THE EGG CONCEPT TRAINING (ECT)

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by

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Keywords: Learner-centered approach, Learner's aptitude, Learner's diversity, The Egg Concept Training, Training Method and Assessment.

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ABSTRACT

Purpose - The main purpose of this study is to examine the extent to which the ECT (Egg Concept Training) has an impact on the trainer's approach, the learner's satisfaction and recommendation for the trainer. The research has been conducted on an audience from different environments namely a school, a corporation an association and also an eLearning training session.

Design/methodology/approach - Qualitative analysis approach has been applied to identify the trainers and audience perspectives in relation the ten principles of the ECT to deliver an effective learning environment and a pleasant learning experience.

Practical implications - This research demonstrates the impact of adopting the ECT on the improvement of the learning environment where the trainers are effective in delivering their training and the learners are experiencing a pleasant learning experience. Drawing on the findings and analyses, the research should provide trainers and educators with insights on using ten principles to improve their effectiveness and seek recommendations for continuous business in the future.

Originality/value - The research should be extremely valuable to both experienced and less experienced trainers and educator to consider a new approach while sharing knowledge and skills. The trademark of the ECT is adopting a practical learner-centered approach that includes a set of activities to improve the interaction with the learner while integrating their aptitudes and divers personal and professional experiences.

Keywords: Learner-centered approach, Learner's aptitude, Learner's diversity, The Egg Concept Training, Training Method and Assessment.

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ABBREVIATIONS

AC	The ECT Principle of (Acquisition / Channel)
AP	The ECT Principle for the evaluation of the effectiveness of the materials and methods used during training
AU	The ECT Principle of (Aptitude / Utilize)
CC	The ECT Principle of (Cognition / Challenge)
DI	The ECT Principle of (Diversity / Include)
ECA	The EGG Concept Assessment
ECAR	The EGG Concept Assessment Results and Profiles
ECLF	The EGG Concept Learner Feedback Form
ECO	The Egg Concept Outcome
ECP	Egg Concept Principles
ECT	The EGG Concept Training
II	The ECT Principle of (Interest / Interact)
IP	Instructor Perspective
LoL	Leaders of Learning
MBTI	Myers-Briggs Type Indicator
MOOK	Massive Open Online Course
MT	The ECT Principle of (Maturity / Trigger)
OM	The ECT Principle of (Opportunity / Motivate)
PostECT	The assessment post the EGG Concept Training
PreECT	The assessment prior to the EGG Concept Training
Prosumer	Producer and at the same time consumer
RE	The ECT Principle for the measuring the recommendation of the trainer
SDL	Self-determined Learning
SEL	Social Emotional Learning
SMART	Acronym for; Specific, Measurable, Achievable, Realistic, and Timely
SP	Student Perspective
ST	The ECT Principle for measuring the satisfaction with the training session
TSE	Teacher Sense of Efficacy
VARK	Visual, Aural, Read/write, and Kinesthetic

CHAPTER 1

INTRODUCTION

This introductory chapter comprises of five sections covering the background of the research; presenting the research questions; providing the justification and significance of the research; sharing a brief description of the methodology and suggesting an outline for the rest of the thesis.

1.1 Background

The state of learning is going through major transformation because of environmental and technological forces that go beyond the boundaries of space and time. The production, consumption and use of knowledge are impacted by the global rapid change and transformation that is marking every aspect of a learner's life. Learners today are presented with a plethora of data and information and are challenged to live in an information jungle where anyone, anywhere and anytime is a *prosumer* of content and is able to share it with so much ease. Today's trainers or educators are not the owners of knowledge and cannot claim to be the source of it, but facilitators who are challenged by the constant changes and trends of learning. Learning institutions must ensure to keep up with the rapid change but at the same time provide the right environment for effective and satisfying learning experiences. This synopsis of the changes in learning trends is a critical conceptual backdrop for this research study's aims and objectives.

1.2 Research Questions & Aims

This research is carried out with the assumption that the trainer's approach in transferring knowledge affects the experience of the learner, which also impacts the satisfaction and recommendation for the trainer.

The aim of this research is to collect data from learners and trainers in order to examine the extent to which the adoption of a new training concept positively influences the performance of the trainers and enhances the learning experience.

Consequently, the objectives are as follows:

(1) Analyze relevant literature surrounding the effectiveness of schools, classrooms and educators.

(2) Review important aspects of learning in terms of theories, frameworks, domains, styles and types of learning

(3) Verify the extent to which the ECT (Egg Concept Training) has an impact on the trainer's approach, the learner's satisfaction and recommendation for the trainer.

(4) Examine the extent to which the ECT (Egg Concept Training) encompasses a range of theories and frameworks associated with an improved learning experience.

Based on the above, the study is guided by the following research questions:

(1) To what extent does the adoption of the ECT (Egg Concept Training) influence the learner's satisfaction of the learning experience and the approach used as well as recommendation for the trainer?

(2) To what extent does the ECT (Egg Concept Training) encompasses a range of theories and frameworks associated with an improved learning experience?

(3) What is the applicability and feasibility of the ECT (Egg Concept Training) on a variety of settings, environments and contexts?

1.3 Justification for the research

There are a number of elements and reasons why this research has been conducted, some of it is academic in nature and others are personal and career related based on field experience and reflections of what goes on in the classroom or training facilities.

Childhood

My childhood experience with learning was anything but fun and painful at times; I always had a problem relating to what I was learning and I rarely enjoyed education. My father had to lie to my uncles and aunts about my grades because they were average in comparison to my cousins. However, my thirst for learning has never been satisfied and I engaged in self-directed learning. Today, I want to find out some effective ways to make learning interesting and fun. Especially, that I always believed I had potential that was never uncovered.

