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## LIFE SKILLS AND THEIR RELATIONSHIP TO HIERARCHICAL THINKING AMONG GRADUATE STUDENTS

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**Abstract:** This article briefs is aimed to identify.

1. Life skills among graduate students.
2. Hierarchical thinking among graduate students.
3. The correlation between life skills and hierarchical thinking among graduate students.
4. The significance of differences in the correlational relationship between life skills and hierarchical thinking among graduate students according to the variables of gender (male, female), specialization (human, scientific) and certificate (master's, doctorate).

In order to achieve the objectives of the research, the researcher built the measure of life skills according to the classification of the World Health Organization (1997), which is final form of (42) paragraphs. It also built the scale of the hierarchical thinking scale according to the theory of thinking styles of Robert Sternberg, which consisted in its final form of (31) items. The two measures were applied to the statistical analysis sample of (226) graduate students, and after confirming the validity of the tools through honesty and consistency indicators, the researcher applied the three metrics to a sample of (226) graduate students, and after collecting and processing data statistically and using the one-sample test, the Zae test, Pearson correlation coefficient, and there:

1. Graduate students have life skills.
2. Graduate students have hierarchical thinking.
3. There is a correlation between life skills and hierarchical thinking among graduate students.

There are no statistically significant differences in the correlation between life skills and hierarchical thinking among graduate students depending on the variables of gender (male, female), specialization (human, scientific) and certificate (master's, phd).

**Keywords:** life skills, Thinking Hierarchical

### RESEARCH PROBLEM

Students must execute various responsibilities, academic assignments, and research duties throughout the postgraduate stage, which requires a certain level of talent and mental aptitudes, including intellect and thinking. Additionally, failing to meet the student's basic requirements and putting off addressing his compatibility-related issues would result in a lack of inventiveness and critical reflection on his part, and this will reflect negatively on his self-confidence and social communication, and this will generally affect other areas of his life during the study period and after graduation. (Al-Jami, 2008: 19-20), and students' lack of interest in life skills will lead to poor interaction with others, inability to solve problems, make decisions, self-awareness with a lack of vision of future goals, failure in communication skills and weak motivation, and neglecting students' performance of life skills puts them in a state of failure in dealing with life variables, and lack of resilience in opinion (Jaaza, 2017: 5), also the student's lack of interest in life skills will lead to weak interaction with others, inability to solve problems, make decisions, self-awareness with lack of vision of future goals, failure in communication skills and weak motivation, and carelessness students performance of life skills puts them in a state of failure in dealing with life

variables, and lack of repayment in opinion. (Jaaza, 2017: 5), the results of the study (Al-Harthy, 2010) confirmed that graduates of educational institutions suffer from poor life skills, and many of them often fail in their personal and professional lives; Because of the absence of self-awareness and practical communication skill. (Al-Harthy, 2010: 34), and Sternberg points out that mental abilities are not the only determinant of success. The individual must prefer a method of employing and using his abilities, organizing and arranging his thoughts and interpretations in a way appropriate to the situations and events he encounters in life. (Al-Samir, 2003: 36) (Al-Khamisa, 2016: 2). Therefore, postgraduate students need a hierarchical method of thinking that is based on organization and arrangement in the process of acquiring knowledge and information included in the academic courses, in addition to that problems, challenges and circumstances need a hierarchical method of thinking that is commensurate with the nature of the situation and the problem, as the individual cannot provide appropriate solutions without resorting to a hierarchical method of thinking to organize information and benefit from it in the situation. (Abdul-Hadi, 2021: 137), and Sternberg asserts that individuals whose thinking does not depend on hierarchy and priorities, rules and directives are something repugnant to them, and they are not wanted in many institutions. (Al-Tayyib, 2006: 61-62), they are inconsistent in their social behavior, drop out of education, and tend to adopt a random method in solving problems, (Sternberg, 1997:58).

Based on the above, the researcher briefs her problem with the question: Is there a connection between life skills and hierarchical thinking among postgraduate students?

