge:

1) Ossi A utio & Ron Henseh(2002)
   Definition and measurement of technical thinking abilities of students in comprehensive schools in the country.
2) Study of Marwan (2008): technical creative thinking and its relationship to spatial perception, imagination, and technical knowledge of University students.

**Objectives of the study**

a) Know the relationship between research variables innovative thinking and spatial perception and imagination and psychological knowledge
b) Are there differences in the variables above have college students as a variable age sample search (310) inventor of the faculty of engineering at the university of damascus.

**Research Tools**

Research technical knowledge test questionnaire prepared int Marwan (2008)
Pearson correlation coefficient/statistical methods, variance analysis, multiple analysis of variance
Results: no statistically significant differences between the spatial and technical knowledge of the changing educational level.

1) There are featured positive correlation between technical knowledge and Spatial sample search.
2) wekanrol and Ross, 1978.
3) track students towards technical trends questionnaire prepared saw Woody Vries (1986), MAkan Velde (1992).

Sample:-(267) students from 5th grade-IX in Finland schools.

1) Study results:-in the field of technical thinking and improvement alnfsharki males to females.
2) Learn technical thinking than human reason in problem solving by analogy.
3) There are gender differences in technical departments and for males.

## 8. Research Procedures

This part of the research includes the procedures that are followed by the two researchers to achieve research objectives as follows:

First, the research community and research sample : it consists of the of students of fourth stages in the faculties of education in scientific and humanitarian disciplines (male and female) in the morning Baghdad University study and Almstnsarih university for the academic year 2013-2014, a random sample was selected from this multistage society (301) students, choose the categories in this random faculties by one section of each faculty and then chose one division of each section and the total male sample (110) and total female (191) total faculty students (136) and (165) and table 1 shows details of the sample search.

**Table 1:** Sample details

| Total | Female | Male | Department | Faculty | university |
|---|---|---|---|---|---|
| 39 | 25 | 14 | History | Education- Ibn Rushd | Baghdad |
| 125 | 63 | 62 | chemistry | Education- Ibn Alhaitham | |
| 40 | 40 | - | Arabic language | Education- for females only | |
| 57 | 39 | 18 | Geographic | Education | Almstnsarih |
| 40 | 24 | 16 | mathematics | Base Education | |
| 301 | 191 | 110 | | | Total |

Secondly: **Research tools:**
To achieve the objectives of the intended research , the requires tools are as follows:

**1) Intelligent Behavior Scale:**
Subtle thinking scale is used (intelligent behavior) prepared by the (Rafah of Mohamed Alsafar ) in 2008.
Scale consists of (60), placing each (5) alternatives (applies – apply to frequently – sometimes apply – apply to rare – does not apply) (accessory) distributed (14) feature of intelligent behavior:

1) Determination and perseverance.
2) Reduce stress and excitement.
3) Listen to others.
4) Cooperation in thinking (social intelligence).
5) Flexibility in thinking.
6) Thinking about thinking (beyond knowledge).
7) Accuracy and righteousness.
8) Humor and humor.
9) Display problem.
10) Past experience and applied in new situations
11) Spirit of adventure.
12) The use of senses.
13) Originality and creativity and foresight.
14) Curiosity or continuous learning

The corrected degrees for the paragraphed of the scale are consisted of downward scale passages grades (5, 4, 3, 2, 1) respectively for the positive paragraphs and degrees (1, 2, 3, 4, 5) for the negative paragraphs, and the highest degree which can be obtained by the student is (300) and lowest (60).

Psychometric properties has been extracted as validity and reliability by honestly through indicators measure stomach content and sincerity construction and consistency by using repetition of the scale and my test of Alpha cronpach.

**2) Scale of the Technical Knowledge**
Scale is used technical knowledge prepared by Marwan Ahmad in (2008) which consists of (25) paragraphes and before each paragraph five alternatives are (OK, OK, irresolute, fairs, exhibitions) and was given a score (5 4, 3, 2, 1) positive paragraphs (1, 2, 3, 4, 5) negative paragraphs, Nos (2, 5, 10, 12, 14) and medium scale loyalty (75) researcher has extracted fortitude to scale in a way the midterm test method hash and honesty in a way virtual structural honesty honesty. The researchers are executing the consideration of current validity and reliability of the scales as follows:

**a) Honesty**
Virtual honesty were extracted by two articles on a group of experts and specialists in psychology and psychometrics see extension (1), has got the approval of all the experts on all paragraphs after the adoption of the percentage as a criterion to accept or reject paragraph, as paragraph approved (80%) Most experts are keeping it on the scale.

