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Investigating Critical Thinking Skills among EFL Learners

Case study Sudan University Students College of languages department
of English language level three

تقصي مهارات التفكير النقدي لدى دارسي اللغة الإنجليزية لغة أجنبية

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الآية

قال تعالى:

﴿وَقُلْ رَبِّ زِدْنِي عِلْمًا﴾

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Dedication

This work is dedicated to loving daughter, exemplary extended family, and courageous mom, dad, my brothers and my sisters without their never ending support and encouragement this dream. Thanks for loving me more than anyone think.

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Insincerely appreciate the assistance of my committee :D Ayman Hamad ALneel , thank you for being so agreeable to take my project on and provide much needed guidance. Thanks for committee members whom guide me , D Abdulrhman, D helay & D Alti raifi. appreciate for their support and assistance me.,for second , special thank to D Ayman for his direction in choosing this research project and getting me of the good start ,additionally, especial thank to the college languages and its all members, for their opportunity to learn and grow personally, professionally while completing this project , thanks for your expertise , assistance and persistence with the completion this project

Abstract

Critical thinking includes the component skills of analyzing arguments, making inference using inductive or deductive reasoning, judging or evaluating and making decisions or solving problems. Background knowledge is a necessary but not a sufficient condition for enabling critical thought within a given subject. Critical thinking involves both cognitive skills and dispositions. These dispositions which can be seen as attitudes or habits of mind, include open and fair-mindedness, inquisitiveness, flexibility, a propensity to seek reason, a desire to be well informed and respect for and willingness and entertain diverse viewpoints. There are both general- and domain-specific aspects of critical thinking. Empirical research suggests that people begin developing critical thinking competencies at a very young age. Although adults often exhibit deficient reasoning in theory all people can be taught to think critically. Instructors are urged to provide explicit instruction in critical thinking, to teach how transfer to new contexts, and to use cooperative or collaborative learning methods and constructivist approaches that place student at the center of learning process. In constructing assessments of critical thinking, educators should use open-ended tasks, real-world or "authentic" problem contexts, and ill-structured problems that requires student to go beyond recalling or restating previously learning information. Such tasks should have more than one defensible solution and embed adequate collateral materials to support multiple perspectives. Finally, such assessment tasks should make student reasoning visible by requiring students to provide evidence or logical arguments in support of judgments, choice, claims, or assertions.

المستخلص

الفكر النقدي هو عبارة عن سلسلة من المهارات المكونة من تحليل الحجج و الاستدلال باستخدام المنطق الاستقرائي او الاستنتاجي بغرض الحكم، التقييم، اتخاذ القرارات أو حل المشكلات. والالمام بالموضوع هو ضروري ولكنه ليس شرطاً كافياً لتمكين الفكر النقدي في موضوع معين، وينطوي التفكير الناقد على حد سواء المهارات المعرفية والتصرفات وقد تكون هذه التصرفات مواقف او عادات مرتبطة بالعقل يتطلب نزاهة الذهن والمرونة والرغبة في ايجاد المعلومة بشكل جيد، والاحترام و الاستعداد لتقبل وجهات النظر المختلفة. هناك على حد سواء الجوانب العامة و الخاصة للتفكير النقدي. وتشير البحوث التجريبية أن عملية تطوير مهارة التفكير النقدي تبدأ في سن مبكرة جداً عند الانسان. و بالرغم ان هنالك قصور في مهارة التفكير النقدي عند الاشخاص البالغين الا ان هنالك نظرية تحت الجميع لتعلم مهارة التفكير النقدي.

ولذا نحث المعلمين على تقديم إرشادات واضحة في التفكير النقدي لمعرفة الكيفية التي تتم نقلها إلى سياقات جديدة، واستخدام أساليب التعلم التعاوني أو التعاونية والنهج البناء التي تضع الطلاب في قلب عملية التعلم. لتقييم مهارة التفكير النقدي يجب على المربي التعامل مع المهام المفتوحة و حالات للمشاكل مأخوذة من الواقع والتي تمكن الطلاب من استدعاء او تذكر معلومات تمت دراستها مسبقاً. وينبغي ان تكون لمثل هذه المهام اكثر من حل مقنع و ان يشتمل على مواد مضمونة التي تتخطى عن الاحتمالات متعددة الواجه . و اخيراً يجب ان لهذه المهام التقويمية الزام الطلاب لتقديم ادلة و حجج منطقية لدعم الاحكام و الخيارات و المطالبات او التاكيدات.

(التفكير النقدي ، وحل المشكلات)

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Chapter one

Introduction

1-0 Introduction:

The ability to think critically is an essentially life skills in every society, as the word changes at an ever –faster pace and wifehood become global. Young adults are entering an expanding diverse job markets. to help young Sudanese compete for jobs that did not even exist as a few years ago, it is necessary to know more than ever before to ensure that young adults possess the critical thinking power to flexibly and creativity adopt to new markets. In fact the majority of Sudanese university fail to teach critical thinking as part of curriculum, as result the majority of our learners do not practice it. University in Sudan need to amend curriculum to ensure that learners have developed a solid foundation of critical thinking skills , enabling young adults to be more successful in their pursuits after finishing their education in to days accountability climatecritical thinking activities can take a back to test preparation rather than on frustrating attempts to cram students full as simple recall facts in the weeks prior to around standard tests . Teachers and lectures are obligated to help students develop the critical skills necessary to synthesis the nuances of modern complex society beyond the personal benefits experienced by adults at critical thinking – more opportunities better jobs, higher income -society also benefits when the general populace can think creatively and insightfully. According to Pescatore (2007) for social change to occur citizen must not only think critically about what they read and view, but they must also react to transform the world " rather than accepting information at face value. Educated critical thinkers can thoughtfully explore the boarder perspectives of an issue. Critical thinking skills do not occur randomly or without effort; it takes structured, deliberate, and repetitive exposure and practice for students to develop insightful thinking developing , the ability to

think critically is an essential life skill. The intent of this research is to comprehensively explore current research and strategies for incorporating critical thinking in to Sudanese university English curricula.

1-1 state of the problem:

In order for university students to be prepared to compete for employment in a global world, all students must be able to think critically and strategically ; unfortunately, a problem exists because critical thinking strategies are not consistently taught in Sudanese universities translating to populace that is ill-equipped to easily adapt to rapidly changing world. Mendel man (2007) claimed that in a day and age in which more and more children grow up engaged with primarily. Passives.... Teaching critical reading is one of the most important and most difficulties burdens of the classroom. If the students are not exposed to and do not master the ability to think insightfully and critically, they will be unable to compete in modern global life. In order to better prepare our students for the challenge they will face. Universities need to explicitly teach critical thinking strategies equipping young people with twenty first century skills. the classroom presents a natural setting to practice critical thinking as it is customary for English instructor to work with students on analyzing on all types of text for word choice point of view , tone and structure to develop the skills of critical thinking " that can have clear relevance to students lives " a rigorous English curriculum, focused on an explicit , scaffold approach teaching students for employment.

1-2 Significance of the study:

The result of this study expanded the critical thinking education literature in that it looked at the development of critical thinking , young adults learners sickout , enter and participate in college because of their needs and their key life roles , also they value collegiate knowledge for their future . Many adult students to go community colleges and specialized to have better jobs so such study is considered significant to them.

1-3 Objective of the study :

The study tries to achieve the following objectives

- 1- To find out current strategies for developing critical thinking skills.
- 2- To assist educators whether they success or not in a structural approach in critical thinking skills at university.
- 3- To identify factors that influences the development of critical thinking skills.

