

Level of Wisdom-Based Thinking among the Educational Leaders at UNRWA Schools in Jordan

Dr. Saleh Mohammad Abu Jado

Dr. Mohammad Baker Nofal

Associate Professor of Educational Psychology
Faculty of Educational Sciences & Arts/UNRWA

Dr. Suad Ahmad Younes Mustafa

Ph.D. Graduate/Faculty of Educational Sciences
University of Jordan/ Amman

Abstract

This study aimed to investigate the level of Wisdom-Based Thinking among a sample of educational leaders at UNRWA schools in Jordan. The study sample consisted of (227) participants; (117) males and (110) females. To achieve the purpose of the study, the Wisdom-Based Thinking Scale (WBTS) developed by "Brown and Greene, "2006" was applied after verifying its psychometric features on the study sample. The results showed that the wisdom-based thinking score was generally high, and that there were no statistically significant differences attributed to gender. However, there were statistically significant differences between the responses of assistant head teachers and those of school supervisors on the following components: Judgment, life skills, willingness to learn, and on the study tool as a whole in favor of school supervisors. The results of the study also revealed no statistically significant differences attributed to the educational qualifications on all components as a whole, but there were statistically significant differences attributed to attending professional development training courses on the following components: altruism, inspiration, judgment, life skills, and willingness to learn. Moreover, the study showed that there is a poor inverse correlation between the respondents' age and their level of wisdom on the wisdom-based thinking scale.

Key Words: thinking, wisdom, educational leaders, UNRWA schools.

Introduction

Many educational systems around the world tend to adopt strategic options to ensure best quality of education. This trend is based on profound awareness considering students as the capital that shall be invested in a way that brings about considerable benefits to the society. In this respect, the educational reform initiatives around the world paid great deal of attention to this crucial human element.

The Department of Education/ UNRWA within its vision, mission, and strategic goals considers the educational leaders at UNRWA schools as core elements in all fields of human endeavor due to the vast scientific progress in information and communication technology. These changes have generated a variety of qualitative and quantitative problems in all domains of life the matter that has affected economies, societies and education in particular. It has increased the multiple and diverse challenges that face individuals, consequently responsibilities have increased qualitatively and quantitatively. The process of decision making has been complicated in light of the suggested alternatives to solve the problems facing the societies in the light of international quality standards that create a competitive spirit to achieve distinction and creativity in all types of products. So, a new reality has imposed continuous efforts to motivate mental abilities and translate them into appropriate behaviors. The real challenge of educational systems has become to prepare the individual who is able to deal with future challenges and interact positively with globalization and new innovations (The Department of Education, 2011).

The role of educational leaderships is critical in terms of ensuring that every child gets quality education. What make the role of educational leaderships vital to the success of educational systems are the many components of the educational processes.

Educational leaders in every school district are tasked with providing an environment of high expectations and with providing a vision for better teaching and learning and consequently guiding everyone toward realizing that vision (The Wallace Foundation, 2007).

Baltes and Kunzmann (2004) mentioned several ways of conceptualizing and studying wisdom based thinking. One is mostly informed by Western philosophy and it views wisdom as an analytic theory of extensive knowledge, judgment, and advice concerning every day's life experiences and choices. Another way of conceptualizing wisdom is to examine it in a nonreligious, empirical way. This approach is rooted in Asian philosophy and it views wisdom as tangible things created by wise persons. People are faced with the fact that they have to make choices on daily basis. Choices we make today may have consequences on our life tomorrow; therefore, making wise decisions becomes a very important issue. Schools are expected to provide students with the knowledge and tools needed to succeed in their lives; therefore, schools should strive to enhance students' wisdom-based thinking (Sternberg, Jarvin, and Grigorenko, 2009). Wisdom-based thinking received a lot of attention from researchers. The research work, which was done by Baltes and Staudinger (2000) at Max Plank institution in Berlin–Germany with backing from the Berlin Wisdom Project 1987, may be looked at as a breakthrough event in the wisdom research field on a global level.

Theoretical Background

The disagreement on absolute definition of wisdom-based thinking didn't deter researchers from further examining it. Furthermore, Western and Eastern religions and philosophies paid great deal of attention to wisdom (Takahashi & Overton, 2002). According to Brugmann's (2000) review of wisdom research, the first publication of wisdom studies was published in 1959. Considering that Clayton and Birren's (1980) work between 1976 and 1982, which was the first work to provide evidence that wisdom can be studied empirically, one can conclude that operationalized wisdom is a relatively new endeavor. Using the keyword "wisdom", Meekes and Jeste (2009) concluded that the number of articles on wisdom found on PubMed database search increased by sevenfold between 1970s and 2008. Two researchers, Baltes and Smith (2008) at Max Plank Institution in Germany looked at wisdom as an imaginary concept for a variety associated with the knowledge based on the Utilitarian philosophy, which is expected to produce good judgments when trying to comprehend different human experiences. Baltes and Smith emphasized the importance of wisdom in helping the individual adapt to different life changing situations and experiences. Although the subject of wisdom is as old as human civilization, studying it empirically didn't start until the 1970s (Birren & Svensson, 2005).

Conceptions of Wisdom-Based Thinking

It should be conceived that wisdom is not such a new concept as considered the offshoot of the present age of advanced technology. It is rather an old concept that overrides time, knowledge, and culture (Birren and Svensson, 2005). Due attention has been recently given to wisdom in present-day research, especially in gerontology and psychology, but its consistent definitions remain out of reach (Jeste, Ardel, Blazer, Kraemer, Vaillant and Meeks, 2010). Therefore, there is no commonly agreed upon definition of wisdom, although there are several different descriptions and rating scales that have been given for its assessment (Levenson, Jennings, Aldwin and Shiraishi, 2005). There are several definitions of wisdom category; Baltes and Smith (1990) defined wisdom as expert knowledge in the basic pragmatics of life that allows exceptional insights, judgments, and advice about complex and uncertain matters and expertise in life. However, Kunzmann (2004) defined wisdom as a perfect or even utopian integration of knowledge and character, that is, of mind and virtue.

Sternberg (1990, 1998) thinks of wisdom as the application of intelligence, creativity and knowledge that controls the tend to achieve the common positive values by making the balance between the social personal constituents of the individual and his additional personal interests in the environment in which he lives; in this sense, wisdom includes the process of adapting the features of life and choosing new one in different environments. Kramer (2000) suggests that wisdom be understood as: (1) a rare, highly exercised and developed form of cognitive, affective, and behavioral maturity which allows an exceptional degree of sensitivity, broadmindedness, and concern for humanity to come about.

It should also be noted that a considerable number of researchers have agreed that the concept of wisdom has different features, each one of which supports the other. Considered as such, wisdom was defined by Baltes and Staudinger (2000) as what extrapolates experience and meaning from life.

The definition they suggest, therefore, takes wisdom to consist of some other factors to be defined as the ability to understand human nature, the deep knowledge in dealing with the practical aspects of life and the insights in utilizing the means and ends to succeed. This would include the ability of listening, assessment, giving advice, as well as the high ability of making judgments, being aware of the limits of knowledge, the meaning of life, and of understanding the universe and its components in addition to making use of this knowledge for the improvement of oneself life and others life.