**b) Persistence**
Done the test method and test for extracting the reliability of scales, applied on a sample of 60 students in the College of Education Sciences — alhaithaen – Department of computers and then reapply after a period of three weeks and

extracting relational relationship using the Pearson correlation coefficient between student scores on each measure in the two applications and have got intelligent behavior consistently value scale (0086) technical knowledge scale was stable value (0, 74) values are good stability, which is a constant measure if The stability factor (0.70) (Ahmad, 2000, 129).

**c) Statistical Methods**

The researcher were adopted the statistical methods as follows:

1) One Sample t-test:
   To identify the level of intelligent behavior and level of technical knowledge among college students.
2) Two independent t-test:
   To identify the differences in the level of intelligent behavior and level of technical knowledge among the students of the University in accordance with two variables, sex and specialization.
3) Pearson correlation coefficient:
   To identify the relationship between intelligent behavior of technical knowledge to extract the fortitude to scale intelligent behavior and technical knowledge test.

This includes research results and conclusions and recommendations and suggestions presented by the researchers as follows:

Search results: first goal: (identify the level of intelligent behavior among college students) to identify the level of behavior that are available in the college students which was extracted arithmetic for the students (208.25) and standard deviation (18,133) was mediocre this speculation to scale (180) and using a single sample t-test to identify the difference between arithmetic and intermediate teams proved this speculation with statistically significant level (0.05) and the degree of freedom (30), as she was very calculated t value (27,033) is greater than the value of table (1, 69), table 2 shows the details.

**Table 2:** One sample t-test results for the difference between the arithmetic and intermediate averages

| Significant level | Tabular t value | Calculated t values | Proposed mean | Standard deviation | Arithmetic mean | Sample number |
|---|---|---|---|---|---|---|
| 0,05 | 1,96 | 27,033 | 180 | 18,133 | 208,25 | **301** |

As shown in table (2) the statistically significant difference in favor of arithmetic mean , which means that the college students have above average intelligent behavior this speculation to scale this result can be explained by the circumstances in which he lived and unstable conditions students paid members of society in General and especially students to rethink everything in their path and find solutions to all that hinders their lives than being intelligent behavior.

Second objective: to identify the differences in the level of intelligent behavior among university students on as variables (gender-specialization).

To achieve this goal is the arithmetic averages and standard deviations for males and females separately and then check scientific and humanitarian, and then two independent t-test was used to identify the differences in these two variables and table 3 shows the details of that.

**Table 3:** The variation in the level of intelligent behavior according to gender and specialization

| Significant level | Tabular T value | Calculate T value | Standard deviation | Arithmetic mean | number | Sample | Variable |
|---|---|---|---|---|---|---|---|
| 0,05 | 96ر1 | 6,753 | 20,141 | 215,3 | 110 | male | Gender |
| | | | 22,001 | 200,9 | 191 | female | |
| 0.05 | 1,96 | 14,25 | 18,05 | 210,4 | 165 | Scientific | specialization |
| | | | 14.60 | 203,8 | 136 | humanities | humanity |

Table (3) explain the variation according with respect to the variable specialization and gender and t value which is calculated (6,753) is greater than the value of table t (1-96) when the level indication (0.05) and the degree of freedom (299), any difference in intelligent behavior under variable sex for males and this result can be explained that male according the complex social relationships and many that work on developing the intelligent behavior of the large deal with other people, attitudes and the need to conduct conforms to these positions and beyond.

As for the major variable, we find that t value computed (14, 25) is greater than the value of table t (1-96) when the level indication (0.05) and the degree of freedom (299) any statistically significant differences exist in the intelligent behaviour according to variable interest of scientific specialization students specialization, we can explain this conclusion it might be returning to the nature of specialization that requires finding behaviors fit their specialties in need of creative and innovative solutions to scientific problems of scientific theses.