1-4 Research question

The study attempts to find out the following questions

- 1- To what extent does the students success in their critical thinking skills in Sudan university .
- 2- What are the factors that influence the development of the critical thinking skills.

1-5 Research hypotheses

The study considers the following as hypotheses.

- 1- The researcher needs to assist educator's success implementing structure approach to critical thinking.
- 2- Current strategies are needed for developing critical thinking skills.

1-6 Research methodology:

Critical thinking skills is an essential life skills this study will explore current literature on critical thinking skills , including critical thinking instruction and strategies . to determine the usefulness of employing critical thinking strategy instruction in the curriculum. To do this the researcher will adopt descriptive analytical method. the main tool for data collecting passage test , this test will be conducted and implement by Sudan university students college of English language.

1-7 limits of the study:

The condition of the will inevitably be affected by the following limitations

- 1-the implementation of the study will have to be in the period of time during the year 2016
- 2-the study will be conducted for the Sudanese EFL learners .a potential limit is fact the subjects may not answer questions to the best of their ability.

Chapter two

Literature Review

Introduction:

Often when we use the word critical we mean "negative and fault –finding" this is the sense we have in mind ,for example when ,when we complain about apparent or friend who we think is unfairly critical of what we do or . but critical also means involving or exercising skilled judgment or observation " in the sense critical thinking means thinking clearly and intelligently .more precisely. Critical thinking is the general term given to a wide range of cognitive skills and intellectual dispositions needed to effectively identify analyze and evaluate arguments and truth claims, to discover and overcome personal and biases, to formulate and present convincing reasons in support of the conclusions, and to make reasonable intelligent decisions about what to believe and what to do . put somewhat differently. Critical thinking is disciplined thinking governed by clear intellectual standards among the most important of these intellectual standards are clarity, precision, accuracy, relevance, consistency, logical correctness, completeness, let us begin our introduction to critical thinking skills development by looking briefly at each of these important critical thinking standards

- Critical thinking skills standards clarity

-That may be profound. Or it may be none sense, or it may be both, whatever exactly it is . it is quite needlessly obscure book being and time temporality makes possible , the unity of existence, and falling and in this way primordially the locality of structure of the care. The items „of care have not been pieced together cumulatively and more than temporality it self In the course of time(Milder Zeit)

2.0 Precision –consistency:

It is easy to see why consistency is essential to critical thinking skills, logic tells us that if a person holds inconsistent beliefs at least one of those beliefs must be false, critical thinkers love truth and detest falsehood, for that reason critical thinkers are constantly on the lookout for inconsistencies both in their own thinking and in the argument, and assertion of others there are two kinds of inconsistency that should be avoided, one is logical inconsistency which involves saying or believing inconsistent things (eg things that cannot both or all be true) about a particular matter. The other is practical inconsistency – saying one thing and doing another thing. Some time fully aware that their words conflict with their deeds. The Politician who cynically breaks her campaign promise, once she takes office the TV evangelist caught in an extramarital affair the drug counselor arrested for selling drugs such people are hypocrites pure and simple from a critical thinking point of view, such examples not especially interesting as the rules, they involve failure of character to a greater degree than they do failures of critical reasoning. More interesting from critical thinking standpoints are cases in which people are not fully aware that their words conflict with their deeds such as cases highlight an important lesson of critical thinking that human beings often display are remarkable for self. (Farid kushercites is typical example) ask the average person which is more important to him making money or being devoted to his family, and virtually ever you will answer family without hesitation, but watch how the average person actually lives out his life. See where he really invests his time and energy, and he will give away the fact that he really does not live by what he says, he believes, he has let himself be persuaded that if he leaves for work; earlier in the morning and comes home more tired at night, he is upset how

devoted he is to his family by expending himself to provide them with all the things they have seen advertised. Critical thinking help us be came away of such unconscious practical inconsistencies, enabling us to deal with them on a conscious and rational basis. It is also common of course, for people to unknowingly hold in consistent beliefs about a particular subject. In fact, as Socrates pointed out long ago such unconscious logical in consistency is for more common than most people suspect, as we shall see, for example many today claim that morality is relative, while holding variety of views that imply that it is not relative , critical thinking helps us recognize such logical inconsistencies or still better avoid them altogether

Critical thinking skills are skills that children (and adults) need to learn to be able to solve problems. This include, and analyzing and evaluating information that is provide, whether that information thinking, all of which are necessary for the future development is through observation, experience or communication, the core of critical thinking is being responsive to information and not just accepting it, questioning is the most important part of critical thinking, it is a part of scientific, mathematical, historical, economic and philosophical of our society.

- A brief history of the idea of critical thinking.
- Critical thinking –basic questions & answers.
- Our concept and definitions of critical thinking.
- Summers definitions of critical thinking.
- Research critical thinking.
- Critical thinking societies thoughts from the past: is the awakening of the intellect to the study of itself

Is a rich concept that has been developing throughout the past 2500 years The term critical thinking has used roots in the mid late 20th century, we offer here overlapping definitions. Together which from substantive, transdisciplinary conception of critical thinking.

Critical thinking as defined by the national council for excellence in critical thinking (1987).

A statement by Micheal Scriven & Richard Paul, presented at the 8th annual international conference on critical thinking is the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing synthesizing and evaluating information gathered form, or generated, by observation, experience .reflection action ,in this exemplary form it is based on universal intellectual values that transcended subject matter divisions :clearly ,accuracy ,precision consistency ,relevance sound evidence ,good reasons ,depth .breath ,and fairness .it entails the examination of those structure or elements of thought implicit in all reasoning :purpose ,problem or question –at – issue ,assumptions; concepts empirical grounding ;reasoning leading to conclusions; implications and consequences ;objections from alternative viewpoints ;and frame of reference .critical thinking- is being responsive to variable subject matter ,issues; and purpose-is incorporated in a family of interwoven modes of thinking ,historical thinking ,anthropological thinking ,economic thinking ,moral thinking and, when grounded in selfish motives , it manipulation of ideas in service of one; sown ,or ones groups ,vested interest . as such it is typically intellectually flawed ,however pragmatically successful it might be when grounded fair mindedness and intellectual integrity ,it though subject to the charge of "idealism " by those habituated to it selfish use .critical thinking of any kind is never universal in any individual; everyone is subject to

episodes of indiscipline or irrational .its quality is therefore typically and matter of degree and dependent-on among other thing the quality and depth of experience in a given domain of thinking or with respect to particular class of question .no one is a critical thinker thought and –though ,but only to such – and such a degree and with such ,such insights and blind spots ,subjects to such – and such tendencies towards self delusion .for this reason, the development of critical thinking skills and dispositions is a lifelong endeavor .also is conceptualization of critical thinking ,it self guided .self disciplined thinking which attempts to reason at the highest level of quality in affair minded way .people who think critically consistently attempt to life rationally ,reasonably ,empathically .there are keenly aware of the inherently flawed when left unchecked they strive to diminish the power of their egocentric and sociocentric tendencies they use the intellectual tools that critical thinking offers –concepts and principles that enable them to analyze ,assess ,and improve thinking they work diligently to develop the intellectual virtues of intellectual integrity ,humility,- civility ,- empathy ,-sense of justice and confidence in reason .they realize that no matter how skilled they are as thinkers , they can always improve their reasoning abilities and they will at times fall prey to mistakes in reasoning ,human irrationality ,prejudice ,bias ,distortions .in critically accepted social rules and taboo,, self-interest ,and vested interest , they strive to improve the world in whatever ways they can ,and contribute to a more rational the same time ,they recognize the complexities often inherent in doing so . they avoid thinking simplistically about complicated issue and strive to appropriately consider the rights and needs of relevant others .they thinkers and commit themselves to life –long practice towards self improvement . they embody the(Socratic principle : ((

the unexamined life is not worth thing ,because they realize that many unexamined lives together result in an uncritical ,unjust ,dangerous world