### **RESEARCH IMPORTANCE**

The university is a well-regarded academic and research institution. Its primary responsibilities include producing skilled employees for leadership roles in a variety of societal disciplines as well as basic and applied research needed for societal advancements in science and technology (Grio and Hegras, 1991: 160), Therefore, the university study stage is essential for the youth segment because they are future leaders, and the nation's hopes and future are based on them. They need support and support to overcome the sense of isolation, frustration and despair. (Al-Jama'i, 2008: 19-20), The importance of life skills appears through the nature of the individual's life with changing situations, which makes him need to deal with these changes in the correct manner, and in order to deal and behave properly, the individual had to learn the sound foundations that avoid failure in dealing with these situations, and this is done through the acquisition of various life skills. (Saad Al-Din, 2007: 14), the study (Mazen, 2002) indicated that the expansion of knowledge and development made the world a small village; Which created the need to identify the students' possession of the necessary life skills to deal with these developments, (Mazen, 2002: 352-353). Attention to life skills is one of the most important areas in the educational field. Interest in education has increased worldwide with the aim of developing and preparing students for a comprehensive preparation for life. A number of educational and educational systems have adopted the inclusion of life skills as a curriculum and one of the important education outcomes, because learners need such skills in all educational stages and daily life to achieve sustainable development. (Al-Ghamdi, 2011: 10), life skills also help achieve personal and social harmony, accept environmental variables and interact with them, manage life, solve problems, gain self-confidence, and deal effectively with situations that the individual faces. (Mansi and Bakhit, 2010: 14), the concept of life skills has also received great international attention from official institutions and international organizations such as UNICEF, UNESCO and the World Health Organization. Educational and educational policy makers have always stressed the importance of developing life skills, because they are the means that help individuals in light of globalization and the rapid changes taking place in the world, and because they are the basis for building capacities that help enhance mental well-being and adequacy among young people and help them face the pressures of daily life. (Botvin, G.J, et al, 2003:1), and the World Health Organization report recommended the necessity of taking care of life skills and working on their presence in educational and educational institutions (WHO, 1999:1), and that life skills are of great importance, as confirmed by several studies, including (Saad Al-Din, 2007) and (Al-Judaibi, 2010). They agreed that life skills have become necessary in developing students' tendencies towards academic subjects, providing an environment characterized by positivity and interaction, providing a better life, making interaction

easy for individuals who possess life skills, facilitating the process of understanding oneself and others, and the ability to solve life problems. (Al-Hakimi and Bushra, 2015: 8), and Sternberg points out that thinking styles have an important role in the areas of life, as individuals' knowledge of their preferred way of thinking helps them to select professional work that is compatible with this style. (Sternberg, 1997:84).

The individual's way of thinking, including the hierarchical way of thinking, represents the way the individual receives knowledge, information, and experience, the way he arranges and organizes this information, the way he records, codes, and integrates this information and keeps it in his cognitive stock, and then retrieves it in the way that represents his way of expressing it, either by a physical, sensory means, or a fictitious ratio, or in a symbolic way through letters, words, and numbers. (Qatami, 2000: 589).

The hierarchical method of thinking is the result of the individual's understanding and interpretation of the similarities and differences of the situations and the solution of the various life problems that he is exposed to, and this, in turn, depends on the representation, storage, installation and recall of information when necessary. (Sharif, 1981: 156), and the hierarchical method of thinking is considered one of the most important methods of thinking, as individuals, according to this method, set multiple goals and give them different priorities, each according to its importance. (Sternberg & Wagner, 1991: 3), the most important characteristic of individuals with a hierarchical style of thinking is that when they fall into a discussion, they tend to simplify, organize, and arrange, and they do not find it difficult to follow a straight line in their discussion, and they are also distinguished by the fact that their performance is better when the tasks and positions that are assigned to them are organized and restricted in a certain order. (Al-Tayeb, 2006: 60-65), and that most institutions put people with a hierarchical style in the forefront, and universities are perhaps the most followers of that, students with a hierarchical style study many subjects, they set priorities for their time and effort so that they take the exams in the time allowed in order to answer the largest possible number of tests, they tend to write in the hierarchical way that the teacher prefers and distinguishes between the most important points and the least important ones. (Sternberg, 1997:51) (Sternberg, 2004: 89), and by this they are inclined when performing their work to accuracy with efficiency, order with compliance, and control with caution. (Amer, 2003: 156), the hierarchical method is important and even necessary if it is related to the completion of a master's thesis or a doctoral dissertation, especially if the situation requires dealing with several issues at the same time, so they must be addressed according to priority, and this is what the student also experiences before or after During the examination period, as he has several subjects that he must review, but there are priorities that he must take into account, and this is according to the degree of ease and difficulty and the length of the examination period. (Bin Ghadfa, 2014: 286), Sternberg stresses the importance of the hierarchical method in the teaching method (lecture). Lecture teaching tends to be more appropriate with the hierarchical method because students usually cannot decide what is more or less important, Even reading is not an activity without a hierarchical style. Silent reading tends to be more appropriate and appropriate with many styles. It is in the interest of students with a hierarchical style. (Sternberg, 2004: 190-193), and Sternberg mentions that hierarchical individuals are characterized by flexibility in dealing, especially when they face complex matters and situations, and he mentions this in his study (Sternberg, 1990) that the flexible use of the mind and encouragement of diverse thinking methods enables the individual to produce ideas and solve problems. (Sternberg, 1990: 366), and teaching students the methods of thinking is very important, which helps them in their academic and academic achievement. (Al-Siaghi, 2005: 32), and this was confirmed by the study (postiglion, 2001 & Zhang), as it indicated in its results that academic achievement is positively associated with hierarchical thinking.