Shawqui (2006) maintains that wisdom involves the ability to issue the most convenient judgments concerning the subjects related to life and to choose the best means for the achievements of objectives. Similarly, Kazdin (2000) stated that wisdom should be taken as a form of the ideal human performance which involves insight, knowledge of the self and the World, as well as giving the right judgment on the hard problems of life. On their part, Bergsma and Ardel (2012) indicated that the cognitive aspect of wisdom is related to the desire to know the truth. However, this should not be taken to imply factual knowledge only but also a deep understanding of life, particularly on the levels of intrapersonal and interpersonal subjects.

In general, Ardel (2004) has come to the conclusion that wisdom will continue to be inaccessible, and that it must be understood as multidimensional. However, as Brown & Greene (2006) have pointed out, empirical research into wisdom paradigm has been promising, but there will be some problems relating to methods of performance based on wisdom, in addition to psychometric quality of measurement instruments.

Components of Wisdom-Based Thinking

According to Baltes and Staudinger (2000), the possession of wisdom, if considered from the historical, religious, and psychological perspectives, is made up of five main components. They are: (1) rich procedural knowledge concerning human nature and development, relationships, social norms and basic events of life; (2) rich factual knowledge about decision making, conflict resolution and importance of the achievements of objectives of life; (3) the recognition of life-span context, that is a wide temporal view of past, present and future life, as well as the awareness that there are many contexts of life; (4) the recognition that there are values and priorities, and the acknowledgment of the subjective status; (5) the ability to understand and manage what is uncertain, that is being ready to acknowledge the uncertain aspect of life.

Three dimensions of wisdom are stressed in Ardel (2004): they are (1) cognitive ability to understand a situation completely, knowledge of the positive and negative aspects of human nature, awareness of the inherent uncertainty of life and ability to make decisions in spite of that (2) reflective ability and willingness to examine phenomena from different points of view and avoidance of projecting one's own situation or feelings on others or blaming them for that, and (3) affective positive emotion and behaviors with no indifferent or negative emotions toward others and continuing to be positive when encountering a situation of diversity.

Six components of wisdom are identified in Meeks and Jeste (2009); these are included in several published definitions: (1) pro-social attitudes and behaviors (2) making social decisions and practical knowledge of life (3) emotional homeostasis (4) reflection and self-understanding (5) value relativism and tolerance, and (6) acknowledgment of ambiguity and uncertainty and positively dealing with them. Along similar lines, Webster (2007) set up wisdom scale made up of five components: (1) critical life experience (2) humor (3) openness (4) reminiscence, and (5) emotional regulation. In the epistemic theory, three basic components of wisdom are highlighted; these are: (1) meta-cognition, (2) uncertainty, and (3) ability for dialectical thinking.

Acquisition of Wisdom-based Thinking

The development of wisdom takes place through the process of "learning from life" in which people reflect, integrate, and apply to their lives the lessons they have learned, whether in or out of class. As to the conditions that contribute to the development of wisdom directly, they are a person's orientation to learning, experiences, and interactions with others. According to (Brown, 2004), these conditions take place in a particular direction and in a context that has an influence on a person's orientation to learning and development. Below are the factors which are important for the acquisition of wisdom:

1. **Age:** Despite of the lack of decisive evidence that wisdom grows as an indicator to age, some studies indicate its increase with the progress in age, but this could be based on the people's reflections which relates wisdom to old age. It is expected that old age gives the individual the opportunity to achieve deep and expert knowledge although this is not necessary to be true (Baltes & Smith, 1990).

Labauvie (1990) suggests that the total outcomes of his studies about wisdom do not prove that wisdom is related to old age or senility. It is shown in these studies that wisdom appears in the fourth or the fifth decade, Meacham (1990) adds that some children may demonstrate wisdom in their behavior, which means that wisdom exists in all ages but in varied degrees, therefore the more valid view is that wisdom does not grow necessarily as age passes. However, becoming an adult remains a necessary requirement for its growth.

2. **Motivation towards knowledge:** Active movement towards a target could enable the individual to reach it. Therefore, the growing motivation of the individual for gaining knowledge and for reaching wisdom and going along the right track increases the possibility of achieving that goal and reaching the targeted end. In the same context, some researchers such as Shawqui (2006), Baltes and Staudinger (2000), Takahashi and Overton (2000), emphasize that wisdom acquisition is the same as any other experience that requires a condensed learning process and a high motivation in addition to willingness to learn and to accumulate knowledge. There is logical evidence that supports this reflection: As long as wisdom in some of its meanings indicates to the wisdom based on experience that is employed in a wise procedure, this knowledge is the raw material for wisdom, consequently, low willingness to knowledge acquisition decreases the opportunities to attain wisdom.
3. **Professional experience:** The wide professional experience in practical domains creates a fertile climate to acquire wisdom, particularly in the case of intensive interaction for a long time with many people, and similarly the existence of various interactions between individuals is considered one of the facilitating factors of wisdom acquisition. Moreover, the daily life events, the wise practice and the openness to diverse experiences either at work or in life, are the most frequent predictors of wisdom (Shawqui, 2006; Kramer, 2000).
4. **Inference and critical thinking:** A person who enjoys a lot of skills of inference which means his ability to predict what might happen in the light of inferring reality indicators, to reach realistic conclusions about the events, making accurate judgments, knowledge of deficiency factors in what others say or do, the ability to analyze, to assess, to discover discrepancy, to prove pleas, all of these skills are necessary for a person to be wise. As for the role of intelligence on the level of wisdom, Baltes and Smith (2008) found out that intelligence is a stronger factor in predicting wisdom for adolescents rather than for adults. Kramer (2000) suggests that wise people are also found to think more dialectically, exhibit generativity and compassionate concern for others.
5. **Communication skills:** The existence of a considerable amount of communication skills, listening skills in particular and debating skills, are some of the skills a wise man should possess. Listening is an important element for acquiring experience from others, understanding them, sympathizing with them, giving them advice and consultation. Debating also enables the individual to understand and discover the points of weakness in other individual's pleas, convincing them of what he believes is right, accordingly communication skills are of the beams that support wisdom (Baltes & Smith, 1990).
6. **Cultural factors:** Nations with a deep-rooted history and civilized culture possess a large repertoire of wisdom represented in proverbs, stories, poetry, myths or legends, and wise sayings. This repertoire allows people to derive what they need to use in different life situations in a way that makes their behaviors wiser (Labauvie, 1990).
7. **Family upbringing:** The first demarcation line for the individual is family, therefore if wise educational approaches are available in the family context, they will allow the individual to acquire that wisdom features, and will implement this wisdom under his family supervision that may increase the possibility to become wise himself. Wisdom is well developed by experiences and fed by being exposed to wise models of behaviors by family members. In the light of this fact, the parents' awareness of its dimensions and being implemented in their daily behaviors with their children makes it more easy and possible to be transferred to children (Baltes & Smith, 1990).