Linda Elder, September,(2007)

Why critical thinking: - the problem - everyone thinks ,it is our nature to dose ,but much of our thinking ,left to itself ,is biased ,distorted ,partial ,uniformed or down –right prejudiced yet the quality of our life and that of what we produce , make ,or build depends precisely on the quality of our thought .shoddy thinking in costly , both in many and quality of life .excellence in thought ,however ,must be systematically cultivated .----critical thinking is that mode of thinking –about any subject ,content ,or problem- in which the thinker improves the quality of his her thinking by skillfully taking change of the structure inherent in thinking and imposing intellectual standards upon them --- the result . A well cultivated critical thinker –raises vital questions and problem, formulating them clearly and precisely .- gather and assesses relevant information ,using abstract ideas to interpret it effectively comes to well ,reasoned conclusions and solution testing them against relevant criteria and standards ,- thinks open mindedly within alternative systems their assumptions, implications and practical consequences ,-communicates effectively with others in figuring out solutions to complex problems ----- critical thinking skills in short self directed ,self disciplined ,self monitored ,and self corrective thinking ,it presupposes assent to rigorous standards of excellence and mindful command of their use .it entails effective communication and problem solving abilities and commitment to overcome-our native egocentrism and sociocentrism (takes from Richard Paul and Linda Elder , the miniature guide to critical thinking concepts and tools –foundation for critical thinking press 2008)

Critical thinking by Edward Glass)- in a seminal study on critical thinking and education in (1941) ,Edward Glass defines critical thinking as follows, the ability to think critically ,as conceived in this volume ,involves three things =
 -an attitude of being disposed to consider in a thoughtful way the problems and subjects that comes within the range of one's experience and reasoning ,- some skill in applying those methods ,critical thinking calls for a persistent effort to examine any belief or supposed form of knowledge in the light of the evidence that supports it and the further conclusions to which it tends .it also generally requires ability to recognize problems ,to find workable means for meeting those problems together and marshal of appraise evidence and evaluate arguments to recognize the existence (or none existence)of logical relationships to put to test the conclusions and generalization as which one arrives ,to reconstructed ones patterns of belief on the basis of wider experience ,and to render accurate judgments about specific things and qualities in everyday life .

(Edward . M Glass ,an experiment in the development of critical thinking teacher's college ,Collbia university 1941) .

Educators have long been aware of the importance of critical thinking skills as an outcome of student learning. More recently the critical thinking skills identified as the one the several learning created and innovation skills necessary to prepare for students, in addition ,the newly created common core state standards reflect critical thinking as a cross-disciplinary skill vital for college and employment .despite widespread recognition of its importance ,there is a notable lack of consensus regarding the definition of critical thinking . the purpose this study is to ways (a)explore the ways in which critical thinking has been defined by researchers ,(b) investigate learn how

critical thinking develops (c) learn how teachers can encourage the development of critical thinking skills in their students ,and (d) review best practices in assessing critical thinking skills .

How do you do with Critical thinking ?

Any one in enrolled in academic study will have asked this question – often repeatedly –and come up against the problem of getting a swift answer, while you could say that critical thinking is at the heart of academic study , it's more of a process, a way of thinking , understanding and expressing ourselves, than a single definable skills(which why a critical thinking skills checklist has been included ?

Identify what's important –what are the key ideas –problems- arguments ,observation, findings, conclusion?

- What evidence?

Distinguish critical from other types of writing(eg- descriptive) fact from opinion bias from reason

- Evaluate what you find

- explore the evidence, does it convince? –what assumptions are being made and inference drawn?-is there any engagement with relevant up to date research?

- how appropriate are the methods of investigation?-is there consistent and logical line of reasoning ?-do you agree with what's being said ?why?-how is language being used(emotive biased etc)

- look beyond what you are reading / hearing. –what other viewpoints interpretation and perspective there are? What's the evidence for these? How do they compare?- how does your prior knowledge and understanding relate to these ideas, finding, observations etc?-what are the implication what you are reading/ hearing ?

2.1 Clarifying your point of the view:

-weigh up the relevant research in the area – find effective reasons and evidence for your views-reach conclusions on the basis of your reasoning – illustrate your reasons with effective examples when you are asked to engage critically with texts to critically evaluate, a theory of findings, to develop a critical analysis in your written work ,you are being asked to a number of skills and demonstrate a number of qualities, at the same time, understanding what these are ,and learning to use them effectively –is something you develop over time and with the help of tutors', lectures and peers.

Fundamentally, critical thinking is about using your ability to reason. It's about being active (as opposed to passive) in your learning , it means that when you approach an idea, you do so with scepticism and doubt ,rather than with in questioning acceptance , you are always questioning whether the ideas, arguments, and the findings you are coming across are the whole pictures and you are upon finding that they are not. you are identifying ,analyzing and where possible, solving problems systematically.- arguments here are not squabbles between people –though they do evaluate other people's ideas- they are the way in which ideas are developed and organized in to a line of reasoning which moves in logical order to the conclusion and which aims to persuade the reader or listener of validity of the point of the view presented –

being able to discern and create structured, reasoned, arguments is central to critical thinking ("good critical thinking includes recognizing good arguments even when we disagree with them, and poor arguments even when these support your own point of view") Cottrell, S.

When you find critical thinking skills at university you will need to demonstrate your critical thinking skills in a variety of areas:

- critical reading: when you read you need to ask questions about the text this will keep you focused and help you to develop an understanding of the text

- reading strategies- at university you have to read for various purposes, to prepare for seminars, lectures, workshops and for assessment (eg-essays). In this section we will take you through various strategies because when reading an academic text for university study we provide you with general principles in relation to these strategies, tips from students and the opportunity to practice reading using different approaches.

- thinking about your purpose for reading – skimming and scanning – understanding difficult texts – questioning as you read – highlighting and annotating – make notes – summarizing,.

- Evaluating argument,

When reading a text containing an argument, you need to evaluate whether it makes sense and is well supported. _ critical writing – when writing, you make sure that your writing is clear and your argument is well structured. _ How can you criticize what an expert says? Initially, students often feel anxious criticizing ideas, evidence etc. that they come across in their reading or in lecture. Some may feel that it's work. What you need to remember here is that

you are not being critical in the sense of being negative (although you might be)and you are certainly not rubbishing ideas without to what you say _ critical thinking is not just about what you think , it's about what you think and argue . you are critical in the sense of analyzing , ideas , observations, experience and reasons, exploring the evidence and carefully considering whether something makes sense and is accurate.

2.2 Critical thinking skills - typical comments:

I'm not sure what they when they ask us to critically evaluate .the word critical sounds so negative as though you have to undermine every thing , the word analysis always sounds like some thing difficult and technical, really ,do not feel sure what these terms means, how can I, be critical of some thing when I, do not know much about it

The aims of study –

-Show how you are already a critical thinker „clarify key terms „outline acritical academic texts,,

2.3 Critical thinking skills in very day activity:

We tend to receive knowledge passively at many stage of education, although we can be highly critical in other aspects of life. Critical thinking and analysis is an every day activity even if we do not think of it as that, every time you have to make a decision , he process can become al most automatic.

