

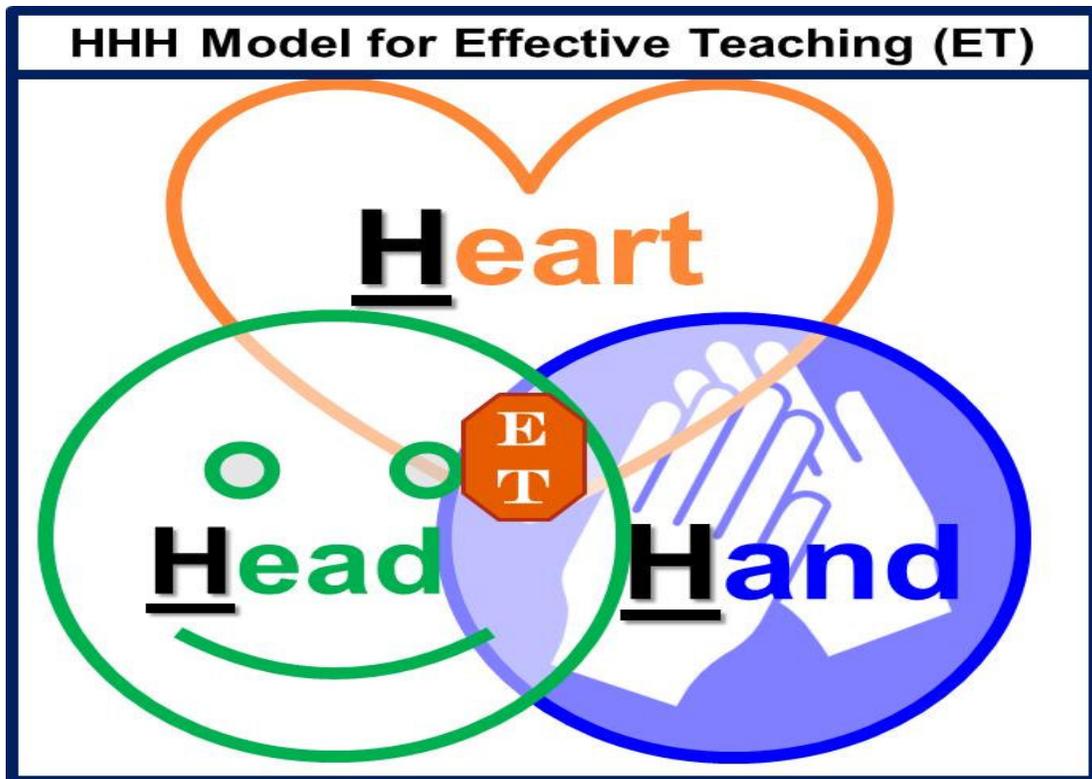
EFFECTIVE TEACHING CERTIFICATE (ETC) PROGRAM FOR FACULTY MEMBERS

I. PROGRAM OVERVIEW

The Effective Teaching Certificate (ETC) program is designed to enhance teaching skills of faculty members and teaching staff creating a culture of continuous improvement in today's complex and competitive higher education environments. The program consists of six interrelated workshops aiming to help participants in how to effectively teach their subjects. The workshops are expected to motivate faculty members and empower them with effective teaching skills through exploring recent scientific studies on teaching, learning, technology, thinking, motivation, and assessment. At the end of each workshop, participants will develop effective teaching materials to improve their teaching portfolio. The workshops are designed based on an holistic educational paradigm which promotes deep learning through the collaborative use of heart, head, and hands. The workshops are good for both new and experienced faculty members of any field. They can be offered both on-site throughout a year or off-site in Istanbul during winter, spring and summer breaks. The certificate program will help educational institutions to improve the quality of their education and meet certain requirements for receiving national and international accreditations.