Experience

My practice of teaching and training for the last ten years has influenced the way I see the learning environment and current conditions and challenges. Learners are not able to pay attention for too long because they are bored and information is available at their fingertips. Educators are confronted with competing demands; to provide valuable information and share career related education. Trainers, however, are supposed to bring in immediate results at the lowest possible cost.

Topic

Extensive work has been produced to investigate contexts for the assessment of student learning. A significant contribution made by Forester (2009) points out the distinction between assessment purposes, in particular between summative assessments in other words assessments of learning which merely concern reporting students' levels of achievement in comparison to formative assessments which tends to make use of achievement data to improve teaching and learning. The latter is labeled as "assessment for learning" which this research belongs to. Therefore, the perspectives of both the trainer or educator and the learner are considered in a suggested new training concept where the learner is motivated to learn and the trainer or educator is effective in doing so.

Research

This research comes as a continuation for the various investigations of leadership in the classroom which could be classified in terms of three areas of interest: first, those that sought to survey the effect of transformational leadership on student perceptions of the learning experience (Pounder, 2008) and the investigation of instructors' leadership in comparison with the students' behavior and learning (Bolkan & Goodboy, 2009). The second typology of research focused on classroom management and the quality of the classroom (Moir et al, 1999) and classroom climate (Fraser et al, 1987). The last typology of research sought to examine instructor's influence on academic achievement, student motivation and their relative impact on student learning (Muijs & Reynolds, 2002).

Value & Contribution

The value of this research lies in the fact that it is performed within diverse environments, which aims to target various components addressed within the framework of the above-mentioned typologies. The focus of the ECT is to develop the trainer's approach and enhance the learning experience where the trainer adopts a learner-centered attitude that takes into perspective the aptitude, interest and motivation of the learner at the core of the learning experience.

1.4 Outline of the Methodology

Several criteria were used in the process of selecting the literature. First, a comprehensive survey was done using computer searches, which resulted on a pre-selection of around 600 academic articles on the topics of school leadership, instructor classroom leadership, classroom climate as well as the leadership of learning, and leading theories and frameworks.

Over one hundred academic sources have been utilized, including journal articles most of which from academic journals such as; Educational Administration Quarterly, Educational Leadership, Journal of Educational Administration, School Effectiveness and School Improvement, and School Leadership and Management. The majority of publications sought, were targeted towards theory application into practice dating within the last decade, except for a few articles and book chapters, which included fundamental theory pertinent to the subject.

The review of the literature focused on research outcomes and findings as well the methodological reviews concentrated on research methods. The goal behind the review aimed to identify central issues and the coverage of resources focused on central or pivotal articles in the field, which were organized in accordance with concepts.

The instrument developed for data collection sought to measure the perspective of learners and trainers alike in relation to the ten principles suggested by the ECT which include the learner's maturity, interest, aptitude, opportunity, acquisition, diversity, cognition their satisfaction with the training session, their evaluation of the approach of the trainer in terms of the material and methods used during training as well as the learner's recommendation of the trainer. The trainer's perspective is measured in relation to how they portray or value the previously mentioned principles.

1.5 Outline of the rest of the thesis

The remaining sections of this paper will discuss the literature pertinent to the models of educational leadership such as the Instructional, Transformational and Distributed leadership. Classroom leadership will be explored from a social lenses and instructor leadership will be addressed in how it impacts the learning experience. In addition, a range of learning theories and frameworks will be explored to set the stage for essential aspects of a pleasant learning experience.

The third chapter introduces the Egg Concept Training (ECT) and provides details for its design, utility, the various pillars for its success as well as how the ECT could be measured and examples for training the trainer to use the ECT and also its application to various environments.

The Methodology chapter discusses the reasons behind choosing the qualitative research approach, which will take a form of a survey and a questionnaire seeking to derive responses on specific dimensions and variables uncovering the trainer's performance in relation to ten principles of the ECT. Moreover, the chapter will include the choice for the sample population as

well as the sampling criteria. In addition, the choice for the instruments employed and procedure for carrying out the research will be addressed in more details.

The fifth chapter enumerates and examines the findings from the questionnaire and survey. Consequently, leading up to the final chapter, which re-examines the research questions in accordance with the findings and the pertinent literature.

CHAPTER 2

LITERATURE REVIEW

The review of the literature is organized into two major categories **leadership** and **learning**. The first part of the review focuses on research outcomes and findings revolved around three central areas of educational leadership. The literature pertinent to school leadership is explored in terms of the development that took place during the last four decades. Furthermore, the review takes a closer look into the studies that dealt with the effects of transformational-transactional leadership in the university classroom. Moreover, the role of the instructor is discussed in terms of their classroom leadership impacting classroom social climate and student affective performance where the classroom is considered as a social organization. In addition, another section engages in a discussion of instructor leadership and uncovers important characteristics for effective teaching according to various studies, drawing on the importance of the interpersonal skills of the instructor, which puts the transformational leadership construct at the core of effective teaching. The final section of the first part of the review explores an example of leadership of learning which seeks to identify some theories of learning and explore leadership in in different learning environments and the extent to which organization's structure reflects the theories of learning within the physical and digital design of learning.

The second part of the review focuses on learning and seeks to explore definitions of learning and the criteria associated with learning. Furthermore, a discussion of how knowledge is acquired is invoked to draw on the fundamental differences between two major schools of thought in Epistemology. The review extends its scope to learning theories and the psychology of learning and provides a summary of essential viewpoints of the most common learning theories. Another perspective is also being considered which concern learning frameworks and the prominent typologies associated with it. Furthermore, learning domains are also raised to the discussion to explore the cognitive, affective, and psychomotor aspects of learning outcomes. In addition, learning styles are explored as well; to highlight the major differences in the way learners acquire knowledge and demonstrate a predisposition to one of the major typologies of learning styles and stages explored. The final section of the review reviews some assessment types to appreciate the contribution of assessments to the overall learning experience.