Useful example of a situation where you think critically is buying a second-hand car Hardly anyone would by a car on face value, instead, regardless of your knowledge , you would go through around process of critical analysis.,

this might involve looking at thinking like the tyres, brakes ,pain work, lights and for each of these you would have criteria a rough idea of what constitutes good brakes ,good lights and so on .after thinking critically about each element, you might ask for extra evidence (record of services) you can then do your own initial evaluation by weighing up the good and bad points, and decide whether or not the car meets your needs an is a good by . if necessary you can call in expert opinion to give further detailed analysis on aspects you are not sure about , and you can then make your final evaluation and decision , with experience, you get a better idea of what to look for and what questions to ask .with most second-hand purchases, we would have a general idea of what to look for because we know what the item should do ,and what we want to use it for. This give us a rough set of criteria for a critical analysis and evaluation , in academic study the / the the key is to start developing ideas about what makes up (good)or sound argument) in a piece of reading or our own writing, and what criteria we need to apply to test this

- Key terms:-

Critical thinking is general term that covers all thinking processes that strive to get below the surface of the some thing –questioning , probing , analyzing , testing , and exploring it is not a negative term as such , although it can sound it . Critical thinking requires detective – like skills of persistence to examine and re-examine an argument ,in order to take in all the angles and weigh up evidence on every sides., to think critically involve particular processes, in particular breaking down the parts and looking at them more closely. Think back to the second-hand car) it involves::standing back from the information given and examining it carefully from different angles – checking the logic – whether points follow each other logically –checking the accuracy of

statement –spotting flaws or jumps in the reasoning – identifying gaps – arguments or information that might be relevant but has been left out – checking for the persuasive techniques, which encourage you to agree.—

Evaluation ---to evaluate or critically evaluate is to reach a conclusion through a process of critical thinking about the value, or soundness an academic argument. –**Critical analysis**—is a key activity in evaluate , evaluation is about weighing up the strength and weaknesses of an argument in order to decide how much it contributes to particular body of knowledge in your subject

2.4 Developing a critical approach:

first steps =you do not need to have detailed knowledge of your subject to think critically , the guide below gives some initial critical questions to start asking in different study contexts it can help to start with very basic critical questions which become more and confidence increase. **Lectures**-- *is this clear? am I understanding this? if not ,why not?*what is overall theme and idea here ? *any aspects I Don't understand? Why? Terminology / language ? - How might I use this? What notes are a viable? - any idea I want to follow up later? Find related reading ? **Reading** –for detail see, active reading, leaflet. – what do I want to read ? How would I select? –what types of reading is this? Is difficult? Why? – what's generally being said? Clear points? Worth reading? How dose it compare to similar texts? How might use it? –are the ideas backed up with evidence? Convincing?- are there similar views to support this idea? Alternatives? –is not thing covered here that I expected? Why not ?

2.5 Stages of critical thinking :

Lynch, Wolcott, and Huber (2002) shared four steps to the developmental sequence of critical thinking skills. Step(1) involves identifying a problem looking at relevant information, and identifying the uncertainties that –many exist. Step (2) is characterization by exploring the various interpretation of a problem and looking for connections from previous learning experience, Step(3) requires the prioritization of alternatives to a problem and implementing Step (4) has the critical thinker envisioning a solution to a problem and directing strategic innovation. The four steps are built upon the foundation of knowledge and skills. Lynch- et al (2002) identified five stages of critical thinking skills – the first stage is confused fact-finders and attributed to entry –level students typically entering the college classroom. These students are looking for a single answer and typically want answer from others, especially experts. These students quote from the text and give illogical-arguments these students demonstrate weakness in all the steps of the critical thinking skills developmental sequence mentioned previously. The second stage of critical thinking identified by Lynch-et al, (2002) is termed" a biased jumper" or a student who easily jumps to conclusions and then looks for supporting evidence. The biased jumper is unaware of personal biases and often ignores contradictory evidence and believes this personal opinion is availed from evidence. Lynch,et al indicate students in the second stage display adequate step(1) skills of being able to identify a problem and its relevant information and uncertainties but are weak in all the remaining steps. In the third stage of critical thinking is the perpetual analyzer, (Lynch,et al.,2002).students in this stage are unable to prioritize information or reach and defend solutions. They exhibit "analysis paralysis" and cannot move beyond the

process of analyzing a problem to reach a conclusion. These student demonstrate adequate step(1) skills achieve step (2) skills of exploring interpretation and connection, but they are weak in the remaining skills of prioritizing and innovation . the fourth stage is labeled "pragmatic performer "(Lynch,et al 2002) the pragmatic performer examine the evidence objectively and reaches a conclusion . the solutions to problems and this stage tend to be pragmatic and thoughtful . the pragmatic performer stops the continuation of analysis when a solution reached . Attention to the limitations of solution to problem or long term outlook is implemented. the pragmatic performer is not stuck in the over-analyzing stage. adequate development of step 1, 2 and 3 skills are achieved . weakness in step 4,skills are noted this stage . the final stage of critical thinking skills acquisition is termed the " strategic revision (Lynch,et al 2002). The individual in this state seeks lifelong learning and continuous self –improvement . the individual anticipates change and finds ways to get around anticipated limitations as well as the constraints of assumptions . the strategic revisionist is adept in the all steps of the critical thinking developmental sequence . the information compile,(Lynch, et al). Is helpful in knowing where students are envisioning where a teacher would like them to be .

2.6 Theoretical Background:

Critical thinking has roots in two primary academic disciplines : philosophy and psychology(Lewis&Smih 1993).Sternberg (1986) has also noted a third critical thinking strand within the field of education . these separate academic strands have developed different approaches to defining critical thinking that reflect their respective concerns . each of these approaches is explored more fully below .

2.7 The philosophical approach:

The writings of Socrates ,Plato ,Aristotle ,and more recently , Matthew Lipman and Richard Paul ,exemplify the philosophical approach , this approach focuses on the hypothetical critical thinker ,enumerating the qualities and characteristics of this person rather than the behaviors or actions the critical thinker can perform (Lewis&Smith ,1993; Thayer-Bacon,2000) . Sternberg(1986) has noted that this school of thought approaches the critical thinker as an ideal type , focusing on what people are capable of doing under the best of circumstances .accordingly ,Richard , (1992)discusses critical thinking in the context of perfections of thought , this preoccupation with the ideal critical thinker is evident in the American philosophical Association ,s consensus portrait of the ideal critical thinker as someone who is inquisitive in the nature , open-mind ,flexible , fair-minded , has desire to be well-informed , understands divers viewpoints ,and is willing to both suspend judgment and to consider other perspectives (Facione,1990).those working within the philosophical tradition also emphasize qualities or standards of thought for example ,Bailin (2002)defines critical thinking as thinking of particular quality –essentially good thinking that meets specified criteria or standards of adequacy and accuracy . a application of normal rules of logic (Lewis & Smith, 1993;Sternberg ,1986) one limitation of this approach to defining critical thinking is that it does not always correspond to reality (Sternberg,1986). By to do ,this this a approach may have less to contribute to discussions about how people actually think.