Then, it is quite clear from what has been stated above that there are various factors that take part in the formation of the cognitive structure of wisdom. The analysis of the literature on wisdom concepts would make it clear that wisdom consists of a cognitive aspect and other factors of contemplation.

Some researchers have similarly described it as the integration between knowledge, reflection and effects of past experience, family upbringing, old age, deductive thinking and skills of interactive communication.

Brown's Theory

The present work is based on the theory of wisdom as advanced by Brown (2004). This theory is used as a framework to describe wisdom components and how the concept of wisdom was developed. There are eight components of wisdom in accordance with this theory as Greene and Brown (2009) have explained. These components are the following:

1. **Self-knowledge:** This factor explains the way in which an individual is expected to be aware of his strengths, weaknesses, values, interests and his intellectual beliefs.
2. **Emotional management:** This dimension describes how the individual is able to understand and manage his doubts, pressures and emotions and how he can keep up his strengths in an effective way.
3. **Altruism:** This is the dimension that describes how the individual is able to use his influence to serve others and respect them, how he can appreciate their virtues and is likely to modify his behaviors if he hurts them, how he learns from them, help them, sympathize with them, accepting them and appreciating their needs.
4. **Inspiration:** This is the factor that describes the ability of the individual to inspire others, and to provide them with useful advice, to overcome any problems that may obstruct their work, working as a model to them, being courageous, showing confidence in their abilities, extending pleas based on evidence, and getting in touch with them.
5. **Judgment:** This is the factor that explains the ability of the individual to understand and make sense of different philosophies and cultures in life, to be scientifically curious, to be pragmatic in making decisions, utilizing different aspects of learning, being aware of the impact of his vision on things, of his actions towards them as well as his ability to have relationships with others.
6. **Life knowledge:** This is the dimension that describes the relationships between people and the physical world, between what people know and the way they look at the universe. It accounts for regular contemplation, understanding the cycle of life, looking for profound meaning in life, considering potential contexts, assessment of all possible situations and accepting life with all its mysteries.
7. **Life skills:** It is the factor that describes the ability of the individual to manage time, pay due attention to priorities and morals of work, achieve goals, stand up to various commitments and good estimation of ends, make sensible decisions, and utilize opportunities of life and persist on crucial issues.
8. **Willingness to learn:** This is the dimension that accounts for the ability of the individual to recognize the need for knowledge pursuit, learning from experience, accepting change and positive criticism.

Greene and Brown (2009) have presented Brown's sample to clarify how wisdom of individuals develop through learning from life. This sample represents the core of learning processes through the individual reflection and as a result of his integration with three direct conditions for facilitating wisdom development: tendency to learning, experiences and interaction with others. To develop the individual's tendency to learning these conditions must be taken to operate within contexts and in parallel with contextual effects because it is context that provides experiences to the individuals.

Tendency towards learning indicates the commitment level and the power the individual acquired from knowledge as he faces activities in his own way or through participation with others. This implies a general orientation towards life or more specified attitudes towards the person's past and new experiences. Interaction with others includes all experiences with them in general and the experiences with different and more effective people in particular. Environment consists of general situations and the contexts they provide where the individual heads for learning. The diversity of expertise in combination with interaction with others at various levels produces wisdom (Baltes & Staudinger, 2000).

Research Problem

The current study investigates the following main question: What is the level of wisdom-based thinking among a sample of educational leaders at UNRWA schools in Jordan? The following sub questions emerged from this main question:

1. What is the level of wisdom-based thinking in a sample of educational leaders at UNRWA schools in Jordan on the wisdom scale?
2. Are there statistically significant differences at level ($\alpha \geq 0.05$) in the level of wisdom-based thinking attributed to the gender (males or females) on the wisdom scale?

3. Are there statistically significant differences at level ($\alpha \geq 0.05$) in the level of wisdom-based thinking attributed to the occupational post (head teacher, assistant head teacher, and educational supervisor) on the wisdom scale?
4. Are there statistically significant differences at level ($\alpha \geq 0.05$) in the level of wisdom-based thinking attributed to the academic degree (B.A, M.A or higher) on the wisdom scale?
5. Are there statistically significant differences at level ($\alpha \geq 0.05$) in the level of wisdom-based thinking attributed to the years of experience (1-5 years, 6 years or more) on the wisdom scale?
6. Are there statistically significant differences at level ($\alpha \geq 0.05$) in the wisdom-based thinking attributed to attending specialized courses in the study sample (no courses attended, more than three courses attended) on the wisdom scale?
7. Is there a significant correlational relationship at level ($\alpha \geq 0.05$) in the level of wisdom-based thinking and the age on the wisdom scale?

Significance of the Study

The significance of the current study stems from the fact that it is the only study which has attempted to investigate the wisdom-based thinking level among UNRWA educational leaders in light of Brown's Theory (Brown, 2004) which is considered one of the most genuine theories in the domains of thinking and wisdom. Applying wisdom-based thinking to a sample of educational leaders at UNRWA schools in Jordan may lead to spread out this scale among educators, and attract attention to wisdom-based thinking whose conceptions and levels are expected to spread out among leaders and decision makers at UNRWA schools. This study may, therefore, represent the basis for many research works to be conducted in the field of wisdom-based thinking whether inside or outside Jordan. Moreover, the findings of this study may attract the attention of more researchers to this type of thinking to be popularized among educationists by designing developmental programs for teaching wisdom and its skills. In the light of this research, it is expected that researchers start to build a battery of tests to measure wisdom-based thinking components for different categories of students, teachers and other educators in the Arab World or abroad.

The Limitations of the Study

The outcomes of this study may be generalized in light of the following limitations:

1. The scale used in collecting information is the wisdom-based thinking scale developed by Brown & Greene (2006).
2. The study sample was restricted to a sample of educational leaders working at UNRWA schools in Jordan for the scholastic year (2011/ 2012).

Research Definitions

The following definitions are adopted for the purpose of this study:

1. **The level of wisdom-based thinking:** This is represented in the score achieved by the educational leader on the wisdom-based thinking scale that is customized to suit the Jordanian environment and is based on Brown's theory (2004). This scale consists of the following eight domains: Self-knowledge, emotional management, altruism, inspiration, judgment, life knowledge, life skills and willingness to learn.
2. **Educational leaders:** Including, all head teachers, assistant head teachers or educational supervisors working at UNRWA schools in Jordan.
3. **UNRWA Schools:** Schools run by the United Nations Relief and Works Agency (UNRWA) for Palestine refugees in the Near East. UNRWA was established in accordance with the United Nations General Assembly's resolution (302) on 18 Dec 1949.

Related Literature Review

In his study titled "*Towards a universal understanding of wisdom: The historical roots in the East and West*", Takahashi (2000) has investigated the wisdom-based thinking. This is a cross-cultural study designed to test age and two wisdom patterns: the analytical type and the structural type. The subjects of the study were (86) Americans and (68) Japanese divided into two groups.