2.1 School Leadership

The development of school leadership has seen remarkable change in terms of focus and approach and is still going through development. The sections that follow will discuss important stages of school leadership and conclude with comparative remarks of what distinguishes each school of thought.

Instructional Leadership

The emergence of the instructional leadership model took place as a cause of a widespread concern for effective schools (Leithwood & Montgomery, 1982) and effective principal leadership (Hallinger, 1992). School principles, however, received extensive interest from scholars to investigate their roles of implementing change for the purpose of school improvement (Leithwood & Montgomery, 1982) and the extent to which they have been successful (Hallinger, 2003). Hence, decades of academic debates argued on how principles differ in approach to school leadership and the challenge to agree on a "uniform" model of principle leadership given varying contexts and circumstances (Hallinger & Heck 1996).

In much recent literature, Jones (2010) suggested a working definition for instructional leadership as inclusive of common vision development, relationship building, empowerment seeking, feedback considering for the purpose of improving, innovating and sharing best practices. His approach sought to develop the model around context, target, and practices earlier agreed on by Brundrett et al. (2006, pp. 90) as a 'strategic necessity' for principal school leadership.

Critics of the instructional leadership model addressed several issues in terms of the extent of its applicability (Hallinger, 2003) and scope of practicality given the human and institutional resources, the school size and social economical conditions of the students and finally the focus on the single role of principles to drive change (Cuban, 1988).

Transformational leadership

Transformational leadership in higher education came as a result of the demand for reforms in educational systems around the world and school restructuring (Leithwood, 1992, 1994). The new model needed to be flatter, more 'problem than task-focused' and support capacity development (Leithwood, 1992) and improvement of teaching and learning processes (Hallinger, 2003).

The focus shifted from a managerial approach of control and supervision of curriculum and instruction (Hallinger, 2003) to transformational leadership aspects of schools (Leithwood et al., 2000b), most of which is influenced by the work of Bass (1985). For example, various research into effective schools has been conducted using the transformational leadership model (Hallinger & Heck, 1996a, 1996b); some studies investigated the effects of transformational leadership on school and classroom conditions (Leithwood & Jantzi, 1999b) while others committed their research on teachers' perceptions vis-a-vis school conditions and their commitment to change (Day et al., 2001).

The limitations of the transformational model could be seen in how challenging it is to study the effects of 'single' leaders on schools (Hallinger & Heck, 1996a, 1996b), as well as the fact that measures of interpreting various variables such as levels of instructor engagement and their perceptions of change is rather difficult, adding to that the relative complexity of the cultural context of education in either regional or global settings (Leithwood & Jantzi, 1999a, 2000a).

Distributed leadership

Some scholars attribute the rise of a third educational leadership model to the global socioeconomic changes that took place at the end of the 90's (Hallinger, 2001:61), hence adding up to the complexity of school leaders' job of dealing with the rapid pace of change and meeting 'instructional and achievement' targets. Therefore, the concern shifted from 'individual leaders' to 'distributed leadership' (Spillane et al., 2004). This collaborative process suggested a democratic approach to school leadership based on sharing accountability and responsibility among principals and teachers alike (Harris & Muijs, 2005), where leadership is shared across the organization with distributed influence (Ogawa & Bossert, 1995) and egalitarian roles of leaders and followers (Spillane et al., 2004).

A range of characteristics have been associated to the distributed or shared leadership in terms of the relationships taking place within school leadership based on empowerment and participative communication for the purpose of improving performance and establishing clear priorities (Robinson, 2006). Consequently, we can see how the distributed leadership model came as a response to the need for a more flexible and responsive approach to school leadership based on collaboration to work with the context, specify targets, and improve practices.

Commentary

Reflecting back on the development of school leadership (Table 1), a number of observations are worth highlighting; the instructional and transformational models seem to be centered on the role of school leaders and teachers to 'improve education outcomes' (Leithwood & Jantzi, 1999b), the distributed leadership framed it into distributed influence (Spillane et al., 2004). These 'improvement-oriented' activities involved school orientation, climate and effectiveness to target change through an approach that emphasized leadership (Hallinger, 2003).

	Instructional	*Transformational*	*Distributed*
Context	▪ Effective schools ▪ Effective principals	▪ Reforms ▪ Restructuring	▪ Global changes ▪ Distributed influence
Focus	▪ Task oriented ▪ Control & supervision ▪ Change implementation ▪ School Improvement	▪ Problem oriented ▪ Support & capacity development ▪ Commitment to change ▪ Teaching & Learning Improvement	▪ Distributed leadership ▪ Shared accountability & responsibility ▪ Flexibility and Responsiveness ▪ Performance Improvement ▪ Clear priorities
Critics	▪ Applicability ▪ Scope of practicality ▪ Single driver for change	▪ Single Leader ▪ Follower Engagement ▪ Context Challenges	▪ Global Applicability ▪ Complex environmental challenges
Adapted from: *Hallinger, P. (2003). School leadership development: Global challenges and opportunities. In P. Hallinger (Ed.), Reshaping the landscape of school leadership development: A global perspective. Lisse, Netherlands: Swets & Zeitlinger.*			

Table 1 – The Development of School Leadership

The instructional leadership clearly targeted 'first-order' variables, which concern curriculum coordination and classroom instructions (Cuban, 1984, 1988), or teacher supervision (Hallinger & Heck, 1996a), Transformational leadership targeted 'second-order' variables to improve teacher engagement and performance improvement (Barth, 1990). The difference between the first and second order variables lies in the degree of control and coordination utilized by the school leader or principle. Distributed leadership focused on sharing accountability and responsibility among principals and teachers alike (Harris & Muijs, 2005).

Another notable difference has to do with the emphasis on direction, coordination and control, which marked the instructional leadership versus the application of empowerment strategies (Day et al., 2001) in terms of the transformational model. In contrast, distributed leadership

offered a more flexible and responsive approach to school leadership. The instructional leadership could be compared to transactional leadership in this context (Bass, 1985).