2.8 The cognitive psychological approach:

The cognitive psychological approach contrasts with the philosophical perspective. the in two ways . First cognitive psychologists, particularly in those immersed in the behaviorist tradition and the experimental research paradigm ,tend to focus on how people actually think versus how they could o should think under ideal conditions (Sternberge,1986)Second ,rather than defending critical thinking by pointing to characteristics of the ideal critical thinker or enumerating criteria or standards of "good" thought those working in cognitive psychology tend to define critical thinking by the types of actions or behaviors critical thinkers can do .typically, this approach to defining critical thinking includes a list of skills or procedures performed by the critical thinkers (Lewis &Smith , 1993) .philosophers have often criticized this latter aspect of the psychological approach as being reductionist _ reducing a complex orchestration of knowledge and skills in to a collection of disconnected steps or procedures (Sternberge, 1986). For example , Bailin (2002) argues that it is a fundamental misconception to view critical thinking as a series of discrete steps or skills , and that this misconception stems from the behaviorist's need to define constructs in ways that are directly observable . According to this argument , because the actual process of thought is unobservable , cognitive psychologists have tended to focus on the product of such thought _ behaviors – e g ,analysis ,interpretation , formulating good question).other philosophers have also cautioned against confusing the activity of critical thinking with its, component skills (facione,1990) arguing that critical thinking is more than simply the of its parts (VanGelder 2005).indeed ,a few proponents of the philosophical tradition have pointed out that it is possible to simply "go

through the motions," or proceed through the steps "of critical thinking without actually engaging in critical thought (Bailin,2002).

Definition of critical thinking that have emerged from the cognitive approach include " the mental process ,strategies ,and representations people use to solve make decisions and learn new concepts (Sterberg,1986) the use of those cognitive skills or strategies that increase the probability of a describe outcome (Halpern,1998) ; seeing both sides of an issue ,being open to new evidence that disconfirms year ideas, reasoning dispassionately ,demanding that claims be backed by evidence ,deducing and inferring conclusions from a viable facts ,solving problems ,and so forth "(Willingham,2007)

2.9 The educational approach:

Finally ,those working in the field of education have also participated in discussions about critical thinking . Benjamin Bloom and his associates are included in this category . their taxonomy for information processing skills (1956) is one of the most widely cited sources for educational practitioners when it comes to teaching and assessing higher-order thinking skills . Bloom's taxonomy is hierarchical ,with comprehension " at the bottom and evaluation at the top the three highest levels (analysis ,synthesis and evaluation) are frequently said to represent critical thinking (kenedy et al.,1991)the benefit of the educational approach is that is based on years of classroom experience and observation of student learning ,unlike both the philosophical and the psychological traditions (Sternberg, 1986)how ever, some have noted that the educational approach is limited in its vagueness ,concepts within the taxonomy lack the clarity necessary to guide instruction and assessment in a useful way (Ennis,1985;Sterberg,1986) furthermore ,the frame works developed in

education have not been tested as vigorously as those developed within in education either philosophy or psychology (Sterberge 1986)

2.10 Importance of background knowledge:

Most researchers working in the era of critical thinking skills on the important role. of background knowledge in particular ,most researchers see background knowledge as essential if students are to demonstrate their critical thinking skills (Case ,2005; Kennedy et al .,1991; Willingham,2007) as McPeck(1990) has noted , to think critically, students need something to think critically about .similarly ,Bailin et al.(1999) argue that domain-specific knowledge is indispensable to critical thinking because the kinds of explanations ,evaluations ,and evidence that are most highly valued vary from one domain to another .Facione (1990) notes the following :

Although the identification and analysis of critical thinking skills transcend, in significant ways specific subjects or disciplines, learning and apply these skills in many contexts requires domain-specific knowledge. This domain specific knowledge includes understanding methodological principles and competence reasonable judgments in those specific contexts ... too much of value is lost if critical thinking is conceived of simply as a list of logical operations and domain-specific knowledge is conceived of simply as an aggregation of information .

2.11 Motivation:

Critical thinking is also related to motivation. for example ,most researchers view critical thinking as including both skills . ,or abilities , and dispositions. The disposition to think critically has been defined as the "consistent internal

motivation to engage problems and make decisions by using critical thinking "(Facone,2000) thus ,student motivation is viewed as a necessary precondition for critical thinking skills and abilities .similarly, Halonen notes that a person's propensity ,or disposition ,to demonstrate higher-order thinking relates to their motivation (1995). Halnen(1998)argues that offer and persistence are two of the principal disposition that support critical thinking , and Paul maintains that perseverance is one of the traits of mind " that renders someone a critical thinker (1992) thus , like metacognition , motivation appears to be a supporting condition for critical thinking in that unmotivated individuals are unlikely to exhibit critical thinking . on the other hand , several motivation researchers have suggested that the causal link goes the other ways . in particular , some motivation research suggests that difficult or challenging tasks ,particularly those emphasizing higher-order thinking skills .may be more motivating to students than easy tasks that can be solved through the rote application of a predetermined (Turner,1995)

2.12 Creativity:

Many researchers have made connections between critical thinking and creativity(Bailin;Bonk&Smith,1998;1985;Paul&Eder ,2006Thayer-Bacon, 2000) at the first glance ,critical thinking and creativity might seem to have little in common ,or even to be mutually exclusive constructs . However ,Bailin (2002)argues that a mount a certain of creativity is necessary for critical thought .Paul and Eder (2006) note that both creativity and critical thinking are aspects of good purposeful thinking .as such critical thinking and creativity are two sides of the same coin. Good thinking requires the ability to generate intellectual products, which is associate with creativity .however , good thinking also requires the individual to be aware ,strategic ,and critical about

the quality of those intellectual products . as the authors note ,critical thinking without creativity reduces to mere skepticism and negativity ,and creativity without critical thought reduces to mere novelty .

2.13 Critical thinking over time:

Little is known about the development of critical thinking skills and disposition over time ,the performance-based assessments for example , has specifically cautioned that its framework for critical thinking should not be interpreted as implying any kind of developmental progression or hierarchical taxonomy (Facione,1990).a few empirical studies have investigated the evolution of critical thinking skills and abilities as students proceed through college ,(O' Hare and McGuinness (2009) found that the critical thinking scores of third-year university students in Ireland were significantly higher than the corresponding scores of the third-year students .the authors speculated that attending university exerts an independent effect on the development of the critical thinking . in a meta-analysis of eight studies from 1991to 2000,Gellin (2003)concluded that college students who engaged in activities such as interacting with faculty and peers ,living on campus , and participating in college clubs or organizations increased their measured critical thinking skills standard deviation as compared to college students who did not participate in such activities . one of the only researchers to postulate at developmental progression of critical thinking skills and abilities is Kuhn (1999), who synthesized a wealth of empirical research on cognitive development to construct such a progression . Kuhn's definition of critical thinking draws from the literature on metacognition , which she views as being related to critical thinking . she distinguishes three forms of metacognition, which represent successively more sophisticated ways of thinking .Metacognitive

understanding is thinking that operates on declarative knowledge . in other words , it is concerned with cataloging what an individual knows and how that individual comes to know it . – meta-strategic knowing is thinking that operates on procedural knowledge .thus this type of cognition is concerned with monitoring and evaluating strategy use ,as well as answering questions such as "Am I making progress?" and is this strategy working ? Finally, epistemological understanding is concerned with philosophical questions, such as, How does anyone know anything"