Third objective: identify the level of technical knowledge among college students to achieve this goal has been extracted arithmetic to college students in the technical knowledge (66) and standard deviation (8, 14) and the proposed mean of the scale (75) after that one sample t-test is used to identify the difference between arithmetic and consignors this speculation has been demonstrated statistically significant difference exists at (0, 5) and the degree of freedom (300), t value was calculated (19,189) is greater than the value of table t (1, 96) and table (4) explains the details.

**Table 4:** One sample t-test results for the difference between the arithmetic and proposed mean

| Significant level | Tabular t value | Calculated t values | Proposed mean | Standard deviation | Arithmetic mean | Sample number |
|---|---|---|---|---|---|---|
| 0,05 | 1,96 | 19,189 | 75 | 8,14 | 66 | **301** |

Table (4) shown that the difference in favor of respondents, that college students have a higher than average technical knowledge this speculation and this result can be explained by the social relationships among students and that strong and complex note has contributed to the development of technical knowledge among college students, as this knowledge can share information about her as can be learned from the way other note and mimic their behavior as well as modern technical data imposed on individuals need to possess special knowledge to deal With her.

Fourth objective: identify the differences in the level of technical knowledge of college students on as variables (gender -specialization).

To achieve this goal is the arithmetic averages and standard deviations for males and females in the sample search both separately and then to the humanitarian and scientific specialty male and female both separately also using two independent t-test to identify the differences and reach results shown in table (5).

**Table 5:** The differences in the level of technical knowledge with gender and specialization variables

| Significant level | Tabular T value | Calculate T value | Standard deviation | Arithmetic mean | number | Sample | Variable |
|---|---|---|---|---|---|---|---|
| 0,05 | 1,96 | 11 | 13,11 | 62,14 | 110 | Male | gender |
| | | | 10,53 | 58,1 | 191 | Female | |
| 0.05 | 1,96 | 2,46 | 11,60 | 96,98 | 165 | Scientific | specialization |
| | | | 20,15 | 40.18 | 136 | humanity | |

Table (5) explained the details with respect to gender variable , The T value that is calculated is equal to (11) is greater than the value of table t (1,96) at the level indication (0.05) and the degree of freedom (299), there are differences in the level of technical knowledge as heterosexual for males and can be explained by the fact that college students are more than females because the females have done many home things as well as their studies compared with males, so they are better informed and treated with modern technologies as well as to the nature of male social relations contributed to their education Use techniques through the exchange of experiences.

As for the major variable, it appears that the calculated value of t (2, 64) is greater than the value of table t (1-96) when the level indication (0.05) and the degree of freedom (299) any statistically significant difference in technical knowledge as a variable interest of scientific specialization students specialization, this result was due to the nature of specialization imposed using various techniques which phase of technical knowledge in General

**Fifth objective: identify the relationship between intelligent behavior and technical knowledge of college students**

- To achieve this objective correlative relationship was calculated between students in intelligent behavior and technical knowledge using Pearson correlation coefficient correlation amounted (0.79) and are a good correlation coefficient value as most studies suggest trying to find a link relationship between two variables.
- This result can be explained by the technical knowledge to know unfamiliar and need special powers to deal with modern techniques and especially is sure to need intelligent behavior than normal behavior and fashionable.

## 9. Conclusions

1) Tech data has contributed to the development of technical knowledge among college students.
2) Internet may have played a major role in the development of technical knowledge among college students.
3) Intelligent behavior may be the biggest contribution to university students in the development of technical knowledge and motivation to a relationship between two variables.

## 10. Recommendations

1) Responsible universities need to use the technical knowledge at the service of research and development of scientific curiosity.
2) Faculty members in universities students need to urge the students to benefit from their behavior in intelligent knowledge service.
3) Competitions within universities aimed to highlight smart behavior skills among the students of the university.
4) Open training institutes that will contribute to the refinement of technical knowledge enjoyed by university students and use it purposefully and planned in the areas of scientific work on developing the skills and abilities of students

## 11. Suggestions

1) Make a conduct a study similar to the current search for comparison between university students and secondary students in the search variables.
2) Make studies similar to current research on the stages of other courses.
3) Make a cultural study of comparison between university students in Iraq and university students in other countries or foreign Arab search variables

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Intelligent behavior scale
Finalized
Dear student.