A distinctive aspect of instructional leadership is the extent to which leadership revolves around individual expertise, power and authority. In contrast, transformational school leadership came as an alternative for a much more shared or distributed leadership (Hallinger, 2003), this is what a number of scholars refer to as ‘bottom-up’ participation versus ‘top-down’ leadership (Day et al., 2001). Distributed leadership focused on improving performance and establishing clear priorities (Robinson, 2006).

At this stage we can see how a growing body of research has reached a consensus that transformational leadership is an appealing approach to leadership for learning. Consequently, Mintz (2012) put forward a description of transformational teaching which surpasses the task of transmitting content and skills to guiding students to reach a level of independence, self-direction, self-motivation and developing critical skills. Hargreaves and Fullan (1999, p. 21) add that teaching is an emotional practice that includes forming bonds and relationships with students.

2.2 Classroom Leadership

In an attempt to draw a critical picture of the various components of classroom leadership, the following paragraphs will address reasons why classroom leadership is important as well as state some dimensions of it. Furthermore, instructor influence is explored in ways where skills help influence student's perception of the classroom climate through facilitation and consideration of physical and intellectual diversity. The whole concept is being looked at from a social organization perspective of the classroom.

Social & Cultural Perspective

The basis for relating classroom leadership to classroom social climate was based on the work of Moos and Tricket (1974) who associated a number of factors important to classroom climate such as involvement, affiliation, teacher support, task orientation, competition, order and organization, rule clarity, teacher control and innovation. In this regard, a range of scholars posited that classrooms qualify for a consideration similar to that given to a social organization where instructors are seen as leaders and students as followers; Cheng (1994), on his part considered Maehr's (1990) proposition that:

> *"A classroom including a group of students and their class teacher is in itself a small social organization, in which the class teacher is often assumed to be the leader and students the followers"* (Maehr, 1990 as cited in Cheng, 1994, pp. 54)

Walumbwa and Ojode (2000) also posited that classrooms share organizational characteristics, which could be studied similar to social organizations in terms of transformational leadership outcomes on students, which make reference to organizational studies of leader-follower relationship conducted by Kouzes and Posner (2003).

Looking at ways in which instructors could create positive classroom culture, leads us to discuss the fact that in today's classroom students tend to come from cultural, racial, ethnic, and class differences. Instructors in this regard are to be aware of cultural biases and be aware not to misinterpret the behaviors of their culturally diverse student population. According to Weinstein, et al. (2003) this would be possible when instructors familiarize themselves with the cultures and communities of their students and learn to avoid biases and discrimination during interaction. Therefore, it is suggested through research in the field that instructors learn ways to avoid cultural gaps that might affect their dealings with students, this is what scholars such as Gay (2000) labels 'culturally responsive teaching' and Ladson-Billings (2001) refer to as 'culturally relevant pedagogy'. This is possible through strategies of practicing culturally responsive classroom management following the steps suggested by Weinstein, et al. (2003) which include tasks such as (a) creating a physical setting that supports academic and social goals, (b) establishing expectations for behavior, (c) communicating with students in culturally consistent ways, (d) developing a caring classroom environment, (e) working with families, and (f) using appropriate interventions to assist students with behavior problems.

Classroom Instructor Leadership & Influence

For over a decade, the majority of the literature about instructor leadership has been focused on the quality of the classroom being judgmental (Moir et al, 1999), some scholars developed instruments to describe the climate of the classroom in terms of dimensions such as involvement, affiliation, teacher support, task orientation, competition, order and organization, rule clarity, teacher control, and innovation (Fraser et al, 1987). However, a recent trend of research shifted interest to studying the effects of transformational-transactional leadership in the university classroom (Walumbwa & Ojode, 2000). In fact, some demonstrated the positive relationship

between transformational classroom leadership and positive student outcomes and effective instructor leadership including students' satisfaction (Pounder, 2004).

Classroom instructor leadership has been examined beyond the traditional role, Dozier (2002) investigated ways to facilitate student learning and to understand instructors' characteristics whilst Krisko (2001) suggested a profile for effective instructors in terms of interpersonal and intrapersonal skills as well as a 'sense of self' and 'habits of mind.'

The Hong Kong study by Cheng (1994) included dimensions important to classroom climate including; self-concept, attitude to peers, attitude to the school, attitude to teachers and self-efficacy of learning, all of which proved to be positively related to instructor classroom leadership impacting classroom social climate and student affective performance. Two years later, Rickards and Fisher (1996) argued that teachers' classroom leadership such as being helpful and friendly positively influenced the students' attitude towards learning and achievement in class. Similarly, the research by the Hay McBer (2000) concluded that classroom climate is among the factors, which significantly influenced students' progress along with instructors teaching skills and professional characteristics. Consequently, findings suggested the causal relationship of the classroom leadership on positive student outcome and classroom climate.

From here we can consider the proposition of (TSE) Teacher Sense of Efficacy suggest by Trae (2012) where classroom instructor leadership is considering service-learning; a concept that Bringle and Hatcher (1995, pp. 112) defined as a:

"course-based, credit-bearing educational experience"

The latter is aimed at developing students to grasp course content, appreciate the discipline, enhance their sense of civic responsibility and therefore meet community needs. However, none of the previous skills would be complete without a careful consideration of what Norris (2003) argues to be Social Emotional Learning (SEL) which is designed to create, deal and recognize attitudes, emotions and behaviors that aim to foster a healthy social environment, individual's well being and academic achievement.