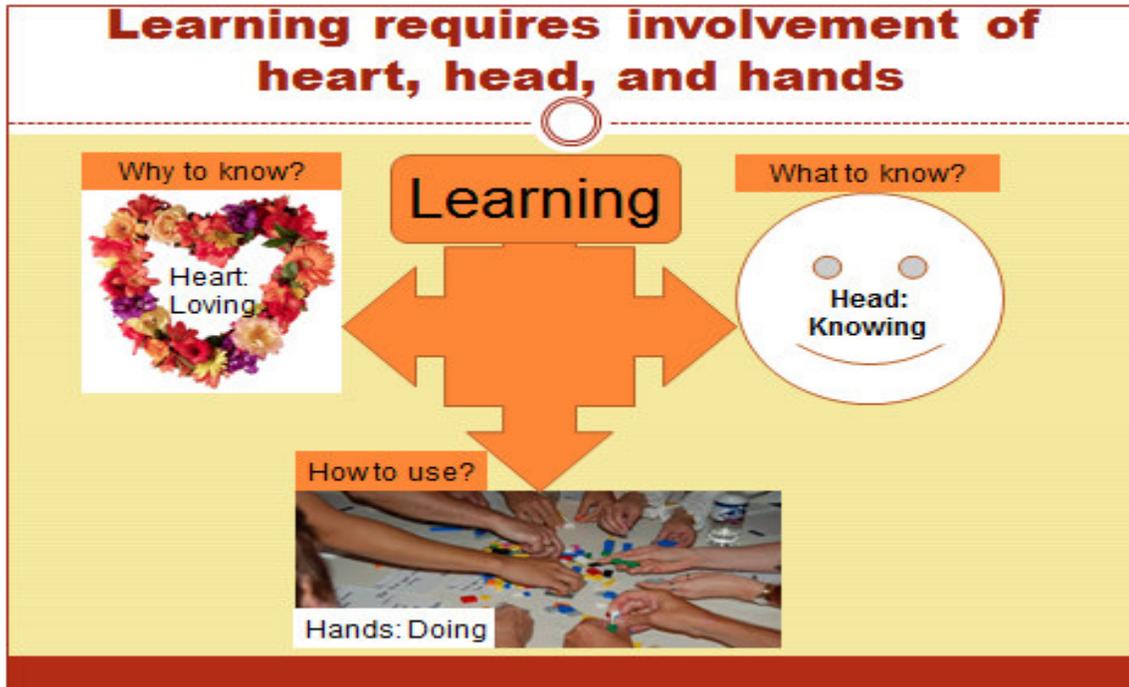
II. THE HHH MODEL FOR EFFECTIVE TEACHING

The workshops are based on Dr.Aydin's HHH (heart, head, and hand) model which argues that effective teaching has to involve both heart, head, and hand. As seen in the chart below, in the HHH model, effective teaching is defined as the overlap of heart, head, and hand.



The heart component is about caring and loving; the head is about knowing how student learn and how we can help me to understand better; and the hand part is how to help students to apply what they learn. In the old paradigm, faculty members perceive their essential to deal with WHAT questions in their teaching. They would do whatever it takes to “just deliver” their topics assuming it is up to students to learn or not.

The HHH model is based on a new paradigm which requires teaching faculty to address WHY, WHAT, and HOW questions in their delivery of content in a way to assure learning. In other words, they should make a strong case to let students know WHY the topics or courses are important to them. They should present topics (WHAT to learn) using diverse teaching methods and tools to assure long-term retention of knowledge. They should also help students to understand HOW they would apply the covered topics to their personal and professional life. The deep learning will occur if learning takes place in heart (WHY question, affective domain), head (WHAT question, cognitive domain), and hands (HOW question, psychomotor domain). As shown below, we will learn and retain knowledge if we think it is worthwhile (heart), if we comprehend it cognitively (head), and if we learn how to apply/use (hands) it in real life:

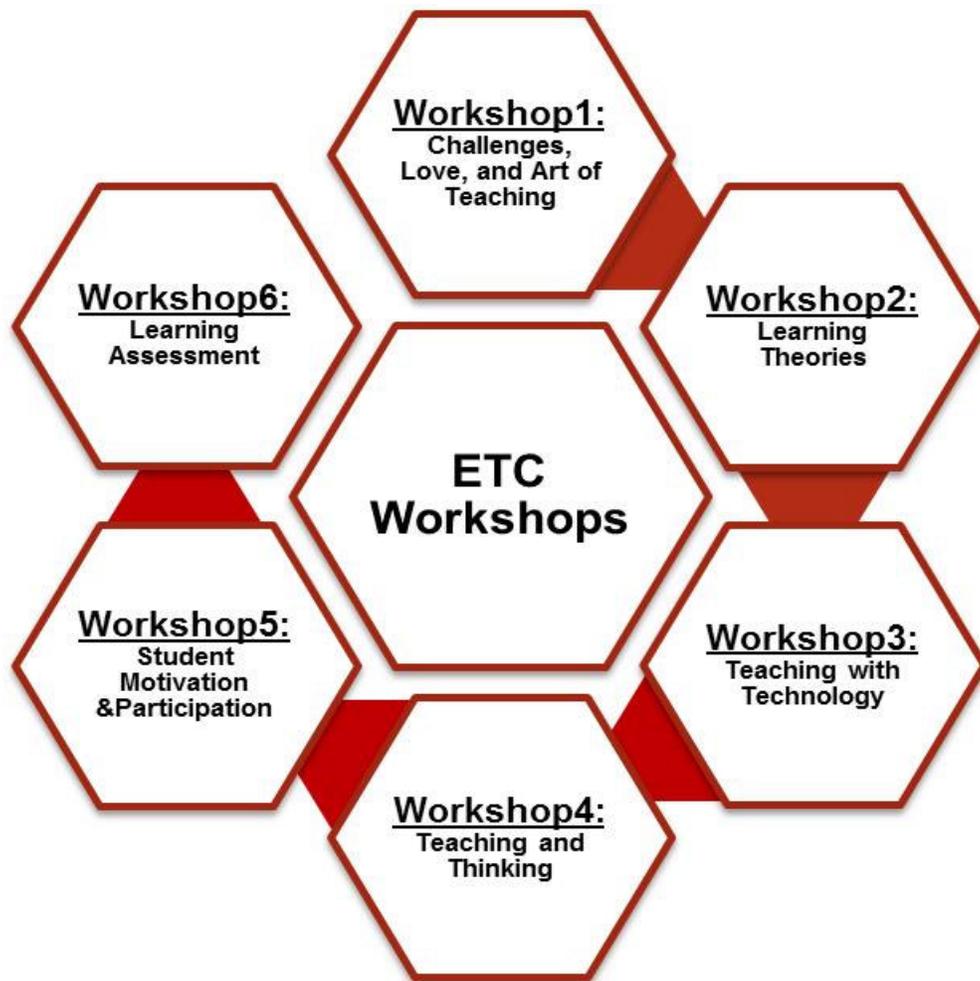


Currently, surface and deep approaches are quite popular in terms of effective learning. Educators are encouraged to pursue deep learning through holistic approach of course design, material, and teaching methods. Surface and deep approaches are defined as follows:

- **Surface approach** involves accepting new information as isolated facts, and leads to short-term retention of the information for use as “cookbook” solutions to problems that are not fully understood.
- **Deep approach** involves analyzing new information, relating this information to prior experiences, and leads to understanding and long-term retention of the new information for use in problem solving in unfamiliar contexts.
- They are **not attributes of individuals**: one person may use both approaches at different times, although she or he may have a preference for one or the other.

Even though major learning theories define deep learning as getting knowledge to long-term memory, the HHH model defines deep learning as getting knowledge to the heart. The ultimate goal of ETC workshops is to promote deep learning through the involvement of heart, head, and hand.

The ETC program will cover basic principles, major theories, and best practice of teaching and learning associated with effective college education to assure deep learning. It will also provide best teaching strategies and effective use of technology through a combination of workshops, discussions, and hands-on activities. Participants will gain knowledge and skills necessary to further improve their teaching portfolio and practice based on student-centered, deep learning strategies. They will explore topics under six modules in the areas of teaching, learning, technology, thinking, motivation, and assessment as shown in the chart below. At the end of each workshop, participants will develop effective teaching materials to improve their teaching portfolio.



III. THE PROGRAM GOALS

ETC program is designed to help faculty members to

- Explore essential theories, principles, and approaches of learning and teaching associated with effective college education (EXPLORING)
- Develop effective student-centered instructional materials in line with the core curricular goals and objectives (DEVELOPING)
- Review and refine teaching portfolio and practice in line with pedagogical studies (REFINING)
- Enhance core teaching skills and knowledge that have immediate application in the classroom (ENHANCING)
- Integrate effective use of instructional technology into teaching portfolio and practice (INTEGRATING)
- Learn how to implement effective teaching methods which foster student learning (IMPLEMENTING)
- Motivate students by understanding and using intrinsic and extrinsic motivation techniques (MOTIVATING)
- Learn techniques and tips to enhance student engagement (ENGAGING)
- Integrate various assessment tools into instruction as assurance of student learning (ASSESSING)
- Interact with colleagues from a variety of colleges and departments (INTERACTING)

IV. EXPECTED LEARNING OUTCOME (PARTICIPATION BENEFITS)

The certificate program is designed to initiate a dialogue of change among teaching faculty. The ultimate goal is to make teaching and learning as great intellectual fun activity which brings intellectual pleasure to both students and professors by changing teaching materials and methods based on the new educational paradigm of 21st century. Upon the completion of the certificate program, participants should be able to:

- Reflect on their teaching portfolio and practice;

- Articulate learning goals and objectives and apply them in course design and syllabus planning;
- Refine syllabus, teaching portfolio, practice, and assessment to encourage deep learning;
- Enhance their teaching philosophy in line with learning theories and best teaching practice;
- Practice how to design a new course from scratch;
- Explore major learning theories and refine their course materials to facilitate deep learning;
- Articulate how to plan and implement teaching strategies in their classes in relation to specific learning goals to assure active learning;
- Recognize a variety of assessment approaches, including formative and summative assessment, and use them effectively to assure deep learning;
- Develop/enhance rubrics for their courses to guide and assess student learning;
- Plan how to use and assess various pedagogical approaches to engage students;
- Acquire theoretical knowledge and practical tips and techniques to motivate their students;
- Practice how to use educational technology such as Blackboard for teaching and assessment;
- Demonstrate the ability to design and deliver an effective PowerPoint presentation;
- Gain confidence in developing and teaching new courses and manage small and big classes;
- Receiving a certificate of teaching excellence indicating their growth in knowledge and skills in regard to student-centered pedagogy, effective assessment, and deep learning approach.

The certificate program will help educational institutions to improve the quality of their education and meet certain requirements for receiving national and international accreditations.

V. WORKSHOP TOPICS, DESCRIPTION, GOALS

Topics	Description	Learning Goals
<p>Teaching in the 21st Century: Challenges and opportunities (Workshop 1)</p>	<p>The workshop will cover challenges and opportunities in higher education in the age of information. It will help participants to deliberate on the importance of belief in student potential.</p> <p>The workshop will also highlight the generational difference and the need for new paradigm in education. It will help to better understand today's kids who are born digital in terms of how they learn, communicate, and socialize in very different ways than any previous generation.</p>	<ul style="list-style-type: none"> ✓ Deliberate on human mind as the most important treasure in the world ✓ Show how to mine the minds through education ✓ Explore the importance of education in the rise of the West vs. the Rest ✓ Compare the Western and Eastern universities: mining minds vs. manipulating minds ✓ Review the search for new educational paradigm in the age of information ✓ Deliberate on MOOC and the future of higher education ✓ Discuss teaching strategies for “digital generation” ✓ Learn challenges and opportunities of teaching in the 21st century
<p>Love of Teaching (Workshop 1)</p>	<p>The workshop will help participants to enhance their love for teaching by emphasizing the importance of educators as raising human being. The workshop is designed based on a holistic approach in education which assumes that learning is the product of three Hs: Heart, Head, and Hand. Heart refers to love, head refers to cognitive dimension, and hand refers to practice. The workshop will make a strong case for teaching as a great profession to love. It will also highlight the importance of love of teaching in the learning process and student success.</p>	<ul style="list-style-type: none"> ✓ Implant and/or enhance the love of teaching ✓ Discuss psychological arguments for the love of teaching ✓ Present pedagogical arguments for the love of teaching ✓ Contemplate on philosophical arguments for the love of teaching ✓ Articulate theological arguments for the love teaching ✓ Discuss the love of teaching as a determinant of professional success ✓ Contemplate on the role of motivated instructors in changing student negative perception of learning

<p>Art of Teaching (Workshop 1)</p>	<p>Are good teachers born or nurtured? The workshop will seek answer to this question through the guidance of “science of teaching”. It will discuss the role of instructor as facilitator for deep learning. It also will cover best practice in effective teaching.</p>	<ul style="list-style-type: none"> ✓ Learn effective teaching tips, tools, and techniques ✓ Demonstrate a sample lecture of effective teaching ✓ Demonstrate how “case method” can be used to achieve learning objectives ✓ Explore best practices associated with effective teaching and learning ✓ Participants will examine Chickering and Gamson's "Seven Principles for Good Practice in Undergraduate Education ✓ Self-evaluate classes based on effective teaching principles ✓ Examine the relationship between teaching methods and knowledge retention rate
<p>Major Learning Theories (Workshop 2)</p>	<ul style="list-style-type: none"> ✓ The workshop will discuss how learning takes place both from theoretical and practical points of view. It will cover several different learning theories and provide hands-on activities on their importance in developing teaching materials for deep learning. 	<ul style="list-style-type: none"> ✓ Practice how to create teaching and assessment materials based on Bloom’s taxonomy ✓ Review learning from behaviorism perspective ✓ Examine cognitive learning theory and its use in developing teaching materials ✓ Discuss social learning theory and social constructivism and their implication for active learning ✓ Explore alternative learning theory from an holistic perspective of human nature ✓ Demonstrate the importance of each learning theories for different learning activities
<p>Deep and surface learning (Workshop 2)</p>	<p>The workshop will define deep and surface learning approaches and review scientific evidence on their effectiveness in teaching. It will also help participants how to develop teaching materials, methods and assessment tools to promote deep learning.</p>	<ul style="list-style-type: none"> ✓ Define deep and surface learning approaches ✓ Explore the criteria for identifying deep and surface approaches ✓ Review best practices for deep learning ✓ Identify effective instructional activities for deep learning