The subjects of the first group were of the age average of (45.3) years, and those of the second group were of the age average of (70.1) years. The investigation concluded that the wisdom level of the elderly individuals is higher than that of the middle aged group according to the wisdom pattern based on analytical and structural thinking, and the particular cultural effects on each wisdom scale dimensions. The study also advanced general discussions on how wisdom is used as a developmental concept. Takahashi's study aimed to set up a psychological concept for wisdom, and set out to define wisdom as a form of analytical ability that boosts knowledge base and leads to a higher proficiency of data processing.

In Takahashi & Bordia (2000), a study was conducted to investigate the conception of wisdom through multicultural samples including Americans, Australians, Indians and Japanese. The subjects were asked to judge seven features of a wise individual: old age, alertness, suppression, experience, intuition, cognitive ability and wisdom. A scale of multi-dimensions was used to achieve the objectives of the study by analyzing different approaches among samples of Americans and Australians to represent western cultures. The eastern culture was represented in the Indian and Japanese. The results indicated that western samples were distinguished in the following features: wisdom, concealment, experience and cognitive ability, while samples of eastern cultures showed the following features: wisdom and concealment. Additionally, it was clear that samples of western cultures chose the features of wisdom and cognitive ability as their ideal favorite features, whereas eastern samples showed a variety of features. The results of the study revealed that there is a difference between western and eastern cultures as regards to the features in question.

In an empirical study, Ardelt (2003) aimed to evaluate a scale of three dimensions. Both qualitative and quantitative approaches were used by conducting interviews with samples of 52- year-old individuals to develop the three-dimension scale, and seek to test validity in revealing the level of wisdom for elderly individuals. Variables of potential knowledge, reflection, and emotional factors were measured. The subjects of the study subjectively responded to the wisdom scale which consisted of 14 items to measure knowledge, 12 items to measure reflection and 13 items to measure emotional components of wisdom. The results revealed that it is possible to view wisdom on three-dimension scale as highly reliable as in a wide survey processes for elderly people.

In a study titled "Wisdom charm; Nature, baby phase and functions", Baltes and Smith (2008) stated that the development of wisdom was noticeably weak among younger youths who participated in their study. They also indicated that age was not a real prediction factor since knowledge-based wisdom and judgments are skills that people acquire in performing psychological and social functions and in their total experience as a whole.

In their study, Greene and Brown (2009) aimed to develop a scale for investigating the psychometric characteristics of wisdom. This study was based on the pattern of wisdom developed by Brown. Having their study based on this pattern, the researchers developed a tool for measuring the development of wisdom and sought to ensure its construct validity and reliability. To achieve the objectives of the study the scale was applied to a sample of (3000) subjects, and was on-line distributed. The subjects of the study were divided into two groups: the group of experts and the group of university students. Statistical analysis was carried out to support construct validity and reliability. It worth noting that the current study is based on the scale developed for Greene and Brown's study.

A group of researchers, Dilip, Monika, Dan, MPH, George, and Thomas (2010), conducted a study titled "Experts' Unanimity on the features of wise individuals". They aimed to enhance applied research understanding, particularly in the gerontology domain and psychology. The study sought to achieve the best description for wisdom through the unanimity of Delphi team in two phases. A scale of 53 items relevant to wisdom conception was used for this purpose. Intelligence and spiritual concept formed two essential components of the definition of wisdom conception.

A team of international experts consisting of 57 members renowned for their studies and research in the domain of wisdom was constructed and on-line contacted. Thirty experts completed the first stage, while twenty seven completed the second one. As indicated by the experts, the results revealed significant statistical differences between the perception of wisdom composed of intelligence and spirituals in 49 items out of 53. Wisdom composed of intelligence was different in 46 items out of 49, and wisdom composed of spirituals was different in 31 items. In the second stage, the study sought to define wisdom by selecting 12 items as based on the results of the first stage.

Most of the experts agreed upon several features or characteristics of wisdom such as the following: wisdom is a characterizing feature for mankind; wisdom needs previous knowledge and emotional development that leads to experience; wisdom is specific to the person's gender; it increases with age, and is measurable; wisdom is learnable and unlikely to improve by taking medicine.

Upon reviewing the relevant literature it is clear that due attention has been recently paid to wisdom-based thinking as one of thinking patterns. The present study is to add a complementary investigation of wisdom-based thinking in the Arab World where such a line of research has not been in vogue. It is an attempt to identify the wisdom level of leaders at UNRWA schools for their vital role in managing and developing the educational process. It should therefore be taken to enrich the research literature in the domain of wisdom-based thinking in general and the thinking level of educational leaders at UNRWA schools in particular.

Methodology and Procedures

Population:

The study population included all school head teachers, assistant head teachers, and educational supervisors in the four educational districts in Jordan, and the Education Development Centre (EDC). The total number of the study population was (378) educational leaders in accordance with the education program statistics for the scholastic year (2011/2012).

Sample:

The study sample consisted of (227) educational leaders who were randomly selected from among the four UNRWA educational districts and the EDC in Jordan. Table (1) demonstrates the distribution of the study sample according to the study variables:

Table (1): Sample distribution according to occupational post, gender and qualification variables

Post	Gender	Qualifications		Total
		B. A	M.A & above	
School Head teacher	Male	54	13	67
	Female	44	17	61
Assistant Head teacher	Male	36	6	42
	Female	26	15	41
Educational Supervisor	Male	4	4	8
	Female	4	4	8
Total		168	59	227

The Instrument of the Study:

The scale used in this study consists of (66) items distributed among eight sub-domains, and arranged in a sevenfold graded distribution (1-7), and so the total scores ranges between 66– 462.

Table (2): Items distribution of the wisdom scale

No	Dimension/domain	Items Total	Item numbers
1	Self-knowledge	4	1, 5, 7, 10
2	Emotional management	5	6, 11, 15, 28, 46
3	Altruism	12	53, 55, 9, 12, 16, 21, 25, 30, 37, 43, 48, 51
4	Inspiration	10	19, 23, 33, 35, 40, 56, 60, 62, 64, 66
5	Judgment	8	22, 27, 31, 45, 47, 50, 57, 59
6	Life knowledge	11	2, 13, 20, 26, 32, 34, 38, 42, 54, 61, 65
7	Life skills	11	3, 4, 8, 17, 18, 24, 29, 36, 49, 52, 63
8	Willingness to learn	5	14, 39, 41, 44, 56
	Total	66	

Psychometric Features of the Original Scale

Brown and Greene (2006) investigated the construct validity, the criterion validity and the scale reliability using Cronbach Alpha through the achieved signs in a study sample of (3000) participants divided into two separate groups; The first group: Professional administration staff. The second group: University students. Investigating the construct validity and reliability was carried out through individuals of both groups.

The analysis of the potential averages revealed a discriminant prediction between the two groups through evidences relevant to the criterion validity.