2.14 Domain Specificity:

The debate about domain specificity has implications for critical thinking instruction. Ennis (1989) described four instructional approaches that vary in terms of the extent to which critical thinking skills are taught as stand-alone course versus integrated in to regular instruction. the general approach entails and explicit instruction in critical thinking skills as separates course , where critical skills and abilities are emphasized outside the context of specific of subject matter. Typically, some content is involved to contextualize examples and takes. However, the content is not related to discipline specific knowledge, but tends to be drawn from problems that students are likely to encounter in their daily lives. Van Gelder (2005) appears to advocates for the general approach to critical thinking instruction. Drawing from the literature on the expertise , Van Gelder argues that students need "deliberate practice "in exercising critical thinking skills and abilities . this type of practice can only occur when critical thinking is taught as a separate and explicit part of the curriculum . however, students must be taught to transfer critical thinking to a variety of contexts by providing them skills in diverse contexts. Similarly, , Halpern (2001) argues that instruction in general thinking skills , taught as

"broad-based, cross-disciplinary" course, is the most effective way of teaching critical thinking . the infusion approach entails in-depth instruction in the subject matter plus explicit instruction on general critical thinking principles this critical thinking instruction is provided in the context of specific subject matter. Ennis (1989) indicates that this approach is only seen in the across the curriculum movements. Somewhat related to the infusion approach is immersion. In immersion instruction , students are engage in deep subject-matter instruction . although critical thinking skills and abilities as part of the content to be learned, critical thinking instruction is not made explicit . In other words , critical thinking skills and abilities are not the focus of direct and explicit instruction . thinking must go hand-in-hand with instruction in basic skills, such as reading, writing, listening, and speaking .Silva(2008)echoes this viewpoint, maintaining that knowledge and thinking have to be taught simultaneously. Likewise, Case (2005) argues that critical thinking is lens through which to teach the content and skills embedded in the curriculum; and Pithers and Soden (2000) reject the view that critical thinking could taught as a separate subject. Rather ,critical thinking should be viewed as a way of teaching and learning in any domain.

Finally, the mixed approach combines elements of both the general and subject-specific approaches. Teachers pair stand-alone instruction in general critical thinking principles with application of critical thinking skills in the context of specific subject matter. Explicit instruction in critical thinking skills can be incorporated into both the general and the specific components (Ennis,1989).Facione (1990) appears to advocate for this approach when he notes that critical thinking can be taught in the context of domain-specific content, or content drawn from "events in every life. Paul

(1992) recommends basic critical thinking skills course , as well as including critical thinking within discipline-specific courses .Kennedy et al (1991),after reviewing extant research on the various a approaches, conclude that the evidence does not support the superiority of any particular approach. Accordingly , they recommend is of many empirical studies on the effects of instructional interventions on students , critical thinking skills and dispositions, Adrami et al (2008)found that a substantial across studies was driven by pedagogical grounding and by type of interventions . in other words when instructional approach was categorized as general, immersion , infusion , or mixed, the mixed approach had the largest effect-sizes and the immersion approach had the smallest. This finding suggest that educators should approach critical thinking instruction both by integrating critical thinking in to regular academic content and ,by teaching general critical thinking skills as a stand-alone component .this finding reinforces the importance of providing explicit instruction in critical thinking rather than simply viewing critical thinking as an implicit goal of accurse. the authors also found that interventions in which educators received special training in teaching critical thinking had the largest effect-sizes, compared to studies in which course curricula were simply aligned to critical thinking or critical thinking was simply included as an instructional objective. Thus, successful interventions may require professional development for teachers specifically focused on teaching critical thinking (Abrami et al(2008)

Summary

Educators have long seen critical thinking as a desirable educational outcome. More recently, the partnership for 21st century skills has identified critical thinking as one of several skills necessary to prepare students according their

level education and the workforce. Furthermore, the newly created common core state standards reflect critical thinking skills. Although a concrete definition of critical thinking on which most researchers can agree remains elusive, common areas of overlap exist among the various approaches. Typically, critical thinking is believed to include the component skills of analyzing arguments, making inferences by using inductive reasoning, judging or evaluating, and making decisions or solving problems. Background knowledge is believed to be a necessary, though not sufficient, condition for enabling critical thought within a given subject. Critical thinking entails cognitive skills, or abilities, and dispositions. Which can be seen as attitudes or habits of mind, include open- and fair mindedness, inquisitiveness, flexibility, propensity to seek reason, a desire to be well-informed, and a respect for and willingness to entertain diverse viewpoints. There appear to be both general and domain-specific aspects of critical thinking, which suggests two main conclusions. First, instruction should represent a fusion of preparation in general critical thinking principles, as well as practice thinking in applying critical skills within contexts of specific domains. Second, transfer of critical thinking skills to new contexts is unlikely to occur unless students are specifically taught to transfer by sensitizing them to deep problem structures and are given adequate opportunities to rehearse critical thinking skills in a variety of domains.

Critical thinking skills relate to several other important student learning outcomes, such as metacognition, motivation, collaboration, and creativity. Metacognition supports critical thinking in that students who can monitor and evaluate their own thought processes are more likely to demonstrate high-quality thinking. In addition, the ability to critically evaluate one's own

arguments and reasoning is necessary for self-regulated learning. Motivation supports critical thinking in that students who are motivated to learn are more likely to persist at tasks that call critical thinking. In turn, activities and assessment tasks that call for critical thinking may spark student motivation because they are more challenging, novel, or interesting. Students possessing critical thinking dispositions, such as willing to consider diverse perspectives, may make better collaborators, and opportunities for collaboration may promote higher-order thinking. Finally, creativity requires the ability to critically evaluate intellectual products, and critical thinking requires the open-mindedness and flexibility that is characteristic of creative thinking. Although learning progressions of critical thinking skills and dispositions do not yet (and may never) exist, at least one researcher has tied the progression of critical thinking skills to cognitive development in general and metacognition in particular. Empirical research in the area of metacognition suggests that people begin developing critical thinking competencies at a very young age and continue to improve them (or not) over the course of a lifetime. Many adults exhibit deficient reasoning and fail to think critically. However, in theory, all people—from all intellectual ability levels and from the very young to the very old—can be taught to think critically.

If teachers are to be successful in encouraging the development of critical thinking skills explicit instruction in critical thinking needs to be included in the curriculum, whether that instruction occurs as a stand-alone course, is infused in to subject-matter content, or both. Cooperative or collaborative learning methods hold promise as a way of stimulating cognitive development, along with constructivist approaches that place students at the center of the learning process. Teachers should model critical and provide concrete

examples for illustrating abstract concepts that students will find salient. Assessing critical thinking skills poses challenges that are similar to those in other measurement contexts. Standardized instruments that use multiple-choice items to measure limited aspects of critical thinking may meet reliability standards, but these standardized instruments are vulnerable to criticisms of construct underrepresentation. Performance-based assessments (PBAS), which are seen as more valid representations of the construct, are susceptible to low reliability and administration cannot be standardized. When such standardization cannot be assured should not be used to compare students to one another or to track student progress or growth over time. On the other hand, when performance-based assessments are used for low-stakes, classroom assessment purpose, the need for strict standardization can be relaxed.

Educators are urged to use open-ended problem types and to consider learning activities and assessment tasks that make use of authentic, real-world problem contexts. In addition, critical thinking assessments should use ill-structured problems that require students to go beyond recalling or restating learned information and also require students to manipulate the information in new or novel contexts. Such ill-structured problems should also have more than one defensible solution and should provide adequate collateral materials to support multiple perspectives. Stimulus materials should attempt to embed contradictions or inconsistencies that are likely to activate critical thinking. Finally, such assessment tasks should make student reasoning visible by requiring students to provide evidence or logical arguments in support of judgments, choice, claims or assertions.

2.15 Previous study:

Research related to this study before

Development of critical thinking at California university , By Brent Tyler Leach- May 2011 he recommended that faculty must be instructed in effective teaching methods that include .

