

## Investigating Iraqi English University Instructors' Difficulties in Integrating Thinking Skills among Students in the Classroom

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### Abstract

Teaching and learning process involves teachers, students and the curriculum. Concerning thinking skills, there is no consensus as to what should be included in the category of thinking skills.

There are several reasons as to why there is a need to create a thinking skills in the classrooms. Among others are to cope with the fast changing world where new knowledge is being produced daily while old knowledge is being reorganized and redefined. In time of rapid change, the first priority of an education system is to teach the students how to learn and how to think.

The study aims at investigating Iraqi English university instructors' difficulties in integrating thinking skills among students in the classroom. Thus, the study seeks to elicit answers on changes to be made in the current classroom setting .

The population of the present study includes English language instructors at Bghdad University. In order to fulfill the aim of the present study, a questionnaire has constructed by the researchers. The type of the questionnaire used in this research is rating scales questionnaire .The items of the questionnaire have been collected on the basis of interviews, the open ended questionnaire, then a checklist has conducted and experts opinions have gained as they a jury of specialist in TEFL.

In the light of the findings achieved and the conclusions derived, the researchers recommend that in redesigning pedagogy in integrating thinking culture in the classroom the followings are considered: lesson planning, thinking-based learning, teacher's creativity, teaching thinking skills across curriculum.

### الملخص

تشمل عملية التعليم والتعلم المعلمين والطلاب والمناهج الدراسية. فيما يتعلق بمهارات التفكير، ليس هناك إجماع على ما ينبغي أن يدرج في فئة مهارات التفكير. هناك عدة أسباب الأهمية الحاجة لخلق مهارات التفكير في الفصول الدراسية. من بين أمور أخرى هي للتعامل مع عالم يتغير بسرعة حيث يتم إنتاج معرفة جديدة يوميا بينما يتم تنظيم المعرفة القديمة وإعادة تعريفها. في زمن التغير السريع، فإن الأولوية الأولى لنظام التعليم هو تعليم الطلاب كيف يتعلمون وكيف يفكرون. تهدف هذه الدراسة إلى التعرف على الصعوبات التي يواجهها مدرسي اللغة الانكليزية العراقيين في الجامعات في دمج مهارات التفكير لدى الطلاب في الفصول الدراسية. وهكذا، وتسعى هذه الدراسة للحصول على إجابات على التغييرات التي ينبغي تحقيقها في إعداد الفصول الدراسية الحالية.

تشمل عينة هذه الدراسة مدرسي اللغة الإنجليزية في الجامعات، من أجل تحقيق الهدف هذه الدراسة، تم بناء استبيان من قبل الباحثين المتمثل بمقاييس ومعايير التقييم. وقد تم تطبيق عناصر الاستبيان على أساس المقابلات. وفي ضوء النتائج المحققة والنتائج المستخلصة، اوصى الباحثون على ضرورة إعادة تصميم علم أصول التدريس في دمج ثقافة التفكير في الفصول الدراسية ضمن عملية التخطيط للدروس، التعلم القائم على التفكير، إبداع المعلم، وتعليم مهارة التفكير عبر المناهج الدراسية.

## Introduction

### 1.1 The Problem and its Significance

Teaching and learning process involves teachers, students and the curriculum. Concerning thinking skills, there is no consensus as to what should be included in the category of thinking skills. Most writers assume that the term includes 'higher-level' activities such as problem solving, decision making, critical thinking, logical reasoning and creative thinking (Nickerson, 1989: 7). There are two types of thinking skills, creative and critical thinking skills (Shukor, 2001:3 ). Cotton (2003 ) however, suggests another name for the thinking skills, that is, higher order thinking skills.

There are several reasons as to why there is a need to create a thinking skills in the classrooms. Among others are to cope with the fast changing world where new knowledge is being produced daily while old knowledge is being reorganized and redefined. In time of rapid change, the first priority of an education system is to teach the students how to learn and how to think (Shukor, 2001:3) There is a necessity for students to be independent thinkers as an increasingly wide range of jobs in future requires capable workers/employees who have the ability to think.

Furthermore thinking skills are not yet widespread among students as to function successfully in a highly technical society. A report on Malaysian's experience mentioned that teaching higher-order cognition help students to become independent learners and developing their ability to think are more and more becoming commonly stated educational aims.