For the purpose of answering the questions of this study, this scale was customized to suit the Jordanian environment through translating the scale into Arabic. The translation into Arabic included (66) items which were revised, checked and amended in terms of formulation and language. Then, the scale psychometric features were investigated according to the following procedures:

Validity

Scale validity was investigated through two methods:

1. **Judges validity:** To investigate the items clarity and its suitability to the Jordanian environment, the scale was presented to five judges from the educational faculties at the Jordanian Universities. In the light of the results obtained by the judges; the first version of the scale was revised and some items were amended related to the translation accuracy from English into Arabic, the items clarity and the extent they were suitable for measuring wisdom-based thinking. Amendment was carried out according to the judge’s views. The scale maintained its (66) items distributed among eight dimensions.
2. **The construct validity:** Construct validity of the wisdom-based thinking scale was investigated by applying the scale to the exploratory sample of the study and finding out the correlation factors between scores on the items and the scores on the domains they belong to. Table (3) shows these results:

Table (3): Significance of construct validity of the study tool using correlation factors between scores on the items and the scores on the domains they belong to

Items	Self - Knowledge	Emotion-al Management	Altruism	Inspiration	Judge-ment	Life knowledge	Life skills	Willingness to learn	Overall
1	*0.64								
5	0.77*								
7	*0.78								
10	*0.77								
6		*0.70							
11		*0.74							
15		*0.75							
28		*0.64							
46		*0.55							
9			*0.49						
12			*0.60						
16			*0.52						
21			*0.70						
25			*0.70						
30			*0.69						
37			*0.67						
43			*0.65						
48			*0.69						
51			*0.73						
53			*0.70						
55			*0.64						
29				*0.48					
23				*0.51					
33				*0.54					
35				*0.51					
40				*0.52					
56				*0.53					
60				*0.65					
62				*0.52					
64				*0.59					
66				*0.55					
22					*0.57				
27					*0.71				
31					*0.59				
45					*0.73				
47					*0.76				

50					*0.76				
57					*0.67				
59					*0.64				
2						*0.51			
13						*0.49			
20						*0.62			
26						*0.66			
32						*0.63			
34						*0.62			
38						*0.66			
42						*0.55			
54						*0.55			
61						*0.52			
65						*0.60			
3							*0.65		
4							*0.53		
8							*0.62		
7							*0.59		
18							*0.69		
24							*0.66		
29							*0.67		
36							*0.60		
49							*0.67		
52							*0.68		
63							*0.51		
14								*0.55	
39								*0.73	
41								*0.74	
44								*0.67	
58								*0.65	
									*0.67
									*0.73
									*0.91
									*0.81
									*0.89
									*0.88
									*0.92
									*0.84

* Indicant on the significant level ($\alpha = 0.01$)

It is clear from table (3) that the correlation factors of each item in the domain belonging to were of statistical significance at level (0.01). These results reflect the construct validity tool.

Reliability: The reliability of the wisdom-based thinking scale was investigated using two ways:

1. **The internal consistency:** the scale reliability was detected by Cronbach Alpha on the exploratory sample.

Table (4) shows the correlation factors:

Table (4): The reliability factors

Domain	Number of items	Reliability factor
Self-knowledge	4	0.716
Emotional management	5	0.709
Altruism	12	0.875
Inspiration	10	0.574
Judgment	8	0.883
Life knowledge	11	0.806
Life Skills	11	0.839
Willingness to learn	5	0.736
Total	66	0.956

It is noticed from table (4) that reliability factors for the dimensions ranged between 0. 574 and 0.883, whereas the total reliability factor for dimensions reached (.956) which are all acceptable indicators for the sake of scientific research.

2. **Reliability Split-Half method:** The scale reliability was detected by using the split-half method in the current study sample. Table (5) shows the correlation factors:

Table (5): The reliability factors for the wisdom-based Thinking scale via split-half method

Domain	Corrected hemi factor of stability
Self-knowledge	0.693
Emotional management	0.538
Altruism	0.823
Inspiration	0.454
Judgment	0.774
Life knowledge	0.688
Life Skills	0.791
Willingness to learn	0.735
Overall	0.894

Table (5) shows that the corrected reliability factor of the scale reached (0.894). The sub-reliability factors ranged between (0.454 – 0.823) which are all sufficient indicators for the scale reliability.

Release of the Final Version:

The items were revised in this step, and the scale instructions were revised as well in a way that makes its purpose clear. At the end of this step, the scale was ready for application.

Scale Application:

This step includes applying the study tool (wisdom scale) on the study sample, working out the scores and studying the effect of the study variables on it.

Methodology of the Study:

This is a descriptive surveying one including a basic variable, namely the wisdom-based thinking with its eight domains. These are expressed through the scores obtained by the participants on the scale tool developed for this purpose. The study included the following variables:

The Independent Variables:

1. The gender of the study sample: It has two levels (male and female).
2. The occupational post: It has three levels: (head teacher, assistant head teacher, and educational supervisor).
3. Qualifications: It has two levels (B.A, M.A or +)
4. Specialized courses in wisdom-based thinking with two levels (Attended no courses /attended more than three courses).
5. Age variable: (1–5 years, 6 years and more).

The Dependent Variable:

1. The Level of wisdom-based thinking that consists of eight levels: Self- knowledge, emotional management, altruism, inspiration, judgment, Life knowledge, life skills, and willingness to learn. These levels are expressed by the scores obtained by the participants on the wisdom-based thinking scale developed by Brown and Greene (2006).

The Study Procedures:

1. The study sample was selected according to its variables.
2. The tool of the study was distributed to the individuals of the sample, and there was a follow up of the filling procedures and the handing back process.
3. The information was fed to the computer memory and processed by using the statistical parcel (SPSS) in order to answer the questions of the study.

Results and Discussion:

The results of the first question: What is the level of the wisdom-based thinking for the educational leaders at the UNRWA schools in Jordan on the wisdom scale?

To answer this question, the means, standard deviations, and the percentage of the means of the students' scores in each domain of the wisdom-based thinking measured by the study tool were calculated, as shown in table (6).

Table (6): Means and standard deviations of the students' scores on each domain of the wisdom-based thinking scale and on them as a whole

Number	Dimension	Number of students	Mean	Standard Deviation	Percentage of Means
1	Self-knowledge	227	23.02	2.28	82.21
2	Emotional management	227	27.02	4.07	77.20
3	Altruism	227	68.14	9.82	81.12
4	Inspiration	227	55.70	8.53	79.57
5	Judgment	227	43.96	6.56	78.50
6	Life knowledge	227	60.07	7.63	78.01
7	Life Skills	227	61.23	8.14	79.52
8	Willingness to learn	227	27.51	4.57	78.60
	Overall	227	366.66	44.96	79.36

Table (6) shows that the wisdom-based thinking scores were high in general. The mean of the test was (366.66) out of (462) that equals (79.36%) and the Standard Deviation was (44.96). It shows also that the wisdom-based thinking scores on the eight domains were descending arranged as follows: Self knowledge, altruism, life skills, inspiration, willingness to learn, judgment, life knowledge, and emotional management. This result may be attributed to the high criteria of selecting the educational leaders in terms of academic qualifications, professional experience. Moreover, all candidates selected for leadership posts are enrolled in a one year in service course includes educational, psychological and professional topics to develop and promote their relevant knowledge and skills.