Norris (2003, pp. 314) defines (SEL) as:

> *"...an approach that teaches individuals to recognize, regulate, and express the social and emotional aspects of their lives so they can successfully manage life tasks."*

Effective Classrooms

Being effective in creating a classroom climate as part of classroom management has been argued by Fitzgerald and Bass (1997) who demonstrated that to improve the learning process, instructors are to be aware of the necessity to develop their skills in terms of creating a positive classroom climate. Furthermore, Reynolds et al. (2000) confirm that signs of effective classrooms include both academic and social achievements of students. This leads to underpin the critical role of the instructor to create, maintain and nurture a classroom environment that combines the acquisition of social, emotional and intellectual capacity of students (Wang et al., 1994).

According to Wong & Wong (1998, pp. 84) classroom management refers to:

> *"to all of the things that a teacher does to organize students, space, time, and materials so that instruction in content and student learning can take place."*

Therefore, we can conclude that instructors are to rely on their leadership style in the classroom to enhance the student's experience in the classroom. Moreover, instructors are to reflect on their

experience as well as that of others in the field to improve understanding of classroom management. For example, some instructors rely on icebreakers the first session of the class to familiarize students with the new environment and get acquainted with their peers; this in part targets the learners' social and cognitive skills to work in groups and build personal relationships (Good & Brophy, 1997).

Shared Classroom Leadership

While the previous sections demonstrated the importance of the quality of the classroom climate and the extent to which it relies on effective instructor' leadership skills, it seems coherent to draw on the points of parity between classroom leadership and the distributed school leadership model addressed at the beginning.

First, in terms of the concern for 'distributed leadership' as outlined by Spillane et al., (2004) where accountability and responsibility is shared from the instructor's side as well (Harris & Muijs, 2005) and influence is demonstrated throughout the school starting from the classroom (Ogawa & Bossert, 1995).

Second, the instructor assumes an egalitarian leadership role where she/he demonstrates leadership roles within the classroom (Spillane et al., 2004), the latter is based on empowerment inspired from the leadership of the school (Robinson, 2006).

Finally, we can see how classroom leadership is representative of the distributed leadership model, which aims to improve performance (Robinson, 2006) through flexible and responsive approach starting from the classroom.

2.3 Instructor Leadership

The final section of the first part of the review is going to attempt to discuss what is perceived as 'good teaching' relying on previous research that sought to consider the judgments and students' opinion of their instructors. Moreover, this section will also discuss characteristics and common attributes embodied by influential instructors as well as dimensions of excellent teaching. Furthermore, a discussion is set forward to shed light to leadership aspects of the instructor's job either within the classroom and school environment.

Perceptions of instructors

The challenging aspect of the instructor's job lies in the fact that what is considered 'good teaching' varies from one student to another and amongst different instructors themselves (Rowe, 2003).

A study completed by Chermesh (1977) pointed out that being perceived as a good instructor is a process based on the instructor/student relationships developed over the course of the school term, rather than a matter of the initial impressions during the first day of the class. The latter observation leads us to think that students' descriptions of good teaching might be insightful to help understand aspects of teaching as being regarded by learners. After all, research has demonstrated that students tend to have a say on characteristics of 'good' and 'bad' instructors (Johnston, 1990). As for instructors, it seems that there might be a chance to make up for the first bad impressions and improve future performance.

On the same subject, Slotnnick et al. (1989) conducted a study to investigate the relationship between the perceived attributes of student's best and least liked instructors. The study revealed that students favored instructors who were; 'organized and prepared, knowledgeable, able to communicate, care about students, enthusiastic about the subject, and challenging and demanding.' On the other token, students were least favorable of instructors who portrayed the following attributes: 'uninteresting, unprepared, unclear, bad attitude, disorganized'.

Beyond the interest of finding out about 'good' instructors, a study conducted by Ruddell (1995) aimed to find out common attributes of influential instructors based on what some students identified to be influential attributes of their former instructors. Common characteristics embodied by influential instructors dealt with effective teaching strategies which relied on excitement and motivation of students towards the subject matter as well as personalizing topics to student's needs and portraying personal care towards student's personal and learning concerns.

As per the perspective of the instructors who were identified as influential by their former students, the characteristics they believed were important to their job included intellectual excitement through emphasizing on relevant material to students as well as showing warmth, care, and sensitivity to student's needs (Ruddell, 1995).

An 'Investigation into Excellent Tertiary teaching practices' with the purpose of enhancing the practice of novice instructors gave birth to five dimensions including; skills, interpersonal relationships, research/teaching nexus, personality and subject knowledge. The main assumption was that '*good teaching is not innate it can be learned*' (Kane et al., 2004, pp. 306).

Teaching & leadership

In contrast to the argument whether or not teachers are actually 'leaders' (Riggio, 2010) some views postulate that the job of teaching has everything to do with leadership (Harris, 2003). Pounder (2006, pp. 528) on his part claimed that it is without a doubt that

> "teaching and leadership are inexorably intertwined".

On the same topic, a number of scholars consider instructors as leaders for their potential ability to influence students (Katzenmeyer & Moller, 1996) and have a deliberate impact on school improvement (Andrews & Crowther, 2002) either through formal or informal activities and operate within a limited or broader scope (Harris & Muijs, 2005). In fact, Leithwood and Riehl (2005) postulate that instructor leadership improves student learning both within the classroom or throughout the entire school, helps to promote achievement, and utilizes transformational tools of intellectual stimulation and individual support.

The application of organizational leadership theories in the classroom has been adopted by a number of studies in the field, most notably that of Pounder (2006, 2008) which have been able to demonstrate the link between the display of transformational leadership by instructors in the classroom to positively influence students' behaviors and perceptions of the classroom climate.

If we consider the work of Pounder (2006, pp. 541) to establish the connection of teaching and transformational leadership, we can see how his extensive research suggests that instructor transformational classroom leadership

> "enlists extra effort on the part of students"

and influence students' perception of their instructor's effectiveness in the classroom and positively impacts their satisfaction all of which was previously confirmed by Crowther (1997) in previous research.