Rajendran (2000:123 ) found that there is the lack of ability among students to apply knowledge transmitted through schools and classrooms to real world problems. He stresses that, "many students are unable to give evidence of a more than superficial understanding of concepts and relationships that are fundamental to the subjects they have studied, or an ability to apply the content knowledge they have acquired to real world problems".

As a result of this, there is a need to teach thinking skills as an integral part of the school curriculum. Most countries are concerned with raising educational standards through the compulsory schooling.

According to Cotton (2003), in a highly technical society, teaching children to become effective thinkers is a recognized goal of education. This is to equip the children with lifelong learning and thinking skills necessary to acquire facts and process information in an ever-changing world. As one of the functions of schooling is to supply thoughtful labors to society, it is important that thinking should be integrated in the school curriculum. Other than the concern on mastery of the basics such as reading, writing, science and mathematics etc., equal concern is also on thinking abilities. Basic knowledge alone or mastery of it alone is not sufficient to meet the demands of the labor market in the future.

Some thoughtful reasons for the needs of “higher order thinking skills” are: i) Knowledge based upon rote learning has been discredited; individuals cannot store sufficient knowledge in their memories for future use, ii) Information is expanding at such a rate that individuals require transferable skills to allow them to address different problems in different contexts at different times throughout their lives, iii) The complexity of modern jobs requires thinking staffs who demonstrate comprehension and judgment on world of work. iv) Modern society requires individuals to assimilate information from multiple sources and make judgments (Wilson 2000 ).

In other words, workers entering the workplace of the future must come fully equipped with the skills that enable them to be system thinkers and continuous learners (Shukor 2001:3).

The other reason for the needs of a thinking skills is the corporate world who expressed their concern on the interest in teaching thinking skills because they detected the inability of university graduates to make decisions independently (Phillips 2001:164).

Since the wealth of a nation lies in its people, then it is wise and logical that the brain (thinking) should be the focus of any educational development (Shukor 2001:3).

## **2 . Aims of the Study**

The study aims at investigating Iraqi English university instructors' difficulties in integrating thinking skills among students in the classroom. Thus study seeks to elicit answers on changes to be made in the current classroom setting .

## **3. The Hypothesis**

It is hypothesized that Iraqi English university instructors face difficulties in integrating thinking skills among students in the classroom.

## **4. Value of the Study**

The current study is expected to be of value to :

- 1.Iraqi EFL I English University Instructors to pin point the difficulties in this specific area , and
2. Experts of English language equipment to devise the essential methods and techniques that will help learners and teachers to overcome the problems in this specific area.

## **5. Limits of the Study**

- 1.This study is limited to the language teaching.
- 2.The sample of the study is limited to the Iraqi English university instructors.
3. The subject will be the English language .

## **6. The procedures**

The procedures to be followed are:

1. reviewing literature concerning the topic under investigation,
2. selecting a representative sample which consists of forty university English instructors from different universities.
3. constructing checklist which covers the difficulties faced by instructors.
4. analysing data statistically through using suitable means, and
5. drawing conclusions based on the findings of the study.

## **2. The Theoretical Background**

### **2.1 What do we mean by "Thinking Skills"?**

Thinking skills are the mental processes that we apply when we seek to make sense of experience. Thinking skills enable us to integrate each new experience into the schema that we are constructing of "how things are". It is apparent that better thinking will help us to learn more from our experience and to make better use of our intelligence (Starko,2009: 132).

It has always been the central aim of education to improve the quality of thinking because better thinking will not only enable us to become more successful at learning but will also equip us for life, enabling us to realise our own potential and to contribute to the development of society (ibid).

### **2.2 Why is Creativity Needed and How is it Developed?**

It is well known that a positive atmosphere and a sense of fun are all conducive to better learning and can strengthen the synapses of the brain which help to remember ideas. The question is: do teachers integrate all that fun into a curriculum that is given by the authorities and requires old-fashioned testing and text-book learning that is integrated into the whole school process? There are creative ways to teach, then, that will help students and can be

integrated into the classroom, but it is important always to keep in mind the goals of the activities (Cole et al, 1996: 9).

When students identify the topic with their own life, learning is better. When a student creates a story, both right and left sides of the brain are being engaged which promotes easier learning. So, it would be great if students want to do extra work because they would enjoy using the language (Maxom, 2009: 288).

Creativity is an important element in relation to education and social growth. As the degree of complexity and the amount of information in society continue to increase, society's problems require more creative solutions (Carter, 2007: 38).