The results of this study differ from the results of Baltes & Smith (2008) which revealed a weakness in wisdom development, and it revealed that knowledge-based wisdom and judgment are skills acquired as psychological and social functions and as an entire experience.

The Results of the second question: Are there significant statistical differences at level ($\alpha \geq 0.05$) in the wisdom-based thinking level attributed to gender (males and females) on the wisdom scale? To answer this question, the means and the standard deviations of the study sample were calculated on each dimension of the wisdom-based thinking scale according to the gender variable and test results for independent samples were worked out to reveal the significance between the means. Table (7) shows these results.

Table (7): Means and standard deviations of the scores achieved by the study sample on each dimension of the wisdom-based thinking according to gender, and on the domains as a whole, and (t) test results

Dimension	Gender	Number	Mean	Standard Deviation	" t" Value	Significance Level
Self-knowledge	Male	117	22.64	3.14	-1.48	0.068
	Female	110	23.45	3.39		
Emotional management	Male	117	26.62	3.85	-1.54	0.125
	Female	110	27.45	4.28		
Altruism	Male	117	68.14	8.79	0.000	1.000
	Female	110	68.14	10.58		
Inspiration	Male	117	55.5	6.38	-1.162	0.274
	Female	110	56.38	10.02		
Judgment	Male	117	43.73	5.84	-0.549	0.584
	Female	110	44.21	7.28		
Life knowledge	Male	117	59.28	6.91	-1.611	0.109
	Female	110	60.91	8.29		
Life Skills	Male	117	60.93	7.43	-0.52	.568
	Female	110	61.55	8.88		
Willingness to learn	Male	117	27.31	4.48	-0.661	0.509
	Female	110	27.2	4.68		
Overall	Male	117	363.71	41.08	-1.015	0.311
	Female	110	369.80	48.744		

Table (7) shows that there are no significant statistical differences at level ($\alpha \geq 0.05$) between the means of the males' performance and the means of the female performance in the study sample in all dimensions of the wisdom-based thinking scale. It shows also that (t) value of the differences between averages of all dimensions was (- 1.015) which indicates no significant differences. This result may be attributed to both males and females who work at UNRWA schools, living under the same conditions, and their commitment to the UNRWA regulations. In addition to this, both genders are subject to the same professional training at the Education Development Centre. Moreover, the results may be attributed to the wisdom components included in the scale used in this study which have most wisdom components from a universal perspective; therefore it is not strange that both males and females are in agreement. Attention to the wisdom acquisition determiners may explain that motivation, professional experience, the practice of high logical inference and critical thinking skills are of the factors contributing to the lack of differences between both genders concerning the wisdom-based thinking level. However, there were no previous studies found, differing or agreeing with the results related to the second question in this study.

The Results of the third question: Are there significant statistical differences at level ($\alpha \geq 0.05$) in the wisdom-based thinking attributed to the occupational post (Head teacher, assistant head teacher, and educational supervisor) on the wisdom scale? To answer this question, the means and the standard deviations of the study sample were calculated on each dimension of the scale and on all items as a whole according to the occupational post (head teacher, assistant head teacher, and educational supervisor). Table (8) shows these results.

Table (8): Means and standard deviations of the scores achieved by the study sample on each dimension of the wisdom scale according to occupational post (Head teacher, assistant head teacher, and educational supervisor)

Dimension	Occupational post	Number	Mean	Standard Deviation
Self-knowledge	head teacher	128	23.06	3.20
	assistant head teacher	83	22.74	3.54
	Educational supervisor	16	24.19	2.07
Emotional management	head teacher	128	27.18	4.16
	assistant	83	26.55	4.13
	Educational supervisor	16	28.25	2.72
Altruism	Head teacher	128	68.77	9.78
	Assistant head teacher	83	66.71	10.46
	Educational supervisor	16	70.50	5.00
Inspiration	Head teacher	128	56.36	7.49
	Assistant head teacher	83	54.23	9.71
	Educational supervisor	16	58.00	5.05
Judgment	Head teacher	128	44.28	6.57
	Assistant head teacher	83	42.84	6.76
	Educational supervisor	16	47.19	3.83
Life knowledge	Head teacher	128	60.76	7.83
	Assistant head teacher	83	58.58	7.54
	Educational supervisor	16	62.31	5.01
Life Skills	Head teacher	128	61.73	7.92
	Assistant head teacher	83	59.67	8.56
	Educational supervisor	16	65.31	5.96
Willingness to learn	Head teacher	128	27.72	4.59
	Assistant head teacher	83	26.67	4.63
	Educational supervisor	16	30.06	2.86
Overall	Head teacher	128	369.85	45.01
	Assistant head teacher	83	358.85	46.46
	Educational supervisor	16	385.81	24.74
		227	366.66	44.96

Obvious differences in performance on the scale dimensions from table (8) are noticed. In order to know if these statistical differences between the means for the subjects' responses attributed to the difference in the occupational post (head teacher, assistant head teacher, and supervisor), the results of ANOVA were calculated to reveal the difference significance between means on each dimension. Table (9) shows these results.

Table (9): Results of ANOVA test for the significance difference between means on the scale dimensions according to the occupational post (Head Teacher, Assistant Head Teacher, and Educational Supervisor)

Dimension	Variation source	Sum Squares	Freedom grades	Squares Mean	" F " Value	Significance level
Self-knowledge	Between groups	28.22	2	14.11	1.316	0.270
	Inside groups	2401.62	224	10.77		
Emotional management	Between groups	45.47	2	22.37	1.373	0.255
	Inside groups	30708.37	224	16.55		
Altruism	Between groups	308.74	2	154.37	1.609	0.202
	Inside groups	21486.03	224	95.92		
Inspiration	Between groups	319.19	2	59.95	2.220	0.111
	Inside groups	16138.12	224	72.04		
Judgment	Between groups	283.37	2	141.68	3.356	0.037 *
	Inside groups	9457.28	224	42.22		
Life knowledge	Between groups	325.70	2	162.85	2.841	0.060
	Inside groups	12839.17	224	57.32		
Life skills	Between groups	495.90	2	247.95	3.828	0.023 *
	Inside groups	14508.72	224	64.77		
Willingness to learn	Between groups	164.44	2	82.22	4.040	*0.019
	Inside groups	4558.28	224	20.35		
Overall	Between groups	13328.46	2	6664.22	3.365	*0.36
		1980.22	224	443568.40		
			226	456896.90		

* Indicated on the significant level ($\alpha = 0.05$).

It is noticed from table (9) that there are significant statistical differences at the level ($\alpha = 0.05$) on three scale dimensions: Judgment, life skills and willingness to learn attributed to the difference in occupational post (head teacher, assistant head teacher, and educational supervisor) and the total score. To identify the sources of these differences, the results of Scheffe test for dimensional comparisons were worked out. Table (10) shows these results.