So the researcher sees shedding light on life skills and their relationship to hierarchical thinking among an influential and broad sample within society, especially "graduate students".

#### **AIMS OF RESEARCH**

1. The life skills of postgraduate students.
2. Hierarchical thinking among postgraduate students.
3. The correlation between life skills and hierarchical thinking among postgraduate students.

4. Significance of differences in the relationship between life skills and hierarchical thinking among postgraduate students according to the variables of gender (male, female), specialization (human, scientific) and stage (master's, doctorate).

### **LIMITS OF THE RESEARCH**

1. Objective limits: The research is limited to studying the following variables: life skills and hierarchical thinking.
2. Human limits: The research is limited to postgraduate students at Wasit University, according to gender (male, female), specialization (scientific, human), and stage (master's, doctorate).
3. locative limits: The research is limited to the University of Wasit from the faculties of scientific and human specialization.

### **TERMS AND DEFINITIONS**

**Life skills:** World Health Organization (WHO, 1997): It is the capabilities necessary to carry out consensual and positive behavior that enables the individual to deal effectively with the requirements and challenges of daily life. (WHO, 1997:3)

**Thinking Hierarchical:** Sternberg (1990) defines it as: a method followed by individuals in arranging all the goals facing them, each according to its importance. (Sternberg & Wagner, 1991: 3)

#### **skill concept**

Education gives great attention to life skills at the present time, as the goals and philosophy of education have changed according to global changes. Life skills have become an important and major element in the educational process. Good education is not limited to knowledge content only, but goes beyond that by providing students with life skills to overcome problems and situations they face in daily life. (Muhammad, 2010: 9)

### **STAGES OF SKILL DEVELOPMENT**

1. The first stage (cognitive): in which the individual brings to memory a list of facts related to the skill, and the individual trains in a typical way on these facts when performing the skill at the beginning.
2. The second stage (consequence): It is the stage in which two basic things happen. The first is errors in the initial understanding that appear and disappear gradually, and so on. The second is that the connection between the different elements required for successful performance is strong. Thus, it requires the individual to sit for a number of seconds trying to remember how to implement the transition from the first stage to the second stage. Basically, the outcome of the association stage is a successful procedure for performing the skill. (Abdulsattar, 2022:21)
3. The third stage (automatic): In this stage, things happen automatically and the door to creativity opens, and it does not require the individual to even think about the skills he is doing. Because it will come automatically, and these three stages take place in all skills. (Anderson, 2007: 376-377)

### **LIFE SKILLS CHARACTERISTICS**

1. Attitude: It is represented in the motivation and desire of the individual to perform the action.
2. Knowledge: It consists in knowing how an individual performs or behaves.
3. Efficiency: It is represented in the actual implementation of the individual, in the sense that the skilled individual performs the work efficiently in all changing circumstances. (Jones, 1999: 125)

### **CLASSIFICATION OF LIFE SKILLS**

**First: classification of the World Health Organization (WHO, 1999)** Department of Mental Health classified life skills into ten basic skills in five domains, and each domain includes two skills, including sub-skills, which are as follows:

1. Problem-solving and decision-making skills: These are the skills that help the individual to deal in a positive and effective manner with the problems he faces and enable him to make the appropriate decision and identify solutions to those problems.
2. The skills of self-awareness and empathy: These are the skills that include self-knowledge, its characteristics, sources of strength and weakness, what the individual desires and does not desire, and helps him in communicating with others and building relationships and empathy between them.
3. My creative and critical thinking skills  
**Creative thinking:** It is a high-level, complex mental activity directed by a strong desire to search for multiple solutions to the problem facing him and to make decisions that enable him to look beyond the limits of his knowledge, or to reach original results that were not previously known.  
**Critical thinking:** includes the skill of analyzing the influence of peers and the media, analyzing attitudes, values, norms, and social beliefs, and the skill of identifying information and its sources.
4. My skills in managing emotions and coping with pressure
  - **The skill of managing emotions:** it includes the skill of absorbing anger, the skill of dealing with sadness and anxiety, and the skill of dealing with loss, trauma and abuse.
  - **The skill of coping with stress:** it includes the skill of time management, positive thinking, and the skill of relaxation techniques.
5. My skills of effective communication and building relationships: It includes the skill of verbal and non-verbal communication, good listening, expressing feelings, making observations, negotiation skill, conflict management and self-affirmation skill. (WHO, 1999:1-2)