In terms of education, creativity is an essential element necessary for learning. Reddy (2004:1) suggests that learning is a creative process that involves students making information relevant by linking prior knowledge and new knowledge in an individually meaningful format. He attributes this meaningfulness to the individual's creativity. Torrance & Safter (1986:8) assert that teachers are often ill equipped to develop, support, or evaluate creativity in their students. If education strives to prepare students for a productive life in society, the educational system must accept responsibility for supporting and developing creativity.

Morganett (1991:260) suggests that teachers can provide positive constructive criticism in creative classrooms when appropriate. This practice will foster a comfortable and safe environment which will enhance the sharing of creative ideas and thoughts.

Berenson & Carter (1995: 182) promote the use of journals, open-ended problems, portfolios, interviews, and performance assessment as measurements which allow students to discover that the new rules of grading alternative assessments reward their unique contributions rather than their short-term memories.

The responsibility of ensuring the development and promotion of creativity in the classroom lies firmly in the teachers' hands, and this is an aspect of education that must not be ignored. Rather than teaching students how to "borrow" information from open sources, the teacher should encourage

students to develop ideas that are created within their own head. The whole point of education and [motivation in the classroom](#) is to enable a student to think for himself/herself with the pool of knowledge at his/her disposal, rather than a mechanical feeding down of unnecessary and irrelevant information (Starko,2009: 132).

Creativity in the classroom is a skill that not all teachers possess, and only the ones who have this trait are the ones who are fondly remembered by the students in the future. Moreover, teachers who actively do this are the ones who prepare their students for future success in the best possible manner. Teachers have to set examples for their students, so creativity in the classroom is something that must emanate from the teacher himself / herself at the very beginning (ibid).

Feeding students' imagination is essential in developing students' creativity. Teachers have to encourage students to use their senses, not just for sensory perception in schools, but maintaining the process as they go through advanced levels. Teachers can also encourage students to read the best, to explore their writing, and to develop the skills of literary criticism and to be able to give constructive feedback (Thorne, 2007:57).

All students have the capacity to be creators and to experience the joy associated with making something new, but first teachers must give them a strong base for creativity. Sometimes teachers and parents unintentionally limit what students can do by sending messages that express or imply limits on students' potential accomplishments (Sternberg, 2010:156).

Sternberg & Williams (1996:7) believe that the most powerful way to develop creativity in students depends on teachers as models. Students develop creativity not when teachers tell them to, but when teachers show them. Most likely teachers balance teaching content with teaching students how to think and practise with and about that content.

To develop creativity, a balance among synthetic, analytic, and practical abilities is required. The person who is only synthetic may come up with innovative ideas, but cannot

recognize them. The person who is only analytic may be an excellent critic of other people's ideas, but is not likely to generate creative ideas. The person who is only practical may be an excellent salesperson, but is as likely to sell ideas or products of little or no value as to sell genuinely creative ideas (Thorne, 2007: 3).

Despite the demands of the curriculum, teachers at all stages of a students' development can recognize some fundamentals which are more likely to encourage than inhibit creativity. So, how exactly does one go about promoting and developing [cooperative and creative learning in the classroom](#)? It all depends on the mindset and the principles of the teacher, and the techniques that he is willing to apply to achieve this purpose (Merrell & Gueldner, 2010: 9-10).

### 2.3 Critical and Creative Thinking

Students are attracted to what interests them, so they will naturally want to explore personal interests. This simple observation is the foundation of creative and critical thinking (Moon, 2008: 28).

Tan (2007: 330) believes that thinking can be broadly divided into two types: convergent and divergent. Convergent thinking looks for the correct, logical answer, focusing on particular aspects and ignoring "irrelevant" information. Convergent thinking is generally step-by-step. Divergent thinking, on the other hand, is all about generating alternatives: increasing possibilities, rather than narrowing the choices. It is also about trying new perspectives and making connections across categories.

Brookfield (1987: 6) defines five aspects and four components of critical thinking. The aspects of critical thinking are:

1. Critical thinking is a productive and positive activity.
2. Critical thinking is a process, not an outcome.

3. Manifestations of critical thinking vary according to the contexts in which it occurs.
4. Critical thinking is triggered by positive as well as negative events.
5. Critical thinking is emotive as well as rational.