Table (10): The results of Scheffe test for post comparisons of the differences between means on judgment, life skills and willingness to learn dimensions

Sub-dimensions	Variable levels	Head teacher	Head teacher	Head teacher
Judgment	head teacher	-	1.44	-2.91
	Assistant	-	-	-4.34
	supervisor	-	-	-
Life skills	head teacher	-	2.04	-3.95*
	Assistant	-	-	5.63*
	supervisor	-	-	-
Willingness to learn	head teacher	-	-1.02	-2.34
	Assistant	-	-	3.36*-
	supervisor	-	-	
Overall	head teacher	-	11.80	-11.96*
	Assistant	-	-	-27.76*
	supervisor	-	-	-

* Indicated on the significant level ($\alpha = 0.05$).

Table (10) shows that differences were of a statistical significance between the assistant head teacher's responses and the educational supervisor's responses on each of the following dimensions: Judgment, life skills, willingness to learn and on the tool of study as a whole in favor of the educational supervisor in each dimension.

This result may be attributed to a variety of factors. Most educational supervisors at the UNRWA are selected after they have acquired minimum experience of no less than seven years in addition to a high qualification degree and distinguished performance at work. Furthermore, most educational supervisors of the UNRWA worked as head teachers; as a result, this experience enables them to acquire a lot of wisdom-based thinking factors in comparison with other peers of head teachers and assistant head teachers. Perhaps, this may, indicate that those supervisors have analytical and structural thinking skills which distinguish between them and their peers of school head teachers and assistant head teachers. These results partially conform with the study of Takahashi (2000) which revealed the degree of the cultural variation in wisdom acquisition in regard to acquiring the two patterns of thinking whether related to the analytic thinking pattern which is of the left brain hemisphere abilities or the structural thinking pattern that is of the right brain hemisphere abilities.

The Results of the fourth question: Are there significant statistical differences at the level ($\alpha = 0.05$) in the wisdom-based thinking level attributed to the qualification (B. A. or M.A. or higher) on the wisdom scale? To answer this question the means and the standard deviations were calculated for the study sample on each dimension of the wisdom-based thinking scale and on them collectively according to the qualification variable (B.A., M.A. or higher), then the results of (t) test were calculated for the independent samples to reveal the significant differences between means. Table (11) shows these results.

Table (11): The means and standard deviations of students' scores on each dimension of the wisdom-based thinking according to the qualification (B.A., M.A or+) and on them as a whole and the results of (t) test

Dimension	Qualification	Number	Mean	Standard deviation	" t " Value	Significance Level
Self- knowledge	B. A	168	22.89	3.55	-	0.680
	M. A or higher	59	23.15	2.37		
Emotional management	B. A	168	27.08	4.23	0.345	0.723
	M. A or higher	59	26.68	3.61		
Altruism	B. A	168	68.46	10.10	0.832	0.409
	M. A or higher	59	67.22	8.99		
Inspiration	B. A	168	55.77	8.31	0.231	0.817
	M.A or higher	59	55.47	9.21		
Judgment	B. A	168	44.03	6.79	0.291	0.77
	M.A or higher	59	43.75	5.94		
Life knowledge	B.A	168	60.28	8.02	0.716	0.475
	M.A or higher	59	59.56	4.42		
Life skills	B.A	168	61.33	8.30	0.311	0.756
	M.A or higher	59	60.95	7.76		
Willingness to learn	B.A	168	27.52	4.76	0.071	0.943
	M.A or higher	59	27.47	4.01		
Overall	B.A	168	367.47	47.30	0.460	0.646
	M.A or higher	59	364.33	37.79		

Table (11) shows that there are no statistical significant differences at the level ($\alpha \geq 0.05$) between the performance means of the B.A. subjects in the study sample and the means of the subjects with M.A. and higher, on the entire dimensions that compose the wisdom-based thinking scale. The (t) value for the differences between the means of dimensions collectively is (0.460). This does not seem statistically significant. The result of this question may be attributed to the nature of the qualifications they are holding either a B. A. or M.A or higher. However, there is a partial agreement between the results of this study and Blates & Smith's Study (2008) which explained that the wisdom-based thinking components are skills acquired as psychological and social functions and as an outcome of the entire experience he/she lives in the society.

The results of the fifth question: Are there statistically significant differences at the level ($\alpha \geq 0.05$) in the wisdom-based thinking level attributed to the years of experience (1–5 years, 6 years and more) on the wisdom scale? To answer this question means and standard deviations of the study sample scores were calculated on each dimension of the wisdom-based thinking dimensions and on all of them collectively according to the years of experience variable (1-5, 6 years and more). Then the results of the (t) test for the independent samples were calculated to figure out the differences significance between the means. Table (12) shows these results.

Table (12): Means and standard deviations of students' scores on each dimension wisdom-based thinking according to years of experience (1-5, 6 –More) & on them as a whole, and the results of (t) test

Dimension	Experience	Number	Mean	Standard Deviation	" t " value	Significance Level
Self knowledge	1 – 5 years	29	22.31	3.10	-	0.209
	6 years -more	198	23.13	3.30	1.261	
Emotional Management	1 – 5 years	29	27.00	4.01	-	0.970
	6 years - more	198	27.03	4.09	0.037	0.919
Altruism	1-5 years	29	68.31	8.45	0.102	0.919
	6 years - more	198	55.73	8.74	0.167	0.867
Inspiration	1 – 5 years	29	55.40	7.06	-	0.867
	6 years - more	198	55.73	8.74	0.167	
Judgment	1 – 5 years	29	44.26	5.34	0.579	0.563
	6 years – more	198	43.86	6.73		
Life knowledge	1 – 5 years	29	60.90	6.97	0.623	0.534
	6 years – more	198	59.95	7.73		
Life skills	1 – 5 years	29	62.03	7.61	0.566	0.572
	6 years – more	198	61.12	8.24		
Willingness to learn	1 – 5 years	29	28.21	3.52	0.877	0.381
	6 years – more	198	27.41	4.70		
Overall	1 – 5 years	29	368.82	39.68	0.277	0.782
	6 years – more	198	366.34	45.74		

It is noticed from table (12) that there are no statistical significance differences at level ($\alpha = 0.05$) between the performance means of the study sample subjects who have (1–5) years of experience and those having (6–more) years of experience on the dimensions composing the wisdom-based thinking scale. The (t) value of differences between means on the dimensions as a whole reached (0.77). This is not statistic significance. The result of this question may be attributed to that both categories receive regular training from the UNRWA Educational Development Centre. This training includes theoretical and practical courses in the domain of administration and leadership in addition to training on new trends in this domain either through short or long term courses.

This bridges the gap between the two groups where it occurs. The factor of competition among leaders may have an obvious influence in this respect. Leaders with little experience compared with leaders with long experience put much concern on the essential knowledge acquisition which enables them to carry out their duties effectively. The result of this question conforms with Sternberg's vision (1998) who thinks that wisdom is an application of all of the individual's abilities such as intelligence, creativity, and knowledge that mediate the inclination to achieve the positive common values through finding balance between each of the personal and social components and the additional personal concerns for the sake of achieving balance with the environment wherein individual lives, formulating life in these environments and the choice of new environments.