**Second: Classification by Imran et al. (2001):** They classified life skills and considered them basic and indispensable skills for the individual in his interaction with the situations of his daily life. They divided them into two parts, as follows:

- 1 Mental skills: These include decision-making, problem-solving, business performance planning, time and effort management, self-control, conflict management, negotiation processes, crisis management, critical thinking, and creative thinking.
- 2 Practical skills: These include personal care of the body, care of clothes, use of household tools and appliances, care of personal tools, choosing and taking care of housing and home furnishings, administering some first aid, making good use of environmental resources, and rationalizing consumption. (Imran et al., 2001: 14-15)

### **Thinking Hierarchical**

Hierarchy: The concept of hierarchy refers to something that tends towards order and priority, According to this method, individuals tend to set priorities according to the need, as the needs cannot be met all at once, but they face a problem when their needs are contradictory to the needs of the institution in which they work. (Abu Jado and Nawfal, 2007: 56). Hierarchical thinking is the individual's method through which information is processed, matched and synthesized, complex problems are solved, and large problems or projects are divided into smaller steps in order to solve or implement them. According to Marina Laudwigs, a professor at Stockholm University, hierarchical thinking means that the individual relies on a strategy to deal with all simple and complex tasks. We can use it to deal with complex cultural concepts such as language, music, literature, art, and science. We can also use it with simple daily tasks that we can automatically understand as a series of simple subtasks. It is worth noting that our brains operate according to the hierarchical thinking strategy while dealing with and processing language or music, each of which arises mainly by arranging sounds according to a special organization.

It is also the way in which the individual is closer to the environment and is able to face challenges and changes in it, as the individual who enjoys hierarchical thinking is known for his ability to resolve conflicts. Sternberg (2012) indicated that the individual in this type of thinking is able to set priorities and the inability to achieve all goals at the same time, and is able to deal with

the multi-field task and then faces conflicts in organizing priorities, but he is able to overcome those conflicts. (Aljojo, 2012:338)

Individuals with a hierarchical style tend to be motivated by a hierarchy of goals, with the realization that not all goals can be achieved (to the maximum possible degree) in the desired way and in an equal manner, and that some goals are more important than others. They tend to prioritize. (Sternberg, 2004: 88)

And that the hierarchical form includes hierarchical problems to achieve multiple goals and define different values and priorities for these goals, and among the hierarchical problems: choosing a profession, choosing a college or work, identifying a husband or wife, planning the course. (Al-Tayeb, 2006: 61)

#### **Characteristics of hierarchical thinking**

1. The individual has a high level of cognitive complexity related to positive personality traits.
2. The individual has a high level of self-esteem, a tendency to deep learning, and a high level of cognitive development
3. The individual with hierarchical thinking is open to the experiences of others.
4. The individual develops a sense of identity.
5. The individual has a strong sense of determination and perseverance.
6. Tends to be creative. (Kovalcikiene&Loreta, 2013:41)

#### **Benefits of hierarchical thinking**

1. It helps the individual to solve problems.
2. Enables the individual to plan and set schedules.
3. Acquisition of new skills.
4. It helps the individual to remember information.
5. Understanding the language.
6. Learn music.

#### **Explanatory theories of hierarchical thinking**

##### **Thinking Styles Theory**

This theory is more common and accepted by the scientist Robert Sternberg (1988) and called it the theory of self-mental control or the mental system "Mental Gouvernement". (Al-Dardir, 2004: 150)

Sternberg (1994) believes that the style of thinking refers to the individual's preferred way of thinking when performing actions, and it is not an ability but rather a preference for the use of capabilities and lies between personality and capabilities (personality - ways of thinking - capabilities). He also believes that the thinking style means the method and the preferred method for the individual in employing his abilities, acquiring his knowledge, organizing his thoughts, and expressing them in a way that is in line with the tasks and situations that confront the individual. (Ali and Al-Mashhadani, 2014: 201). Tendencies (conservative, liberal) and forms (ownership, minority, anarchist, and hierarchical). The methods of thinking have the same functions, tendencies, forms, levels, and scope. Thus, it directs thirteen ways of thinking. (Al-Dardir, 2004: 151), and the following is an explanation of these methods:

##### **First: Styles of thinking in terms of function**

1. **The Legislative Style:** It is the tendency of the individual to formulate, plan and innovate. The members of the Legislative Style tend to innovate their laws and systems and do things in their own way. They prefer problems that are not prepared in advance. They also enjoy being involved in tasks that require learning and self-direction. (Al-Quraiti, 2006: 62)
2. **Executive Style:** It is the tendency of the individual to follow the objective rules and to use existing and predetermined methods to solve problems. (Ali and Al-Mashhadani, 2014: 216)
3. **Judicial Style:** People with this style tend to judge others and their actions, analyze and evaluate things (R. John, 2022:10), evaluate rules and procedures, and have the ability to imagine and innovate. They prefer different professions such as writing criticism, evaluating programs, counseling, and mentoring. (Al-Sukari, 2008: 11)

##### **Second: Styles of thinking in terms of level**

1. Global style: These individuals are characterized by their preference to deal with abstract issues and often ignore details, high-ranking concepts, change and innovation, innovation,

ambiguous situations, generalities, and tend to sail in the world of imagination and indulge in their thinking. (Asaad,2022:12)

2. **Local style:** The owners of this style are characterized by a preference for settled problems that require dealing with details, and they tend towards practical situations and listen to the details. (Waqad, 2008: 32)

**Third: Styles of thinking in terms of tendency**

1. **Liberal style:** The owners of this style are characterized by going beyond the laws and procedures, and the tendency to ambiguity and unfamiliar situations, and they prefer the maximum change possible.
2. **Conservation style:** These individuals are characterized by adherence to laws, hate ambiguity, love the familiar, reject change, and are distinguished by caution and order. (Sternberg & Zhang 2000: 248–249)

**Fourth: Methods of thinking in terms of the field**

1. **External style:** The owners of this style tend to be extroverted, work with a team, have a sense of social, form social relationships, and help solve social problems.
2. **Internal style:** they prefer to work alone, they are introverted, and their orientation is towards work or task, they are characterized by internal focus and their social awareness is less about social relationships, they tend to be lonely, and they use their intelligence in things and not with others, and they prefer analytical and innovative problems. (Sternberg & Wagner, 1991:6)

**Fifth: styles of thinking in terms of form**

1. **Monarchic style:** These individuals are characterized by orientation towards one goal all the time, they believe in the principle of the end justifying the means, their representation of problems is confused, tolerant, flexible, they have relatively little awareness of priorities and alternatives, they prefer business, history, and science, and they are low in the ability to analyze and logical thinking.
2. **Anarchic style:** the individuals of this style are characterized as being driven by a mixture of needs and goals, they believe that the ends do not justify the means, they are random in their treatment of problems, it is difficult to explain the motives behind their behavior, they are confused and extremists in their positions and they hate the system. (Waqad, 2008: 29-32)
3. **Oligarchic style:** These individuals are characterized by their impulsiveness through goals of equal importance, tense, confused, and have many contradictory goals.
4. **Hierarchic style:** The owners of this style tend to do many things at one time and put their goals in a hierarchical manner according to their importance and priority. (Murad, 2013: 69).

Sternberg mentions that hierarchical thinking individuals are characterized by several characteristics, as follows:

1. Indifferent to pursuing goals of gradual importance.
2. Balanced in its approach to problems.
3. He does not believe that the end justifies the means.
4. Tolerant.
5. Self-awareness.
6. Flexible in thinking.
7. tend to complicate matters.
8. He prioritizes well. (Jarwan, 2002: 102)

**METHODOLOGY:** The researcher followed the descriptive approach as it is the most suitable method for studying the correlations between the variables and detecting the differences between them in order to describe and analyze the studied phenomenon, as the descriptive approach is one of the methods of scientific research that is concerned with studying the phenomenon as it is in reality.

**Research procedures**

1. **Research community:** it is meant by the community that it is all the individuals who carry the data of the phenomenon that is within reach of the study; they are the total group with the elements that the researcher seeks to generalize the results to (Anad, 2014: 380), the

current research community consists of graduate students (Masters, PhD) at the University of Wasit and distributed to (12) colleges of specializations (humanities and scientific), and of both sexes for the academic year (2022-2023)

2. **Research sample:** The researcher relied on the selection of the research sample on the stratified random method, and this method is used when the study population is not homogeneous and can be divided into separate strata according to the variables of the study (Odeh and Al-Khalili, 1988: 174). female), specialization (scientific, human), and stage (Master's, Ph.D).
3. **Research tools:** The researcher built the two scales of life skills and hierarchical thinking according to the definition and classification of the World Health Organization (1997) and classification (1999) and built the hierarchical thinking scale according to the theory of thinking styles of Robert Sternberg.
4. **Psychometric properties** (indicators of validity and reliability) for the two scales of life skills and hierarchical thinking.