		<ul style="list-style-type: none"> ✓ Demonstrate effective mapping of assignments for deep learning ✓ Practice how to use Bloom's taxonomy for developing teaching materials which encourage deep learning
Teaching with Technology (Workshop 3)	The workshop will provide hands-on activities to build a Blackboard course site by customizing a course menu, applying a unique design, uploading course materials, managing the site. It will cover how to use Blackboard for assessment, participation, and better interaction. It will also show how to use grade center.	<ul style="list-style-type: none"> ✓ Demonstrate how Blackboard can be integrated into syllabus and course design ✓ Familiarize participants with features of Blackboard to enhance learning experience ✓ Show how to create assessment tools through Blackboard ✓ Discuss how to use Blackboard for student interaction and engagement
Teaching and Thinking (Workshop 4)	The workshop will provide a general introduction to critical thinking and its significance in active learning. The workshop will cover basic concepts of critical thinking, creative, and divergent thinking, how to use them to ignite student participation, how to design assignments, activities, and tests that require critical thinking; and how to assess critical thinking skills and abilities which will contribute to deep learning and student success. The workshop will also include hands-on activities to show the application of critical thinking strategies in developing teaching materials.	<ul style="list-style-type: none"> ✓ Learn basic concept of critical, creative, and divergent thinking and how to use them in teaching ✓ Explore effective instructional strategies for critical thinking ✓ Develop teaching materials through the use of critical thinking ✓ Explore assessment tools and questions to encourage critical thinking ✓ Contemplate on critical thinking on deep learning ✓ Examine the relationship between critical thinking and active learning ✓ Contemplate on the importance for Socratic Questioning in active learning

<p>Love of Learning (Workshop 5)</p>	<p>The workshop will be based on the assumption that deep learning starts with heart. It will make a strong case for the love for learning. It will present philosophical and scientific arguments on the pleasure in learning. It will share the story of great scientists who found enormous intellectual pleasure in learning. It will also discuss strategies to motivate students who are not interesting in learning or distorted by many things and make learning as fun activities for them.</p>	<ul style="list-style-type: none"> ✓ Explore the importance of love for learning and long-term retention ✓ Present a holistic education paradigm which gives the great importance to love in learning ✓ Compare intellectual pleasure with sensual and egoistic pleasure ✓ Show scientific evidence for the pleasure in learning ✓ Learn how to motivate students and have them love learning
<p>Student Participation and Team Working (Workshop 5)</p>	<p>Students who actively engage in class activities are more likely to learn and retain the course materials. In this workshop, participants will explore effective strategies that they can use to foster student participation in a variety of teaching activities including lectures, discussions, and lab sessions.</p>	<ul style="list-style-type: none"> ✓ Contemplate on the importance of student participation and team-working ✓ Explore the contrasts between the traditional teacher-centered paradigm (which focuses on what is taught) and a student-centered paradigm (which focuses on what students learn) ✓ Examine the cultural barriers for student participation and team-working ✓ Discuss instructional strategies to encourage student engagement and team-working
<p>Learning Assessment, Developing and Using Rubrics (Workshop 6)</p>	<p>The workshop will introduce rubrics and discuss its importance in assessing and promoting effective teaching. It will discuss various uses of rubrics including in grading exams, evaluating courses, assessing debates, etc.</p> <p>In the hands-on session, participants will be shown how to design and use rubrics to assess the learning outcome of their current classroom, laboratory, or field objectives</p>	<ul style="list-style-type: none"> ✓ Discuss the advantages of using grading rubrics in providing criteria for grading that students will perceive as fair and helpful ✓ Learn principles for effective grading rubrics to measure the learning outcome and promote deep learning ✓ Distinguish between the different types and formats for rubrics ✓ Develop rubric for evaluating and guiding course design ✓ Design an authentic rubric for assignments

VI. THE PROGRAM SCHEDULE

The ETC program will be offered both on-site on agreed time or in Istanbul during the winter, spring, and summer breaks:

1. On-site ECT workshops:

There can be intensive full-day workshop for each topic above or two-day workshop for each topic. All workshops do not have to be conducted at the same time. They could be scheduled for different time of years as suggested below:

Workshops	# of Days and hours	Month
<u>Workshop1:</u> Challenges, Love, and Art of Teaching	<ul style="list-style-type: none">• Two days four hours each or• One day eight hours	October
<u>Workshop2:</u> Learning Theories	<ul style="list-style-type: none">• Two days four hours each or• One day eight hours	November
<u>Workshop3:</u> Teaching with Technology	<ul style="list-style-type: none">• Two days four hours each or• One day eight hours	December
<u>Workshop4:</u> Teaching and Thinking	<ul style="list-style-type: none">• Two days four hours each or• One day eight hours	February
<u>Workshop5:</u> Student Motivation & Participation	<ul style="list-style-type: none">• Two days four hours each or• One day eight hours	March
<u>Workshop6:</u> Learning Assessment	<ul style="list-style-type: none">• Two days four hours each or• One day eight hours	April

2. ECT workshops in Istanbul:

The workshops can be organized for the following academic breaks:

1. Winter Break ETC workshops in Istanbul:

10-days program. Six day ETC workshops and four days cultural tour and recreational activities

2. Spring Break ETC workshops in Istanbul:

8-days program. Six days workshops and two days cultural tour and recreational activities

3. Summer Time ETC Workshops in Istanbul

10-days program. Six day ETC workshops and four days cultural tour and recreational activities

VII. ETC PROGRAM DIRECTOR

Dr.Necati Aydin runs the ETC program. Dr. Aydin currently works as associate professor of economics at Department of Economics, King Saud University. He conducts experimental studies on neuroeconomics using fMRI scanner. Dr. Aydin received his bachelor's degree in Public Finance, master's degree in International Economics. He has

two doctoral degrees, one in economics and the other in education. His first doctoral dissertation was on “*Gender Wage Differential and Under-representation of Women in IT Education Programs and IT Workforce*” while the second one was on “*Economic Growth in Turkey (1968-2005): Solow Growth Accounting and Regression Model*”. He had studied and taught at USA for 12 years. He worked as a researcher at Florida State University and Florida TaxWatch Research Institute for nine years after receiving his first doctoral degree.

Dr. Aydin has conducted research in variety of topics including local and state government budget analysis, economic impact studies, tourism, higher education, virtual education, information technology, and Medicaid. He recently began working on Islamic economics, human nature, subjective well-being, and neureconomics. He has published theoretical paper and empirical papers on these matters. He has presented his ideas at many universities around the world including Harvard University, Cambridge University, and Durham University. In total, Dr. Aydin has completed around forty research projects; authored seven, translated two, and co-authored three books; and published many peer-reviewed articles. He also writes op-ed articles in Zaman, Yeni Safak on social and political issues.

Dr. Aydin moved Saudi Arabia two years ago. During his teaching and research experience in Saudi Arabia, he has noticed major problems in teaching and learning. Rather than complaining, he decided to make positive contribution by changing the established culture of teaching and learning. He developed several interactive presentations along collaborative learning exercises for faculty members through the Deanship of Faculty Development at his university. After receiving positive feedback from participants, he offered similar workshops to faculty members at King Abdulaziz University. He then developed Faculty Teaching Certificate program for Prince Sultan University. The program will be implemented in the academic year 2013-2014 to provide teaching training to faculty members.

Having a doctoral degree in education in addition to many years of teaching experience, Dr. Aydin defines his ultimate goal as making teaching and learning as great intellectual fun activity which brings intellectual pleasure to both students and professors. He thinks that motivated and well-trained faculty members could change student negative perception of learning and ignite a great motivation within them if they change their own perception, tools and techniques based on the new educational paradigm of 21st century.