The components of critical thinking are:

1. Identifying and challenging assumptions is central to critical thinking.
2. Challenging the importance of context is crucial to critical thinking.
3. Critical thinkers try to imagine and explore alternatives.
4. Imagining and exploring alternatives lead to reflective skepticism.

Tools based on critical thinking depend on careful analysis, evaluation, and reasoning including both deductive and inductive reasoning and both analytical and systems thinking ( Facione, 2010: 59).See Figure 1.



*Figure 1*

*Critical Thinking Skills (Facione,2010: 49)*

Critical thinking is an important component of creativity. The ability to switch between conventional and unconventional modes of thinking is important to creativity (Sternberg , 2010: 90).

Richards & Renandya (2003: 14) believe that creativity is different from innovation, since innovation is ideas to action-taking something that seems to be a good or even exceptional idea and transforming it into something that is tangible for others to be used. Innovation is an active process that has a clearly defined end or goal and that produces something that others can use and indeed want. The goal of creativity is to explore beyond current reality, to realize something new. On the other hand, the goal of innovation is to bring those novel ideas into a tangible form that in some way conforms to what others need in the here and now. Creativity is essentially a divergent activity, expanding beyond current experience, while innovation is essentially a convergent activity, bringing those same ideas back into people's experience.

According to Wood et al (1993:195) what students can gain from taking part in discussions involving creative thinking are:

1. Improved communication skills.
2. Improved ability to collect and interpret information.
3. Improved ability to detect bias.
4. Improved ability to differentiate between fact and opinion.
5. Ability to respect the views of others.
6. Ability to work cooperatively with peers.
7. Ability to make logical conclusions.
8. Chance to examine their values and beliefs and those of others.

9. Ability to make better decisions, greater commitment to the problem solving process, and come up with more effective solutions.

10. Ability to see different perspectives.

The thinking process involves the re-examination of existing information. It appears that creativity takes the next step after challenging assumptions and begins creating new ideas. Critical thinking challenges, but draws conclusions, rather than taking the concepts to new dimensions. Creative thinking is designed to create, and critical thinking is designed to analyze. It seems that creative thinking has aspects of critical thinking, and critical thinking has aspects of creativity. Each type of thinking has value, and when used in conjunction, creates a powerful process of higher order thinking (Rosenwasser & Stephen, 2010: 24).

Terryberry (2005: 112) suggests the following principles critical thinking :

1. Clarity and precision: Every sentence and word must make an exact point. Vague words or incomplete thoughts create gaps in reasoning and destroy rational thought.

2. Accuracy: Every conclusion must support the author's claim with verifiable evidence. Evidence that does not support the claim is not relevant; evidence that supports something other than the claim is not accurate.

3. Relevance: Every idea and conclusion should relate back to the thesis/ purpose. At the end of every paragraph, a reader should ask if the information provided supports the purpose of the paper. Writers can add sentences that clarify the principles of the information provided in terms of the thesis. A critical reader

should also focus on the issue of relevance when considering the organizational strategy of the paper. Examine the concluding paragraph and then compare it with the introduction.

4. Depth: Writers who address the topic superficially open themselves to criticism from various angles or points of view.

5. Logic: Any and all conclusions should be clearly derived from the stated purpose and the evidence presented. After finishing the work, the final question to be asked is: Does it all make sense? See Figure 2.



**Figure 2**

**Critical Skill** (Facione,2010: 50)

#### 2.4 Higher Order Thinking Skills and their Challenging

The challenge of defining “thinking skills, reasoning, critical thought, and problem solving” has been referred to as a conceptual swamp in a study by Cuban (as cited in Lewis & Smith, 1993, p. 1), and as a “century old problem” for which “there is no well-established taxonomy or typology” (Haladyna , 1997: 32).

In addition, explanations of how learning occurs have been viewed as inadequate, with no single theory adequately explaining “how all learning takes place” (Crowl et al., 1997: 23)

Several factors may account for these views about thinking and learning. First, different types of learning require different teaching strategies no single method works for all learning, although specific strategies work for specific types. Second, intelligence is no longer seen as an unchanging general ability but rather a kaleidoscope of abilities that can be affected by a variety of factors, including teaching strategies. Third, the understanding of the thinking process has shifted to a multidimensional view much more like a complex network of interactive capabilities rather than a linear, hierarchical, or spiral process. Fourth, the research over the last two decades has focused on more specialized topics such as insight, wait time for problem solving, visual imagery and metaphors, and schemata.