Greetings:
In front of you a scale consists of vertebrae indicate the kind of intelligent behavior. The resercher requests to answer the paragraphs marked () under one of the alternatives that apply to you from the five alternatives (applies always, often, sometimes, rarely, do not apply to) on the answer sheet as in the following

| Do not apply | rarely | sometimes | often | Applies always | paragraphs |
|---|---|---|---|---|---|
| | | | | | |

Please answer all paragraphs with honest and forthright promise to leave any paragraph unanswered note that this search is used only for research purposes so you don't need the name.
Gender
Male ☐ Female ☐

Specilization
Scientific ☐ Humanity ☐

With regards
The researchers

| Do not apply | rarely | sometimes | often | Applies always | paragraphs | c |
|---|---|---|---|---|---|---|
| | | | | | If it need to do job I ll do my best to achieve it | **1** |
| | | | | | I find it difficult to organize my thoughts when I'm having a problem | **2** |
| | | | | | Listen carefully to ideas posed by others | **3** |
| | | | | | Care one side when I face problem | **4** |
| | | | | | I find myself aware of my thoughts and my actions. | **5** |
| | | | | | Adopted in accidental problem on proper scientific reference | **6** |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | Life in constant change what happens in the past is not important the future. | **7** |
| | | | | | Find fun when solving puzzles or dilemmas | **8** |
| | | | | | I like ancient discoveries | **9** |
| | | | | | Trying so hard to get as much information. | **10** |
| | | | | | I get confused when I do my business | **11** |
| | | | | | I can rework the ideas of others with new ideas | **12** |
| | | | | | When I get to a solution to my problem not revisited. | **13** |
| | | | | | I have the ability to perceive all thoughts in my mind | **14** |
| | | | | | I find myself much erro | **.15** |
| | | | | | rs I find myself many errors | **16** |
| | | | | | I'd understand others my thoughts clearly | **.17** |
| | | | | | what you learned previously not associated with what I'm learning right now | **18** |
| | | | | | Look at things from specific angles | **19** |
| | | | | | That my love for the survey increases the life experience | **20** |
| | | | | | Trying to achieve my goals even when I faced difficulties | **21** |
| | | | | | Benefit from the ideas of others to correct some of my thoughts | **22** |
| | | | | | I put my work before plan implementation. | **23** |
| | | | | | The best work of spontaneity and spontaneous | **24** |
| | | | | | My experience help me in how to browse my problems. | **25** |
| | | | | | Work without limits or restrictions. Looked at it from one angle. | **26** |
| | | | | | When you hear new information, trying to get the sources to verify their authenticity. | **27** |
| | | | | | Finish what I started without feel tired | **28** |
| | | | | | I do my work without prior planning. | **30** |
| | | | | | Reconsider in the theme if you get a tip seriously. | **31** |
| | | | | | Difficult to identify strengths and weaknesses in my thinking. | **32** |
| | | | | | Prefer precision and clarity in my delivery. | **33** |
| | | | | | I'd solved the problem more than displayed. | **34** |
| | | | | | Compare Current information with previous information. | **35** |
| | | | | | Avoid competing with others. | **36** |
| | | | | | Give more than a solution to any problem. | **37** |
| | | | | | Trying so hard to get as much information. | **38** |
| | | | | | Solve the problem using The available solutions in front of me. | **39** |
| | | | | | Think well before I pronounce my verdict. | **40** |
| | | | | | Adopted my ideas only because I always right | **41** |
| | | | | | I think that my ideas are separated | **42** |
| | | | | | Try to make my ideas right | **43** |
| | | | | | I don’t know how to benefit from the previous ideas | **44** |
| | | | | | Depends on external resources to solve my problems | **45** |
| | | | | | I deals with only simple situations | **46** |
| | | | | | Looking for the strange things | **47** |
| | | | | | I think that discovering new things is curious | **48** |
| | | | | | I give myself space to think and solve the situation | **49** |
| | | | | | I except the opinions of others | **50** |
| | | | | | Depends on the writing communications | **51** |
| | | | | | I care about the abstract of the problem not the content | **52** |
| | | | | | Try to solve the current problems depends on the previous experience | **53** |
| | | | | | I dislike adventure | **54** |
| | | | | | I dislike the discussion with others | **55** |
| | | | | | I care about the obtained results | **56** |
| | | | | | I can manage in the difficult situations | **57** |
| | | | | | I reject all persons who are different with my opinion | **58** |
| | | | | | I treat with the situation from the different sides in order to solve the problem | **59** |
| | | | | | My steps in solving problem are not arranged | **60** |