Appendix A, enumerates several accounts of various authors from over three decades of research establishing a connection between teaching and attributes of Bass's (1985) transformational leadership construct. The consideration for all that has been confirmed through research and studies conducted in classrooms points out that while teaching, instructors one way or another display transformational skills to enhance students' learning and create a positive classroom climate to establish 'routines for desired behavior' (Munthe, 2003).

Commentary

Going through the explored research of the various perceptions of classroom instruction, it is suggested to take a look at (Table 2) which summarizes instructor' characteristics according to several studies; the influential instructor is being looked at from the instructor perspective (IP) and student perspective (SP).

While critically analyzing the studies presented, it seems that mastering the interpersonal skills and 'caring' for students, appear to be the common denominator. Hence, we can argue how the job of teaching is highly reliant on exercising transformational leadership skills as described by (Bass, 1985). The second most important aspects concern organization, preparedness, communication skills and enthusiasm for teaching; these all appear to be necessary aspects for the job of teaching. At least three studies agree that instructor knowledge of the subject is very important as well as intellectually stimulating learners. The latter are both aspects of transformational leadership attributes. Another observation concerns how influential instructors could be perceived as such, which means that they intended to embody those characteristics. The

final observation, which also deals with the influential instructor, and it has to do with being flexible in terms of the process and environment of teaching, which we could argue, tends to motivate students (Ruddell, 1995)

The lesson to draw from studying the similarities amongst the studies is that instructors could in fact improve their performance in the classroom using transformational skills. This is possible since there are seven characteristics shared by 'best liked' and 'influential instructors' (IP), six characteristics shared by 'best liked' and 'influential instructors' (IP), five characteristics shared by 'best liked' and 'excellent instructors' and the same for 'influential' (IP) and 'excellent instructors'. Consequently, we can see that although the studies were conducted almost a decade apart, the characteristics of best-liked, influential and excellent instructor have a lot in common.

Best Liked Slotnnick et al. (1989) Johnston (1990)	**Least Liked** Slotnnick et al. (1989) Johnston (1990)	**Influential (IP)** (Ruddell, 1995)	**Influential (SP)** (Ruddell, 1995)	**Excellent** (Kane et al., 2004)
Organized	Disorganized	High expectations of self		Research/ teaching nexus
Prepared	Unprepared	Energy, Excitement & Passion	Effective teaching strategies	
Knowledgeable	Uninteresting			Subject knowledge
Able to communicate	Unclear	Material personally relevant		Skills
Care about students	Bad attitude	Sensitive, warm & caring	Personal caring	Interpersonal relationships
Enthusiastic about subject		Intellectual excitement	Excitement about subject	Personality
Challenging & demanding		High demands on learners	Motivating	
		Flexible	Adjust to individual needs	

Adapted from:

- *Slotnick, H. B., Tabor, L., Pelton, M., Keable, D., & Fuller, M. (1989,March 30). Adult learners: Testing some hypotheses, drawing some implications.Unpublished paper presented at the 1989 Annual Meeting, American Educational Research Association, San Francisco, CA.*
- *Johnston III, G.P., (1990) Best liked/least liked teacher attributes: Herzberg's two-factor theory of job satisfaction. Journal of Education for Business, Nov/Dec90, Vol. 66, Issue 2*
- *Ruddell, R.B., (1995). 'Those Influential Literacy Teachers: Meaning negotiators and Motivation Builders' (pp. 454-463) The Reading Teacher, Vol 48, No.6, March 1995, International Reading Association.*
- *Kane, R., Sandretto, S., & Heath, C., (2004) An Investigation into Excellent Tertiary Teaching: Emphasising Reflective Practice, Kluwer Academic Publishers. Printed in the Netherlands.*

Table 2 – Comparative table of instructor characteristics based on various studies

2.4 Leaders of Learning

Introduction

Part of the education and leadership series at Harvard Graduate School of Education, '*Leaders of Learning'* is an online course delivered by Dr. Richard Elmore. The course is offered for free to the general public through (www.edx.org) an online learning platform and a massive open online course MOOC, founded by Harvard University and MIT in 2012. A wide range of courses offered free of charge from leading universities to learners worldwide.

Dr. Elmore organizes the course '*Leaders of Learning'* (LoL) under four main modules, with some intervening surveys to collect learner's feedback on particular issues regarding the modules covered. The course aims to:

- ✓ *Encourage the learner identify with at least one of the theories of learning*
- ✓ *Discover what leadership looks like in different learning environments*
- ✓ *Highlight how an organization's structure reflects its theories of learning*
- ✓ *Suggest how physical and digital design shape learning*

The course value

The course suggests to its learners that they will gain the tools to better understand and participate in the development of learning in the future. Therefore, the course could be beneficial in several ways:

- *An experience to discover one's explicit or implicit theories of learning which according to Elmore (2014) are deeply rooted in how a person' learns, teaches, and thinks about leadership and learning.*
- *An insight into some of the contemporary concerns of instructional research from some of the leading American universities, which point out to the form, content, manner and motivation*

of learning (Elmore, 2014). As well as ways to lead and organize learning as a mean to stay up-to-date with the constant change in learning.

Modes of Learning Framework

The main premise of the Modes of Learning framework is to organize how people learn, how knowledge is transferred and how the leadership of learning is taken place along two axes namely; Horizontal ranging from (*Hierarchical* to *Distributed*) in relation to Vertical axis fluctuating between (*Individual* to *Collective*) see Figure 1.