The efforts of those interested in psychological measurement have recently tended to increase the accuracy of psychological measures. (B. Kannan, 25:2022), by defining some psychometric characteristics of the scales and their paragraphs, which can be indicators of their accuracy in measuring what was set to be measured and carrying out the measurement process with the least possible errors. (Al-Masry, 1999: 36), and thus the scale is not considered a valid tool for measurement unless it meets certain conditions, and these conditions are considered as goals that the scale designer tries to achieve at the moment of designing the scale, and the most important of these conditions is the validity of the scale, and then its stability. (Imam et al., 12:1990).

#### **indicators of Validity**

Validity: means that it measures the characteristic or trend the test is designed to measure; that is, it measures what it intends to measure. (Abbas, 1996: 26)

It shows the extent of its Validity to measure what it was set to measure, in the sense that an honest measure only measures what it was set to measure. (Murad, and Suleiman, 2005: 350), Two indicators of Validity have been extracted for the scale of life skills and hierarchical thinking: apparent Validity and constructive Validity. The following is an explanation of how to verify each indicator:

**A. Face Validity:** Apparent Validity is one of the types required in constructing psychological tests and scales, and this type refers to the appearance of the scale and how it seems appropriate for the purpose for which it was set. (Faraj, 2007: 271), and Eble, 1972 indicated that the best way for apparent honesty is for several arbitrators to estimate the extent to which the paragraphs represent the quality to be measured. (Ebel, 1972: 555), and to verify the Validity of the scale items, the researcher presented the items to a group of arbitrators, and the arbitrators approved the things of the measure.

**B. Construction Validity:** It is sometimes called the validity of the concept and at other times the validity of the hypothesis formation, as it is one of the most important types of validity, as it depends on the empirical verification of the extent to which the grades of the paragraphs correspond to the psychological construction of the characteristic to be measured. (Idris, 2010: 160), as indicated by Lindcost (1951) that one of the indicators of the validity of the construction is the correlation of the score of each paragraph with the total score of the scale, and the correlation of the score of the paragraph with the total score of the scale means that the paragraph measures the same concept that the total score measures. (Salomy, 2012: 131)

In measuring the validity of the construction, the researcher relied on two methods: (the discriminatory power using the two extreme samples method, and the internal consistency or the method of the paragraph's relationship to the total sum):

Discriminatory power (two extreme samples method)

This type of constructive validity is achieved through the ability of the life skills scale to distinguish between individual respondents who have the highest score, and individuals who have the lowest scores in life skills.

Internal consistency (style of paragraph relationship to the overall score of the scale)



This type of constructive validity is achieved by finding the correlation between the scores of each paragraph and the total score of the domain and the scale and the relationship of the domain to other domains. Thus, the researcher verified the indicators of the validity of the life skills and hierarchical thinking scale.

### Reliability

Consistency is one of the basic conditions that must be met in educational and psychological measures. Consistency means consistency in results, and constancy means accuracy of the measure. The stability of psychological measures and tests can be verified by many methods. (Ebel, 1972:412) The researcher verified the stability indicators:

#### External consistency test-retest method.

The researcher applied the two scales (life skills and hierarchical thinking) on a sample consisting of (60) postgraduate students, and two weeks after the first application, the application was repeated on the same sample, and after correcting the forms and obtaining grades, the correlation between the first application and the second application was calculated using Pearson's correlation coefficient. (Al-Issawy, 1985: 58)

#### Internal Consistency Equation (Cronbach's alpha)

This method relies on consistency in the individual's performance from one paragraph to another, and is based on the standard deviation of the scale and the standard deviations of the scale items (Thorndike and Hagen, 1989: 79). The stability of the life skills scale reached (0.69) and hierarchical thinking (0.94), so it is an excellent stability, as the reliability coefficient is considered good if it reaches (0.67) or more. (Al-Nabhan, 2004: 237)