- Sharing videotaped classroom instruction where critical thinking is demonstrated.
- Incorporating critical thinking skills in appropriate to practice in classroom;
- Designing course content around themes applicable to variety of situations to encourage active learning activities and critical thinking.
- 2- visual in applying enhance learning and critical thinking skills BY Hector,C . Santiago, OD.phd
- - criyical thinking skills must taught as major subject in every university in Universal .
- 3- Development of critical thinking skills . by Tammy Balapoint-O/ Brien – action research seminar D- Gale cossettee, Professor. They recommandeds that . one the main objective of this study t0 pr0m0te the educational research activities of optometric educators as the apply these tools on their courses the mean time the available evidence supports the implementation of certain activities , constructed a concept, training student in the use of mind mapping and concept mapping techniques initially , they may use them for note-taking during own reading once proficiency is an established, they can be used for note-taking during lectures.
- Ask student to develop a concept map of their knowledge about beginning and of the end of your lesson the beginning map will allow them to explore their

own knowledge base before the lesson , the final map will allow them to explore the expanded knowledge base and how it fits in to their cognitive knowledge structure, you may want to periodically review some of your student maps for accuracy and understanding .

- Ask student to use critical thinking maps tools around special course topics .for example they may use the classification organize to represent anterior and posterior segment diseases the sequencing tool may be used to depict the strategies of certain ophthalmic diseases such as diabetic retrain apathy, the cause effect tool employed to represent the The risk factors and effects of such as glauc0ma .
- 4- critical thinking skills in content of physics test books for secondary school stage in Plestine .

- تطوير المناهج بحيث يتم تعزيز مهارات التفكير الناقد

- عقد دورات تدريبية للمعلمين يتم من خلالها زيادة مهارات التفكير الناقد

تشجيع المشرفين والعاملين على استراتيجيات

Chapter three

Methodology

3-0-Introduction:

The purpose of this objective in this chapter is to evaluate the general methodology of present study ,and the ways in conducting the research designed as evaluation and analytical research. These study was tenor at Sudan University for science & Technology at college of language its aim to evaluating students maturity and conception of critical thinking in their test exam.

3-1-Population:

The population of this study was third year of college languages students (English department) at Sudan University science & Technology in academic year (2015-2016). The total number of the population was 50 the taken comprehension passage as test with its questions and answers in philosophy critical thinking way. This sample was suitable case in this study.

3-2-Sample of the study:

The participant selected for this purpose is consisting of 50 admixture students at college of languages – English language department at Sudan University in (2015-2016). Academic year.

3-3 Instruments:

The test of the passage work was sample test passage with two questions and any question with (4) philosophical answers , the total answers (8) for critical thinking skills is conducted to students in order to read think through, then they are choose the best answer, the purpose of that test is to evaluate the level of students towards this philosophy and how they use their mind with it , then investigate the span of their knowledge in this field,

3-4 Validation technique:

guarantee reliability of the sample passage test the sample taken from (CAAP) Collegiate Assessment of Academic proficiency critical thinking sample test questions booklet) then before distributing to the population consulted to experts, two PHD Doctors who university doctors with long experience in the field., Abdurrahman, D Helary at Sudan University college of language to check the validity of the test and suitable to the level of the population.

3-5 Technique of analysis data:

After data had been collected by answering questions (sample test passage) the analysis were carried out through computer using statistical package for social science (SPSS).

Chapter four

Data analysis

4.0 Introduction:

This chapter present analysis of data which collected by means of test passage , the test passage consist of one passage with two questions and (8) critical answers then just two of them is correct .

Table (1): result of the test passage (question 1):

Valid	Frequency	Percent
Yes	8	16.0%
No	42	84.0%
Total	50	100.0%

The table above shows that only 16% of the students passed in their test for critical thinking while 84% of the students 'failed to use their mind to success in the suitable answer as critical thinker as showed in the following figure and graph :

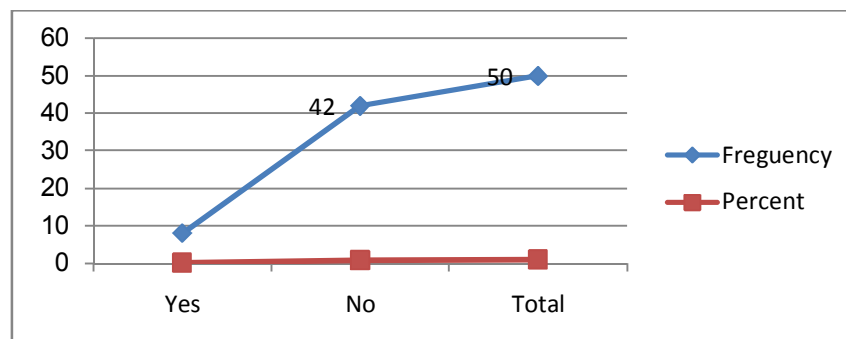
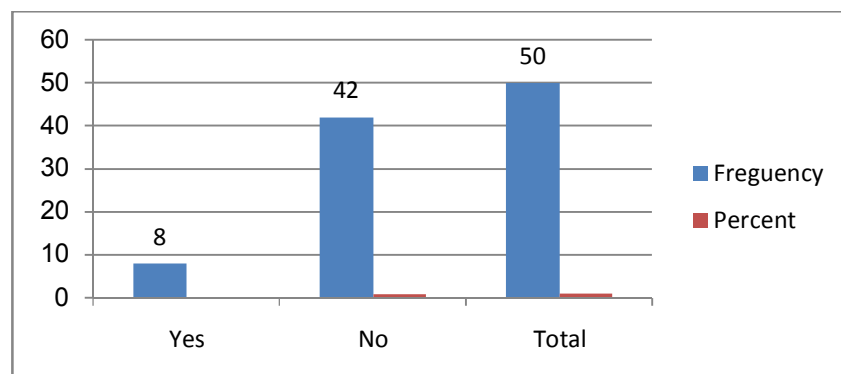
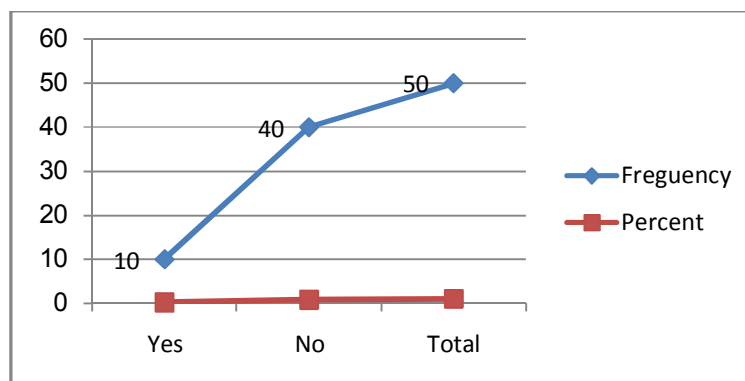
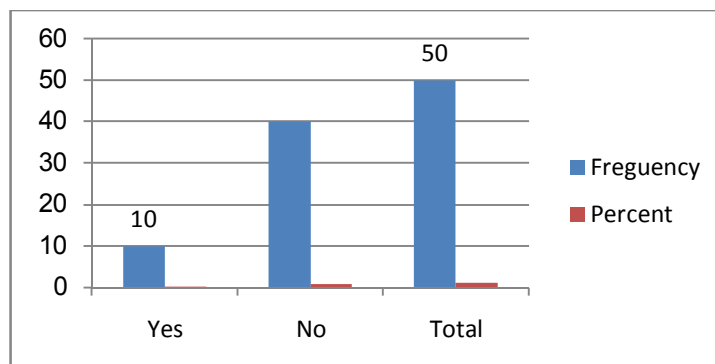


Figure (1): result of the test passage (question 1)

Table (2): result of the test passage (question 2):

Valid	Frequency	Percent
Yes	10	20.0%
No	40	80.0%
Total	50	100.0%

The table above shows that only 20% of the students' succeed in their test for critical thinking while 80% of the students failed to use it .this indicate that the students have low competence in their critical thinking as illustrated in the following figure and graph :



This chapter resented the result of the study in critical thinking skills , the framework in test passage conducted (50) students from Sudan University for

science & technology - college of language grade three to adopted to the result the researcher used(SPSS).