VIII. DO YOU REALLY NEED ETC TRAINING?

The Muslim world was experiencing its Golden Age when the Western world was in the Dark Ages. Ironically, while the West got out of its darkness and moved toward its Golden Age, the Rest of the world moved to dark ages. This trend reversal began about

500 years ago. The West gave birth of Industrial Revolution and moved to the Industrial Society while the Rest kept living in the Agriculture Society. The West did not stop there progressed toward the Information Society in the second part of Twenty Century while the Rest just woke up its multi-centurial hibernation. According to Harvard historian Niall Ferguson the rise of the West over the Rest could be attributed to the six factors¹: competition, science, the rule of law, consumerism, modern medicine, and the work ethic. He calls them the "killer applications" that allowed the West to leap ahead of the Rest, opening global trade routes, exploiting newly discovered scientific laws, evolving a system of representative government, more than doubling life expectancy, unleashing the Industrial Revolution, and embracing a dynamic work ethic. Indeed, we could summarize all six factors in a single one, mining the minds. In other words, the West gained its power from mining the minds. Indeed, science is built upon understanding that human mind is the most valuable treasure. While scientific works unearth the gold and diamonds of mind such as cars, computers, airplanes, etc., the competitive market system provides a good rewarding mechanism for the products of minds. The legal system assures the freedom to mining the minds. Modern medicine helps to maintain healthy body for healthy minds. Work ethics make people to do their best while mining and exchanging the products of minds. The gap between the West and the Rest has widened for several century. Is it possible to close multi-centurial gap? Is it possible to catch up with the West in science and technology? If yes, how?

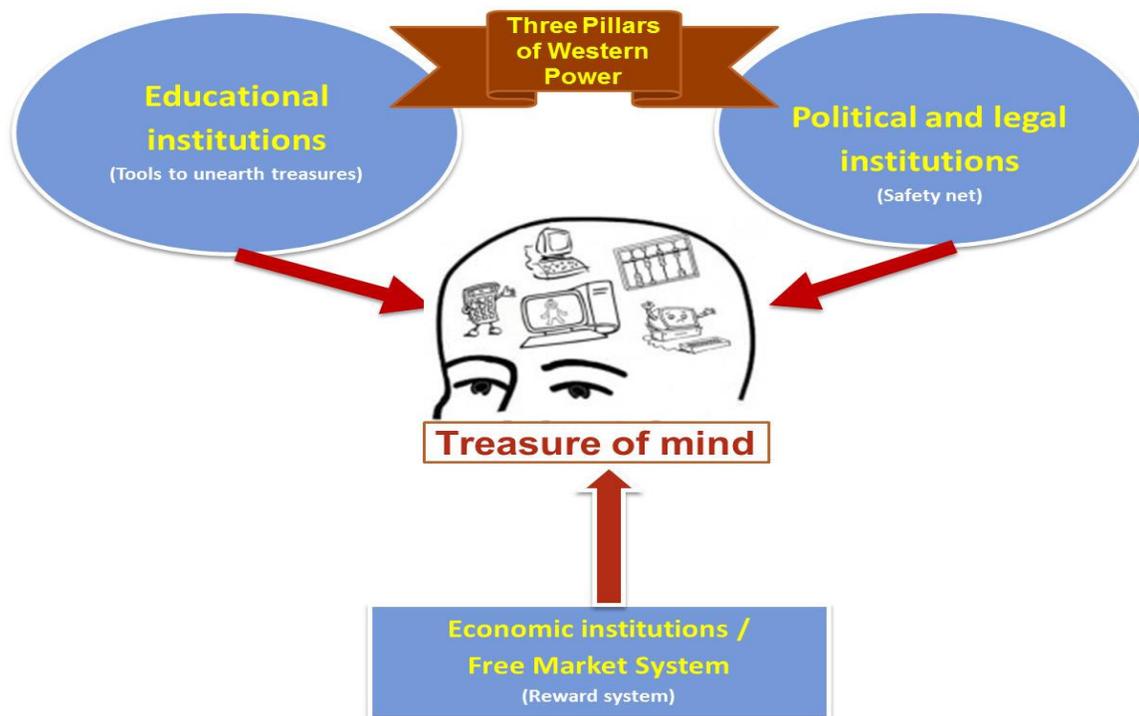
Indeed, it is possible because the gap is reduced to zero for every generation. Death works as perfect equalizers. While death kills old generation with all their knowledge and experience, birth allows new generation to start from the scratch at the perfectly equal level. Indeed, there is no difference between kids born in the West and those born in the Rest. They all are equally ignorant when they began they journey on this planet. They are born knowing nothing but few survival instincts. This means that it takes one generation to close the gap. In other words, if we learned the lessons from the West and raise the generation accordingly, we will be able to close the gap. There is no other way to accomplish this other than education. I mean both formal and informal education. The story of Steve Jobs provides great hope for the Rest². Steve was born from a Syrian father. He was given for adoption to a low income family. Despite many challenges in his life, Steve managed to climb to the top of ladder due to the mind rewarding system in the USA. The market value of his company reached over \$600 billion while the total market value of everything produced in his father's home country, Syria, is about \$60 billion per a year. In other words, the value generated by the works led by single mind ten times

¹ Niall Ferguson (2011): Civilization: The West and the Rest, The Penguin Press, First Edition.