## CONCLUSIONS AND SUGGESTIONS

### Life skills for postgraduate students.

To achieve this goal, the researcher applied the life skills scale on a sample of postgraduate students, which numbered (226) male and female students, and after processing the data statistically, the arithmetic averages and standard deviations were extracted for each of the life skills to find out which skill prevails among the members of the research sample. 70), with a standard deviation of (1,785), self-awareness skill (11.82), and a standard deviation of (1,859), and the decision-making skill had an arithmetic mean of (7.04) and a standard deviation of (1,261), while the critical thinking skill had an arithmetic mean of (9.31), and a standard deviation of (1,443), while the creative thinking skill reached With an arithmetic mean of (9.35), with a standard deviation of (1,648), and the effective communication skill, its arithmetic mean was (9.28), and its standard deviation was (1,473), while the emotional skill had an arithmetic mean of (9.48), with a standard deviation of (1,639), and the emotion management skill had an arithmetic mean of (9.37), with a standard deviation. It has a value of (1,604), and finally the skill of coping with stress, its arithmetic mean was (9.25), and a standard deviation of (1,802), while the total score for life skills was an arithmetic mean of (98.19), with a standard deviation of (6,931). The results indicated that there were statistically significant differences between the hypothetical mean and the arithmetic mean, as the t-values calculated for each of the life skills and the total score for life skills were (16,531), (14,345), (14,707), (12,345), (13,648), (12,308), (13,100), (13,556), (12,000). (857), (10,447), (30,767), respectively, and these differences were statistically significant in favor of the arithmetic mean, because the probability (p) value is smaller than the significance level (0.05), and Table (49) shows this.

**Table : 1 The arithmetic mean, standard deviation, and t-value of the life skills scale**

Variants	Medium Default	Arithmetic Average	Standard Deviation	Mean Square Error	Calculated T Value	Probability Value	Indication
<b>Problem Solving</b>	10	11,58	1,441	0,096	16,531	0,000	<b>Significance</b>
<b>Relationship Building</b>	10	11,70	1,785	0,119	14,345	0,000	<b>Significance</b>
<b>Self Consciousness</b>	10	11,82	1,859	0,124	14,707	0,000	<b>Significance</b>
<b>Make Decision</b>	6	7,04	1,261	0,084	12,345	0,000	<b>Significance</b>
<b>Critical Thinking</b>	8	9,31	1,443	0,096	13,648	0,000	<b>Significance</b>

<b>Creative Thinking</b>	8	9,35	1,648	0,110	12,308	0,000	<b>Significance</b>
<b>Effective Communication</b>	8	9,28	1,473	0,098	13,100	0,000	<b>Significance</b>
<b>Emotion</b>	8	9,48	1,639	0,109	13,556	0,000	<b>Significance</b>
<b>Emotion Management</b>	8	9,37	1,604	0,107	12,857	0,000	<b>Significance</b>
<b>Face Pressure</b>	8	9,25	1,802	0,120	10,447	0,000	<b>Significance</b>
<b>Life Skills</b>	84	98,19	6,931	0,461	30,767	0,000	<b>Significance</b>

From Table (1), we know that postgraduate students enjoy life skills, as this result can be interpreted in the light of the social learning theory that life skills can be learned through observation and performance, so the student observes a model that performs the skill, interprets and applies a series of movements in the performance. Hence, the learner attends, applies, and receives corrective feedback from the professor. The student's feeling of ability to perform prompts him to perform and repeat the performance. He develops the feeling of the possibility of learning new performances every time he finds support And encouragement. (Bandura, 1993: 148-177), and the researcher attributes this result to the prevailing atmosphere in the university environment and the nature of relationships and interactions in daily life, all of which would develop the life skills that enable them to deal with the various requirements of life, and that the success of the individual in his life depends to a large extent on the extent of his possession of life skills and experiences, as life skills help the individual to face different life situations, and increase the ability to overcome life problems and deal with them, and that the individual enjoys life skills and Practicing it in itself makes the individual feel proud and self-esteem, and that increases his self-confidence and raises his self-esteem. It also allows them to develop and acquire new skills in several social, scientific and technical fields.

#### **Hierarchical thinking among postgraduate students**

To achieve this goal, the researcher applied the hierarchical thinking scale on a sample of (226) postgraduate students, and after processing the data statistically, the arithmetic mean and standard deviation of hierarchical thinking were extracted, and the arithmetic mean was (74.6), with a standard deviation of (13,157), and the results indicated that there is a statistically significant difference between the arithmetic mean and the hypothetical mean, as the t-value calculated for hierarchical thinking was (14,399), which is statistically significant and in favor of the arithmetic mean, because the value of (p) is smaller than the level of significance (0.05), Table (2) illustrates this.