Chapter five

**Summary, conclusion ,recommendation
and further study**

Chapter five

Summary, Conclusion, Recommendations, Further study.

5.0 Summary

Summary of the findings, conclusions, and recommendations improving critical thinking skills in higher education has remained a topic of discussion and focus of varying importance, even in an educational climate that focuses its funding and attention to success on standardized it's a general consensus analyzing faculties that research relating to the development of critical thinking skills is paramount importance in an markets, administrators, and educators are remiss if student leave institutions of university unprepared to approach the myriad problems of the world of work lacking the ability to think critically . this study demonstrates that a clear mandates to teach students to think critically must be adopted and enforced .the purpose of this study is to explore the relationship between the student and this field as measured by passage test to third class student at Sudan university college of language.

The development of critical thinking skills is dependent upon instruction; teachers encourage the development of critical thinking by arrainging the learning environment, demonstrating critical thinking, and implementing techniques that encourage active student engagement. The development of student's critical thinking skills is necessary to prepare individual to perform optimally in an ever-changing world. The result of this study indicates that students within certain academic discipline perform. Weak in area of critical thinking and student needs. Further study in this field.

5.0 Recommendation

Finding from this study include implications for practice by researcher the result of this study indicate training in content delivery accompanied by critical thinking. Mapping the university curriculum in order to adjust course content to reduce the amount of replicated information taught in courses in highly recommended-

- training higher education instructors in active learning strategies that facilitate critical thinking skills.

- course in critical thinking skills in every major.

- teachers of English should be given special and adequate training course in how to teach critical thinking skills.

5.1 Further research:

Further research to reconcile conceptual framework underlying measure of critical thinking within an instruction plan to teach critical thinking skills. It is evident that research needs to be conducted in the field of critical thinking. In order to compete students globally and to prepare for modern work force, so student must develop their skills necessary to think critically and problem solve increasingly innovative ways.

5.2 Conclusion:

This study tried to find out whether argumentative essay strategies develop EFL learners critical thinking skills or not as hypothesized – critical thinking strategies help EFL learners develop,

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References:

Eyer, B(2008) how to teach critical thinking skills in social studies and history, 99(5)190-201 retrived from ://htt://www.social studies.org/

Mendel,L.(2007) critical thinking and reading Journal of Adloscent adult life way,5/(4)300-304retrived from htt//www reading, org.

Paul, Rand Elder,L(2008)critical thinking skills the nuts and bolts of education optometric education 33(3)retived from htt:www.optedorg/ 140/pages index-cfm

Bailin ,S. (2002). Critical thinking and science education .Science and Education ,11(4), 1102-1134

Bailin,S., Case, R., Coombs,J . R., &Daniels,L.B(1999)Conceptualizing critical thinking. Journal of Curriculum studies,31(3),285-302.

BonkC. J., &Smith,G.S.(1998).Alternative instructional strategies for creative and critical thinking in the accounting curriculum. Journal of Accounting Educattion,
16(2),261-293.

Cottrell,S.(2005) critical thinking skills p47 new York, palarave

Ennis R. H (1985).A logical basis for measuring critical thinking skills. Educational Leadership,43(2)44-48.Ennis, R.H.(1989)Critical thinking and subject specificity: Clarification and needed research . Educational Researcher, 18(3), 4-10.

Facione,P.A(1990)Critical thinking: A statement of expert consensus for purposes of educational assessment and instruction / Millbrae, CA: the California Academic Press

Facione, P. A. (2000) the disposition toward critical thinking: its character, measurement, and relation to critical thinking skills. *Informal Logic*,20(1),61-84.

Flavelkl,J.H.(1979). Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry. *AmericanPsycologist*, 34(10),906-911.

Gellin, A.(2003). The effect of undergraduate student involvement on critical thinking : A meta-analysis of the literature 1991-2000.*Journal of College Student Development*, 44(6),746-762.

Halpern, D. F. (2001) assessing the effectiveness of critical thinking instruction . the *Journal of General Education*, 50(4), 270-286.

Ku,K. Y.(2009). Assessing studnts critical thinking performance : Urging for measurement using multi-response format. *Thinking skills and creativity*, 4(2009),70-76.

Lipman, M (1988). Critical thinking _what can it be ? *Educational leadership*, 46(1),38-43.

McPeck,J.E.(1990). Critical thinking and subject specificity: A reply to Ennis. *Educational Researcher*, 19(4),10-12.

Moss,P.A.& Koziol,S. M. (1991). Investigating the validity of a locally developed critical thinking test. *Educational Measurement: Issues and Practice*, 10(3),17_22.

Nelson,C.E.(1994). Critical thinking and collaborative learning. New Directions for Teaching and learning, 1994(59),45-58.

Nickerson, R.S. (1988). On improving thinking through instruction. Review of research Education, 15(1988-1989),3-57.O,Hare ,L.O. &McGuinness,(2009).Measuring critical thinking ,intelligence, and academic performance in psychology undergraduates. The Irish Journal of Psychology,30(3-4),123-131.

Paul, R. w.(1992) Critical thinking: what, why, and how? New Direction for Community College1992(77),3-24.

Paul, R.W., & Elder,L.(2006). Critical thinking : The nature of critical and creative thought.Journal of Developmental Education,30(2),34-35.

Pithers, P. T., & Soden,R. (2000). Critical thinking in education; A review Educational Reseach,42(3),237-249.

Thayer-Bacon,B.J.(2000) Transforming critical thinking; Thinking constructively. newYork, NY: Teachers College Press.

Van Gelder, T. (2005). Teaching critical thinking:some lessons from Cognitive Science. College Teaching, 53(1)41-48.

Willingham, D. T. (2007)Critical thinking : Why is it so hard to teach? American Educator, 8-9.

Appendix

Sample test questions in critical thinking skills:

Test for students

Read the passage and answer the questions below.

Think carefully about each possible answer and choose the best one you are asked to mark all of your answers, notice some questions ask you about what happened in the passage and some ask you what might happen

Sample Passage

Sami and Hani were in the same math class. Their teacher returned the test he had graded. When they saw their grades, sami smiled, but hani looked unhappy. The teacher said that many students had received low grades, and he hoped they would study more for the next test.

Read the each question and mark the best answer on the answer sheet.

Question (1):- based on this passage, what is the most likely to be true?

- A- Sami received a better grade one the test than Hani did.
- B- Sami usually received better grades than Hani in math.
- C- Hani had expected to do better on the test than he did.
- D- 1-lani did not do as well on the test as he would have liked.

Question (2):-

What does the teacher believe?

- A- Studying helps students to do well on math test.
- B- Many students did not study for the test.
- C- None of the student studied enough for the test.
- D- Students cannot do well in math without studying hard.