Technical Knowledge scale
Please answer all paragraphs with honest and forthright promise to leave any paragraph unanswered note that this search is used only for research purposes so you don't need the name.

Gender
Male ☐ Female ☐

Specilization
Scientific ☐ Humanity ☐
With regards
The researchers

| معارض بشدة | معارض | متردد | موافق | موافق بشدة | العبارات | ت |
|---|---|---|---|---|---|---|
| | | | | | I can introduce amendments to the devices that I use | 1 |
| | | | | | my thoughts are traditional | 2 |
| | | | | | Have the efficiency than others at work | 3 |
| | | | | | have good ability to imagine. | 4 |
| | | | | | I need to instruct and guide others in the scientific field | 5 |
| | | | | | When you face a problem, I go back to scientific references first. | 6 |
| | | | | | I have good abilities and aptitudes for exploration and research | 7 |
| | | | | | I have the extraordinary ability to organize my ideas | 8 |
| | | | | | My ideas make others to think well | 9 |
| | | | | | stimulates my mind thinking of others have . | 10 |
| | | | | | I have an extraordinary capacity to access innovative ways to address problems | 11 |
| | | | | | follow the methods known to work and deal with others | 12 |
| | | | | | constantly can overcome psychological problems | 13 |
| | | | | | I have a good skills to overcome the problems | 14 |
| | | | | | I have new ideas in technical area | 15 |
| | | | | | It's easy to recognize the mistakes of others in my field | 16 |
| | | | | | I better than my colleagues in own employment information | 17 |
| | | | | | My friends Request my me for advice in my field | 18 |
| | | | | | Use the scientific instruments to the objectives were not designed for. | 19 |
| | | | | | Suggest new methods to study the idea | 20 |
| | | | | | I suggest new methods to old problems by using new perspectives | 21 |
| | | | | | Better to create something new than enter samples on something old | 22 |
| | | | | | I enjoy when I plan to do something new | 23 |
| | | | | | I have the ability to generate ideas in my field | 24 |
| | | | | | I defy difficulties that face me in my field. | 25 |

**Appendix (1)**
**The name of the experts who are revised the tools of the research**

| Affiliation | specialization | Name and scientific title | ت |
|---|---|---|---|
| University of Baghdad- College of Education – Ibn Alhaitham for pure science | Measuring and evaluating | Prof.Dr.Ehsan Elawe Naser | 1 |
| Almustanserya University-College of base education | Psychology guidance | Prof. Dr. Nashaa Karim AThab | 2 |
| University of Baghdad- College of Education – Ibn Alhaitham for pure science | Growth psychology | Associate Prof. Dr. Jamal Hamed | 3 |
| University of Baghdad- College of Education – Ibn Alhaitham for pure science | Educational psychology | Associate Prof. Dr.Fadhel jabar Jawdah | 4 |
| University of Baghdad- College of Education – Ibn Alhaitham for pure science | Educational psychology | Associate Prof. Dr. Laith Mohamed Ayash | 5 |
| University of Baghdad- College of Education – Ibn Alhaitham for pure science | Personality psychology | Associate Prof. Dr .Naji Mahmod Nahji | 6 |
| Almustanserya University-College of base education | Psychological Guidance | Associate Prof. Dr. Sadeea Dqrwesh | 7 |
| Almustanserya University-College of base education | Society science | Associate Prof. Dr. Zainab Hashim | 8 |