Despite the challenges related to defining higher order thinking, educators, administrators, and evaluators in Florida and across the nation have express thinking skills include critical, logical, reflective, metacognitive, and creative thinking. They are activated when individuals encounter unfamiliar problems, uncertainties, questions, or dilemmas. Successful applications of the skills result in explanations, decisions, performances, and products that are valid within the context of available knowledge and experience and that promote continued growth in these and other intellectual skills.

Lessons involving higher order thinking skills require particular clarity of communication to reduce ambiguity and confusion and improve student attitudes about thinking tasks. Lesson plans should include modeling of thinking skills, examples of applied thinking, and adaptations for diverse student needs.

Useful learning strategies include rehearsal, elaboration, organization, and metacognition (ibid).

Lessons should be specifically designed to teach specific learning strategies. Direct instruction (teacher-centered presentations of information) should be used sparingly. Presentations should be

short (up to five minutes) and coupled with guided practice to teach sub-skills and knowledge (Rosenwasser& Stephen, 2010: 25).

Teacher and/or student-generated questions about dilemmas, novel problems, and novel approaches should elicit answers that have not been learned already. Sincere feedback providing immediate, specific, and corrective information should inform learners of their progress.

Small group activities such as student discussions, peer tutoring, and cooperative learning can be effective in the development of thinking skills. Activities should involve challenging tasks, teacher encouragement to stay on task, and ongoing feedback about group progress.

## 2.5 Specific Methods and Strategies to Enhance Higher Order Thinking Skills

Once the teacher establishes the student centered classroom and creates a framework for incorporating thinking skills into lessons, he or she can then consider strategies and methods that can enhance students' thinking ability.

To reduce the risks of ambiguity and confusion and improve student attitudes about thinking tasks, the teacher should provide students clear instructions for assignments as suggested in the studies by Hines, Cruickshank, and Kennedy; and Snyder et al. (all cited in Kauchak & Eggen,1998).

For this reason, careful lesson planning is essential. Factors to consider in lesson planning include organization of activities, clarity of explanations, modeling of thinking skills in action, examples of applied thinking, feedback on student thinking processes, instructional alignment of objectives and activities, and adaptations for diverse student needs.

Kauchak & Eggen (1998) found that the following strategies contribute to the particular kinds of instructional communications necessary for developing higher order thinking skills.

1. Align learning goals, objectives, content ideas and skills, learning tasks, assessment activities, and materials and aids.
2. Establish organized activities and routines.
  - a. Prepare a task analysis of the thinking skill to be learned: identify the particular thinking skill to be learned, the prerequisite knowledge and skills, the sequence of related subskills, and the readiness of students to learn (diagnosis of prerequisite knowledge and skills).
  - b. Prepare sample problems, examples, and explanations.
  - c. Prepare questions that go beyond simple recall of factual information to focus on advanced levels of comprehension, such as How? Why? and How well? Plan strategies for diagnosis, guidance, practice, and remediation.
  - e. Explain and follow established routines, such as starting on time and following the planned sequence of activities.
  - f. Convey enthusiasm, genuine interest in a topic, warmth, and a businesslike approach with thorough preparation and organization, minimal transition time between activities, clear expectations, and a comfortable, nonthreatening atmosphere.
3. Explain the task clearly.
  - a. Set goals at the beginning of an assignment.
  - b. Provide examples of finished products.

- c. Avoid vague, ambiguous terminology such as “might,” “a little more,” “some,” “usually,” and “probably.” These terms suggest disorganization, lack of preparation, and nervousness.
  - d. Introduce tasks with a clear and simple organizing framework such as a diagram, chart, preview, or one paragraph overview.
  - e. Introduce key concepts and terms before further explanation and study.
  - f. Use questions that focus attention on important information.
  - g. Give emphasis with verbal statements, nonverbal behaviors, repetition, and written signals.
  - h. Make ideas vivid with pictures, diagrams, examples, demonstrations, models, and other devices.
4. Give transition signals to communicate that one idea is ending and another is beginning.
  5. Provide feedback at frequent intervals with a corrective feedback to clarify incorrect or partially incorrect responses.
- (Dhindsa & Shanmuganathan, 2002:.23).

### **3. Procedures**

#### **1. Population and Sample**

The population refers to any set of items, individuals, etc. which share some common and observable characteristics and from which a sample can be taken. (Richards et al ., 1992: 282).