The results of the sixth question: Are there statistically significant differences at level ($\alpha \geq 0.05$) in the wisdom-based thinking level attributed to the specialized courses in the wisdom-based thinking for the study sample (attended no courses/attended more than three courses) on the wisdom scale? To answer this question, the means and standard deviations were calculated for the scores of the study sample on each of the wisdom-based thinking dimensions and on all of them as a whole according to the variable (attended no courses/attended more than three courses)?

Then the results of (t) test were figured out for the independent samples to find out the significance difference between the means. Table (13) shows these results.

Table (13): Means and standard deviations of students' scores on each domain of wisdom-based thinking according to (Attended no Courses/ attended more than three courses), on all domains as a whole and the (t) test results

Dimension	Courses	Number	Mean	Standard Deviation	" t " value	Significance Level
Self knowledge	Attended no courses	117	22.87	3.37	-1.247	0.214
	Attended more than 3 courses	56	23.50	2.94	- 1.274	
Emotional management	Attended no courses	117	26.90	3.91	-0.812	0.417
	Attended more than 3 courses	56	27.41	4.56		
Altruism	Attended no courses	117	66.98	10.13	-3.579*	.0.000
	Attended more than 3 courses	56	71.66	7.88		
Inspiration	Attended no courses	117	54.94	8.40	* 2.351	0.020
	Attended more than 3 courses	56	58.00	8.60		
Judgment	Attended no courses	117	43.42	6.47	* - 2.205	0.028
	Attended more than 3 courses	56	45.62	6.63		
Life knowledge	Attended no courses	117	59.60	7.64	- 1.416	0.158
	Attended more than 3 courses	56	61.32	7.50		
Life skills	Attended no courses	117	60.30	8.26	* - 3.078	0.0020
	Attended more than 3 courses	56	64.8	7.14		
Willingness to learn	Attended no courses	117	27.13	6.64	2.221 *	0.020
	Attended more than 3 courses	56	28.68	4.18		
Total	Attended no courses	117	362.2	45.55	* - 2.647	0.009
	Attended more than 3 courses	56	380.29	40.45		

* Indicant on the significant level ($\alpha \geq 0.05$)

Table (13) indicates that there are significant statistical differences at level ($\alpha \geq 0.05$) between the performance means of the study sample of those who (attended no courses) and the means of those who (attended more than three courses) in all dimensions as a whole that compose the wisdom based thinking scale. (t) Value for differences reached (- 2.647) which is a statistical significance at (0.009) level. From the same table differences appear with a statistical significance at ($\alpha \geq 0.05$) between the performance mean of the study sample of those who (attended no courses) and the mean of those who (attended more than three courses) on the following dimensions: altruism, inspiration, judgment, life skills and willingness to learn.

This result may be attributed to the leaders working for the UNRWA who are overwhelmed by altruism value since it stems from their essential values they experience daily during their professional life. In addition to their commitment in raising a promising generation of educational leaders.

Having received regular training in management and leadership domains, their judgment will be wise to some extent because they become acquainted with the rules and the regulations that guide their work. This leads them to practice life skills in a sophisticated professional way in terms of time management ability, caring for priorities, profession morals, achieving goals, dealing with various commitments, good evaluation of ends, making significant decisions, benefiting from life opportunities, keeping on with important issues, being aware of knowledge limitation, learning from experience, openness to change and accepting constructive criticism. On the contrary, the same table showed no statistically significant differences in the following dimensions: self-knowledge, emotional management and life knowledge.

This result may be attributed to a variety of factors: the leader's missing awareness of his points of strength and weakness, his values, thoughts and interests. This result may be interpreted as the weak ability of the leader in understanding and managing his doubts, managing pressures, emotions and his courage effectively as a result of the load of duties he is burdened with. Added to that, the leader's humbleness in understanding the nature of commitments between employees and the natural world, between knowledge and ideas, regular reflection, awareness of life role, searching for deep meanings, taking far fetched contexts into account, evaluating minor contexts in situations and accepting vagueness in life. It is noticed that previous studies did not deal with the effect of the training courses variable in the wisdom-based thinking.

The Results of the Seventh Question: Is there a correlative relation of a statistical significance at ($\alpha \geq 0.05$) level in the wisdom-based thinking level and the age on the wisdom scale? To answer this question Pearson's correlative factor was calculated between the study sample scores on each of the scale dimensions and the total scores on the scale and between the age variable. Table (14) displays these results.

Table (14): Pearson's correlative factors between wisdom-based thinking and the age variable

Wisdom based thinking dimensions	Correlative age factor	Denotation level
Self knowledge	- 0. 063	0. 345
Emotional management	0. 015	0. 825
Altruism	- 0. 034	0. 609
Inspiration	- 0. 017	0. 804
Judgment	0.023	0.732
Life knowledge	- 0.086	0.199
Life skills	- 0.010	0.886
Willingness to learn	0.017	0.802
Overall	- 0.025	0. 707

It is noticed from table (14) that there is an inverse weak correlative relationship between age and wisdom level on the wisdom-based thinking scale. This result could be attributed to the nature of people's lifestyle in general, and the educational leaders in particular. This sort of life is described as the digital age life which bridges the gap between the old and the youth. The Internet plays a decisive role in enabling leaders of all ages to acquire various skills and abilities. Perhaps some of these are the skills and the abilities of the wisdom-based thinking. As we have seen in the case of wisdom determiners acquisition there is no decisive evidence that wisdom grows with age. In spite of that some researches indicate to its growth as age progresses but this could be based on the imagination of people that relates between age and wisdom.

It is hoped that a long life span would give the individual a better opportunity to achieve expert knowledge although this is not a necessary matter. The result of this question reconciles with Baltes & Smith's study result. Also, this result is in agreement with Labauvie's study 1990, which revealed that his total researches did not prove that wisdom was related to old age. It showed that wisdom appears during the middle of age in the fourth and the fifth decades, and some youths have wisdom. This study is in agreement with Meacham's (1990) which showed that wisdom exists in all ages in a variety of degrees, and therefore wisdom does not necessarily grow automatically with age, but to become an adolescent or an adult is a necessary requirement for its growth.

However, modern empirical research does not consistently support a significant relationship between old age and wisdom (Brugman, 2006; Vaillant, 2002).

Recommendations

In the light of the previous results the study proposes the following recommendations:

1. Conducting studies to detect the effect of the psychometric features of Brown's scale in the Arab environment which include different samples to ensure a great degree of the information credibility achieved through this scale.
2. Applying Brown's scale on new samples of university students and community colleges to be used as a prediction indicator for the level of their success in leadership.
3. Going towards building up a battery for measuring the wisdom based thinking derived from the Arabic psychological heritage.
4. Building up development programs which hold the responsibility of training the education leader of all levels on the wisdom based thinking components.

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