**table 2: Arithmetic mean, standard deviation, and t-value of the hierarchical reasoning scale**

<b>Variants</b>	<b>Medium Default</b>	<b>Arithmetic Average</b>	<b>Standard Deviation</b>	<b>Mean Square Error</b>	<b>Calculated T Value</b>	<b>Probability Value</b>	<b>Indication</b>
<b>Hierarchical thinking</b>	62	74,6	13,157	0,875	14,399	0,000	<b>Significance</b>

This means that graduate students enjoy hierarchical thinking, and this can be explained in the light of the theory of thinking styles, which believes that the prevalence of this style of thinking can be due to the impulsiveness of individuals and the desire to deal with many situations, determine their priority, and then organize them in order to confront or solve them as possible. This is due to the high flexibility enjoyed by individuals of this type of thinking in dealing with matters of complexity by virtue of the age stage in which they live, and this is confirmed by Sternberg (2004). In addition, this result can be interpreted in the light of university curricula and study plans that are based on a hierarchical form that takes into account the sequence from easy to difficult in teaching and presenting skills and experiences so that students can absorb and acquire information, experiences and skills according to that methodology. These practices represent an influencing

factor that pushes Students need harmony in their thinking and interaction with educational tasks and situations, which leads them to prefer using the hierarchical method of thinking so that they can complete academic tasks and achieve the requirements for success.

### **Correlation between life skills and hierarchical thinking among postgraduate students.**

To achieve this goal, the researcher used the Pearson correlation coefficient to find out the correlation between life skills and hierarchical thinking among postgraduate students. explains it. Table (3)

**Table 3: Correlation coefficient between life skills and hierarchical thinking**

Indication	Probability value	Correlation coefficient
mark	0,000	0,311

The researcher believes that this result is logical, as the more graduate students have hierarchical thinking, the more they have a high level of life skills. And practice and differential gradation. As for hierarchical thinking, it is the individual's preferred method of thinking when performing actions, meaning that the method of thinking is not an ability, but rather a method of preference for the use of ability and lies between personality and capabilities. Hierarchical image according to importance and priority.

Significance of differences in the correlation between life skills and hierarchical thinking among postgraduate students according to the variables of gender (male, female), specialization (human, scientific), and stage (master's, PhD).

### **(male, female)**

To recognize the significance of the differences in the correlation between life skills and hierarchical thinking among postgraduate students according to the variable of gender (male, female) specialization (scientific, human) stage (Master's, Ph. The result was not statistically significant because the calculated zenith value for the type (-1,130), specialization (-1.500), and stage (-0.877) is smaller than the tabular zenith value (1.96), and the table below shows that.

**Table 4: Differences in the correlation between life skills and hierarchical thinking**

Variants	Male	Female	Scientific	Human	Master's	Phd
Correlation Coefficient	0.098-	0.041-	0.158-	0.534	0.037-	0.032
Sample Volume	102	124	114	112	184	42
Logarithmic Contrast	0.015	0.005	0.203	0.410	0.280	0.420
Z Value	1.130-		1.500-		0.877-	
Indication	Nonindicating		Nonindicating		Nonindicating	

This resulted back to the increasing awareness and culture of parents and the development of methods of socialization, which led to caring for males and females alike, as the opportunities for growth in front of them were the same and allowed them to exercise their academic, social and family rights to socialize and make friends alike. The educational institution also represents one of the socialization processes that reflects the social structure and helps to perpetuate, sustain and maintain it. With them, regardless of their specialization and degree, they are exposed to the same social conditions and psychological pressures. Therefore, the results showed that hierarchical thinking is not affected by life skills according to gender (male, female), specialization (scientific, human), and stage (master's, doctorate).

### Conclusions

1. Postgraduate students have life skills that enable them to deal with the various requirements of life.
2. Postgraduate students have a hierarchical thinking style, which indicates their ability to arrange their goals, each according to its importance, and their ability to solve problems and make decisions.
3. There is a correlation between life skills and hierarchical thinking among postgraduate students.
4. No difference was observed in the correlation between life skills and hierarchical thinking according to gender (male, female), specialization (scientific, human) and stage (master's, doctorate).

### Recommendations

1. Incorporating life skills into the courses taught by students and teaching them.
2. Conducting seminars and lectures for students on the importance of life skills, hierarchical thinking, and the importance of developing them in improving the quality of life.
3. Re-preparing teachers by conducting advanced training courses that help them use developed teaching and learning strategies that keep pace with the individual's style of thinking and his ability to use life skills.
4. Urging those in charge of educational planning and policy to employ teaching methods through activities and to provide programs necessary to develop life skills and hierarchical thinking.

### Suggestions

1. Conducting a study to find out the correlation between life skills and personal intelligence.
2. Conducting a study to find out the correlation between life skills and stressful control among university students.
3. Conducting a study to find out the correlation between hierarchical thinking, emotional balance, and achievement struggle among university students.
4. Conducting a study to find out the correlation between hierarchical thinking and voluntary psychological independence.

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