The population of the present study includes English language instructors at Baghdad University. The word sample refers to any

group of individuals which is selected to represent a population (Ibid: 321). The logic of using a sample of subjects is to make inferences about some larger population from a smaller one (a sample). Forty English language instructors are chosen to represent the main study sample and other ten to represent the pilot administration.

### 3.2 The Instrument of the study

In order to fulfill the aim of the present study, which is “investigating Iraqi English university instructors difficulties in integrating thinking skills among students in the classroom” ,a questionnaire has constructed by the researchers.

The type of the questionnaire that used in this research is rating scales questionnaire. A strength of this type of questionnaire is that it elicits responses to specific questions in the form of scaled, quantifiable data which can then be subjected to powerful statistical analysis (Bachman & Palmer,1996: 243) .

The items of the questionnaire have been collected on the basis of interviews, the open ended questionnaire. After that, a checklist consists of 17 items has been conducted. ,as shown in table (1).These items supposed to elicit instructors’ opinions by three rating scales:

-I agree

-I partially agree

-I disagree

#### 3.4.2 Face Validity

Face validity refers to "the way the test looks to the examinees, supervisors or in general to the people concerned with the education of the students"(Al-Juboury, 2000:23) .

To ensure face validity, the checklist has exposed to a jury of experts in the field of English. They are especially required to

determine the suitability of items and to propose and make any necessary suggestions for modifications, deletion or addition that enrich and sharpen the checklist .

**Table (1) The Checklist items**

<b>N.o</b>	<b>Items</b>	<b>I agree</b>	<b>I partially agree</b>	<b>I disagree</b>
<b>1</b>	<b>Preplanning the lesson is a constraint.</b>			
<b>2</b>	<b>Teaching strategies are constraints.</b>			
<b>3</b>	<b>Classroom setting is too formal.</b>			
<b>4</b>	<b>Change from memory-based to thinking-based learning is difficult.</b>			
<b>5</b>	<b>Emphasis is on memory-based learning.</b>			
<b>6</b>	<b>Needs teacher's creativity in imposing culture of thinking in classroom.</b>			
<b>7</b>	<b>Student-centered learning is limited.</b>			
<b>8</b>	<b>Teaching thinking skills requires changing in curriculum.</b>			
<b>9</b>	<b>Changing exam-oriented to thoughtful curriculum is not easy.</b>			
<b>10</b>	<b>Exam-oriented educational</b>			

	system is a constraint.			
11	Time is a constraint in implementing thinking.			
12	Lack of experience to Integrate thinking skills in the lesson plan.			
13	Students cannot be active when it is too formal.			
14	Assessment is a constraint.			
15	Deep thinking activities are not possible.			
16	Lack of pedagogical methods to help students conceptualize problems and solutions.			
17	Teaching thinking skills need extra efforts.			

### 3.5 Pilot Administration

After constructing the checklist, a pilot study is required to find out exactly whether the questionnaire is well constructed or not. Ten teachers have been chosen randomly from different universities for the pilot administration. The pilot sample is excluded from the total sample of the study.

Results of the pilot administration can be a good indicator for making any necessary modifications in the final version of the checklist and to determine the effectiveness of the items in the light of the subjects' responses.

### 3.6 Final Administration of the Questionnaire

The Final version of the questionnaire has distributed to the participants at the end of November 2013 .The teachers are asked to give their views on the items according to scale of three dimensions . Teachers' responses have been utilized by the researchers. The period of distributing and receiving the copies of the questionnaire lasted from the end of November to the end of December 2013.

**Table (2) : Weighted Mean of the Questionnaire item**

Item (NO)	I Agree	I partially agree	I disagree	Weighted Mean
1	31	7	2	77.5%
2	28	10	2	70%
3	38	2	0	95%
4	34	6	0	85%
5	40	0	0	100%
6	35	5	0	87.5%
7	40	0	0	100%
8	35	3	2	87.5%
9	34	6	0	85%
10	24	11	5	60%
11	9	13	18	22.5%
12	28	11	1	70%
13	37	3	0	92.5%
14	18	7	15	45%
15	36	3	1	90%
16	25	13	2	62.5%
17	17	11	12	42.5%

### 3.7 Overall Performance

In order to investigate the hypothesis of the study ,the responses of the subjects are investigated by using the mean and the theoretical mean formula . The mean score of the subjects is (45.22) compared with the hypothetical mean (34). Result is that the calculated mean is higher than the hypothetical mean . This proves that Iraqi University instructors have difficulties toward integrating thinking skills in English language teaching. So , the hypothesis that is mentioned above is accepted.