² Dr.Aydin published two Op-Ed articles in Al-Hayat newspaper on this subject. The first one titled as "هل مشاريع «جنونية» في سورية" was published on 12/01/2012 and the second one titled as "سورية بين ما يضاعف أمثال «ستيف جوبز» من سورية" was published on 19/01/2012.

more than that of 22 million people. This means through education and free market system, it is possible for other Steves in the Rest of world to close the gap.

As seen shown in the chart below, the success of the West over the Rest of the world can be attributed to one single factor which is the realization of mind as treasure. Indeed, the West has been unearthing the treasures of mind since the Enlightenment. They have developed three essential institutions to effectively reach those treasures. First, they established good educational institutions to provide tools to individuals in digging their treasure. Second, they developed political and legal institutions to provide security and safety to those who work unearthing the treasure of mind. Third, they supported free market system to provide reward to those who work hard unearthing the treasure.



Unfortunately, education system in the Rest is far from its counterpart in the West. We do not see human minds as the most valuable treasures to be discovered. We see them as empty storage which needs to be filled with our great ideas. As Gibran Khalil says “the teacher who is indeed wise does not bid you to enter the house of his wisdom but rather leads you to the threshold of your mind”. We fill the mind of students with our wisdom. However, as Gibran points to it, the treasure of mind could be opened only by the owner’s deliberate actions. We, educators, invite students to benefit from treasures of our mind while discourage them to dig their own treasures. We treat them like computers and upload our knowledge to their memory, rather than helping them to write their own programs and unearth their own treasures. We load them with much knowledge without

showing how they could apply this knowledge to their personal and professional life. We chain their minds through education rather opening their eyes to different ideas.

Then, what should we do to raise our Steves? We first need to understand that the real power, wealth, and value come from “minds” not mines. We need to value students as we value the treasure of gold and diamond in our yards. We need to set up a good education system to allow those minds flourished. We need to encourage our students to unearth their gold and diamonds and offer them to the global market. Of course, we could not change the Rest overnight. It takes one generation to bring a real change. As professors, we have great responsibility and unique opportunity to raise a golden generation. I argue that the change needs to start with us. We need to come up with come up with a new way of making our courses relevant, current, and appealing to students.

For instance, even though economics is one of the most respected fields among social science scholars, it is one of the least popular among students. Students perceive economics as boring, difficult, dry, irrelevant, and abstract. Even those who like economics, most of them do so not because they value economics as subject, because they see economics as instrument for better employment. Students find problems with both teaching materials and teaching methods. As textbooks are set around highly abstract, formal, and mathematical models, overwhelming majority of instructors of economics tend to prefer traditional lecture method. Indeed, the word “model” implies that the subjects are not “real”. They are just abstraction of reality. Students face difficulty to make connection between abstract model and real life issues. Such perceptions significantly undermine student motivation and learning and set obstacles for them to engage in the subjects presented in the course. Indeed, the data around the world clearly indicate the declining number of student enrollment in economics major. The story is quite similar for many fields. Most of time, students perceive courses boring, difficult, useless etc.

What is the solution? The solution is to change student perception and ignite a great motivation within them by changing our own perception, tools and techniques based on the educational paradigm of 21st century. From an economic perspective, the solution is quite simple: students’ interest in any course is determined by their expected marginal utility (benefit) and marginal cost. If the marginal benefit of a course exceeds its marginal cost, students would like that course; otherwise, they will hate it. According to several studies, students generally do not like economics. This is either because of lower expected benefit and higher expected cost or both. Thus, if we want students to value economics intrinsically, we need to increase the expected marginal utility and lower the marginal cost for students. The former is possible if we could show students that economics bears value for their personal, professional and business life. In other words, rather than presenting topics as abstract models, we need to make them relevant to students’ life. The more they see and comprehend the benefit (usefulness) of economic

concepts, theories, and models, the more they would be willing to pay its due price which is the time they have to dedicate to learn. As people buy expensive things if they expect higher utility, students will be willing to buy in economics if they see its true value. As the rational choice theory suggests, students will prefer economics if they see it will help them maximizing their utility in life. For us as professors (sellers) of economics, if we want to attract more students (customers), we need to reduce its price. This means that we need to find better way to make it easier (cheaper) for students to learn (buy) economics subjects. As instructors, we should not just assure we cover the required content for our subjects, we need no make sure that we have students learned and loved the subjects.