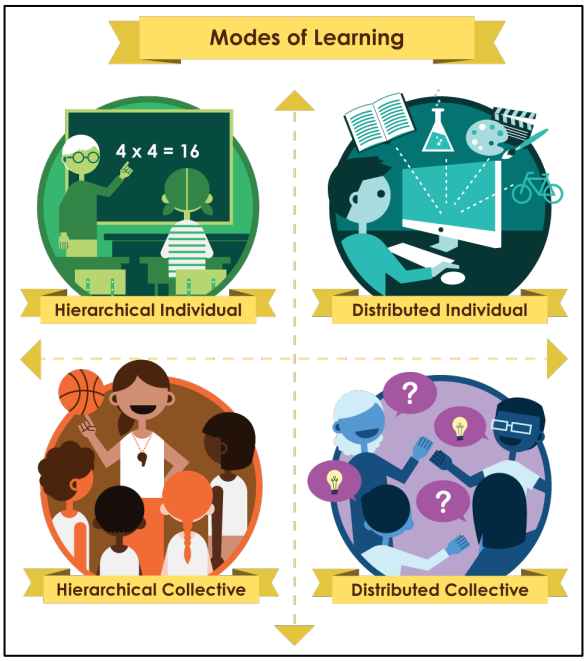

Figure 1 – Modes of Learning Framework (Elmore, 2014)

The major four distinctions in the framework suggest that the **hierarchical** category organizes learning into well-defined, sequential progression of learning based on the performance of the learner throughout the cycle. The second major category is the **distributed** learning where the learner has more choice of what to learn and how to learn. The **individual** category, however, suggests that the learner is engaged in individual direct learning. The **collective** category of

learning is concerned with the social aspect of learning where learners share common interest and bound together in a learning community (Elmore, 2014).

Modes of Learning

The modes of learning serve as the foundation for the framework to help position the learner based on their tendency, interest, experience as well as effectiveness and development stage with regards to learning. Through such positioning, the learner gains insight on the relevant modes of leadership, organization and design that are most appropriate to the chosen mode of learning.

Modes of Leadership

Having chosen the most relevant mode of learning, the choice of a mode of leadership complements the required leadership knowledge and skills for the particular mode of learning. The mode of leadership is extremely beneficial in various ways; it serves to reflect about what happened in the past? What is happening now? And how to go about learning as a career in the future?

Not only does the mode of leadership assist the educators to know about themselves, it also helps a great deal to know about the type of organizations they might want to work for and also the learners they are involved with. So, it is some sort of positioning that helps to identify the existing capabilities and further required skills to develop the most appropriate leadership of learning.

Modes of Organization

The mode of organization refers to the essential aspects of organizing the learning environment with regards to the structure, processes and relationships that describe the organization where learning is taking place. It is somewhat a description of the organizational culture and the extent to which the type of learning and style of leadership is adequate to the mode of learning.

The most successful leaders of learning according to Elmore (2014) are the ones who are capable of finding the best fit for how people learn and the appropriate culture for them as well as the most appropriate ways to organize the learning environment.

Modes of Design

The modes of design refer to the physical and digital design of the learning environments. Again, design is relative to the modes of learning, leadership and organization and at the same time is judgmental to the effectiveness of the mode of learning. Design refers to the infrastructure and the way it's organized to tailor to the right audience (Children or Adults) and to make sure to promote for quality learning.

Of course the requirements for the physical design are different to the digital design in ways where light, color, space, furnishing and a number of other consideration play a role to position the mode of learning under one of the four cultures. Dr. Elmore made reference to Kumar's (2013) design methods, which entail a number of considerations about people's experiences and interaction with the physical design of buildings.

Hierarchical Individual Quadrant

Learning in the hierarchical individual quadrant follows a planned and sequential progressive path. The learner does not have much to decide on (what, when, where, why and how) to learn. On the contrary, the learner assumes the sole responsibility to achieve a predefined level of knowledge based on the experience they had.

Leadership of learning under the hierarchical individual quadrant is empowered by stability, consistency and control where change is not appreciated very much. Certain individuals in the upper echelon of the hierarchy delineate the roles and responsibilities.

The organization of the hierarchical individual quadrant supports the culture of responsibilities and well-defined roles, which goes in sync with the style of learning and leadership that takes place.

The design of the learning environment is based on dedicated learning spaces where learners physically move from one 'physical learning space' to another. The learner is forced to be in a certain place at a certain time to learn a certain lesson from a designated teacher.

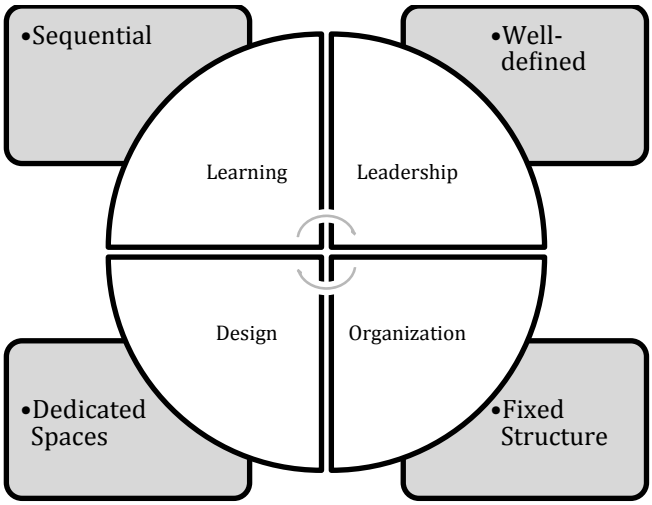

Figure 2 – Hierarchical Individual Quadrant (Elmore, 2014)

Hierarchical Collective Quadrant

Learning under the hierarchical collective quadrant is with the purpose of experiencing the advantages of collective learning and realizing the importance of being engaged in the larger community and society as a whole.

In harmony with the communal aspect of learning under the hierarchical collective quadrant, leadership assumes roles of control and structure of the learning community and provides the necessary framework to support it.

The organization seeks the creation and maintenance of the learners' community where collaboration is the most important value and coherence is the norm in order to contribute in the development and sustainability of society.

The structure and design of the hierarchical collective quadrant is similar to the hierarchical individual quadrant. Except that there is a much more tendency to open the boundaries of the traditional learning environment (the classroom) to the external community and sometimes use other spaces (gymnasium or an auditorium) as a shared learning space.