Table 2 shows that most teachers strongly agree on “Student-centered learning is limited ( item 7)”, “Emphasis is on memory-based learning ( item 5)”, “Classroom setting is too formal ( item 3)”, “Students cannot be active when it is too formal ( item 13)” and “Deep thinking activities are not possible (item 15)” are the main problems that they face in integrating thinking skills in the classroom.

So, things to be changed according to ranks are 1) memory-based learning, 2) teacher-centered as opposed to student-centered learning, 3) formal classroom setting, 4) passive students and 5) surface thinking as opposed to deep-thinking activities.

Although teacher-centered learning dominates the classroom setting and student cannot be active when the classroom is too formal Dhindsa and Shanmuganathan (2002: 23) said that “Student’s traditional thoughts, can influence their learning practices” but they were willing, to some extent, to give their own opinions in their classes. It is natural for students to give their opinions when the teacher is not highly authoritarian. Teachers can make the setting more of student-centered and attempt to integrate thinking culture with student active participation. Wilson 2000 argues that “higher order thinking skills” need be integrated in the individuals so it will be useful in future.

Student-centered learning is limited is not only due to students are passive but “language appears to be another barrier that may hinder students from expressing their own views. English was

students' second or third language and students' fear a loss of identity when they are unable to communicate effectively

Teaching strategies are constraints to teachers in integrating thinking skills among students. The most dominant method of teaching in most classrooms is the expository method or teacher-centered method. For example, in such classes, it is the teachers, who usually dominate the lesson, where students tend to passively involve in the lesson. For instance, there would be hardly any active interaction between students and teachers.

In order to implement a culture of thinking in the classroom, the methods/styles of teaching may be changed from traditional teacher-centered to student-centered or constructive learning, whereby students' active involvement in the lesson such as questioning and doing activities are encouraged. Hence, in short, students' engagement in the classroom must be encouraged so that in the long run, they would be able to think creatively and critically, understand a particular concept and able to solve problems.

Although students are influenced by the traditional thoughts, teachers have to be creative and developed "new culture sensitive pedagogies" for teaching any subjects.

## **4. Conclusions and Recommendations**

### **4.1. Conclusions**

In integrating thinking skills in the classroom teaching, there are changes and constraints teachers have to face. Teachers and teaching in the classroom needs reorientation for the integration of teaching thinking skills. Most teachers came to conclude that thinking skill is difficult to implement because the students were used to the traditional approaches of teaching. Constant attempts have to be made in all teaching activities with thinking culture environment. Implementing thinking skills takes time. Teachers have to be familiarized with the thinking culture before thinking skills culture could be successfully implemented in the classroom.

This study is preliminary and more to be developed in the area. Further research on other aspects such as language of thinking, thinking dispositions, mental management, strategic spirit, higher order knowledge and teaching for transfer could be carried out in the near future.

## 4.2 Recommendations

In the light of the findings achieved and the conclusions derived, the researchers recommend that in redesigning pedagogy in integrating thinking culture in the classroom the followings are considered: lesson planning, thinking-based learning, teacher's creativity, thoughtful curriculum and teaching thinking skills across curriculum. As life is becoming more complex, jobs are disappearing fast, and knowledge and information are the most important input in modern productive system, thinking skills are much needed in the educational system. So in agreeing with the ideas of Wilson (2000) where "higher order thinking skills" need be integrated in teaching due to insufficient knowledge storage in student's memory, rote learning has its limitations. Individual students require transferable skills to allow them to address different problems in different contexts at different times throughout their lives. Changing the approaches, progressively, from teacher-centered to student-centered in the classroom setting is possible. There are four implications here

1. teachers must be well equipped with the various approaches and methods of teaching;
2. teachers must be well trained in the culture of thinking in the classroom,
3. schools must have goals in developing independent learners and thinkers, schools must encourage the implementation of

teaching approaches that develop thinking students and thinking culture in a progressive manner.

4. study skills must become a required part of the curriculum beginning in elementary schools,
5. teacher education programmes need to emphasize study skills knowledge and strategies that are content specific and will assist future teachers with ways to help their students achieve literacy in their subject areas,
6. staff development needs serious attention and reform, and
7. emphasis needs to be on real issues identified by the teachers, and the staff development needs to be content specific.

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