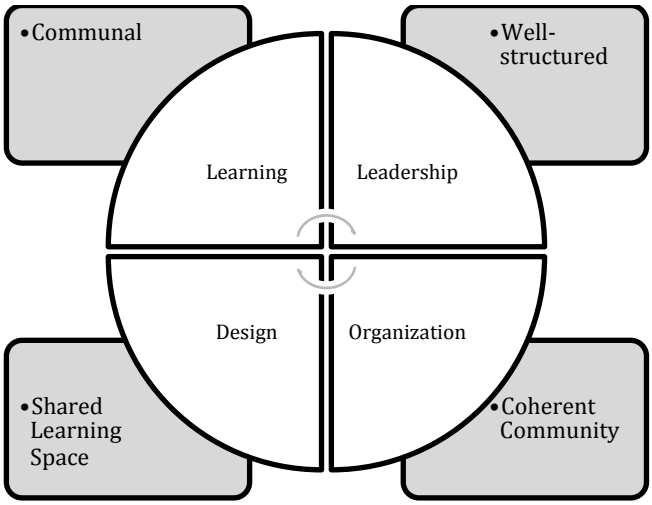

Figure 3 – Hierarchical Collective Quadrant (Elmore, 2014)

Distributed Individual Quadrant

Learning in the distributed individual quadrant is characterized by independence in terms of the (what, when, where, why and how) to learn. The motivation is intrinsic and the learner assumes the burden of the effort, the investment and the level of engagement necessary in the learning experience.

Given the nature of the learning environment and the motivation of the learner, leadership in this context is much more creative in thinking and entrepreneurial in spirit. The job of the leaders of learning is confined in finding the best ways to deliver for the interest of the learner in the best possible ways and not so much worrying about the means and tools to do it.

Perhaps the best way to describe most organizations in this quadrant as being disruptive organizations because they are able to spot opportunities to do things in radical different ways, they can deliver quick results and cope with the constraints and challenges of the market. Therefore, they remain innovative in their areas of specialties.

The digital nature of the learning environment suggests a number of challenges amongst which is creating structure, maintaining motivation and finding the best ways to integrate the digital into the physical learning environment or whether to completely migrate to digital environment.

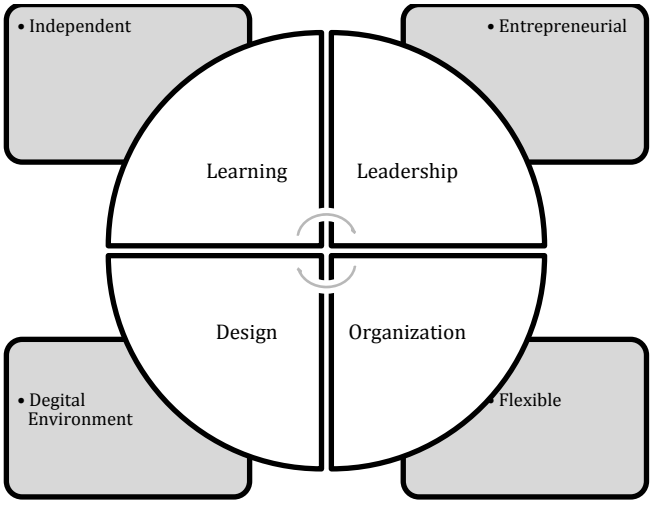

Figure 4 – Distributed Individual Quadrant (Elmore, 2014)

Distributed Collective Quadrant

Under the distributed collective quadrant, the amount of freedom the learner has is greater than any of the other quadrants. In part due to the expertise of the learners in particular domains of interest. Another reason has to do with the format of the learning that's taking place. This is because the digital environment dictates more flexibility and discretion, which allows learners to group around common interests.

Leading the distributed collective quadrant entails appreciating the flexibility in the environment but also being able to organize learning around collaboration and cooperation. Nonetheless, leaders of learning in the digital environment have to constantly keep up with what motivates different groups of learners throughout different context.

The organization in this context tends to be very flat and flexible, manifests in some sort of network where leaners choose to participate in, share their interests, and regulate the quality and quantity of their interaction.

The design of the distributed collective quadrant is based on collaborative and cooperative networks that are regulated and maintained by the learners themselves. The learners are the *prosumers* (producers/consumers) of their own products and services and tend to organize their learning environments in the best way they see fit.

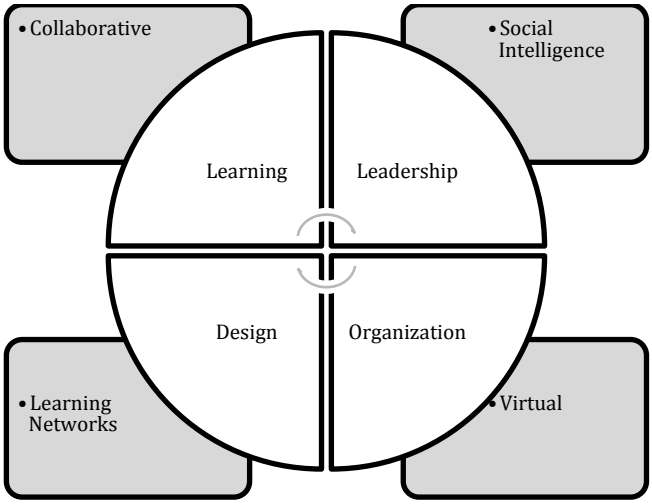

Figure 5 – Distributed Collective Quadrant (Elmore, 2014)

Leaders of Learning Framework

Reflecting back on the learning framework in a more comprehensive fashion would entail synthesizing the main takeaways from the learning, leadership, organization and design of learning under the two major axes and the four main categories (Table 3).

Quadrants		Modes			
		Learning	***Leadership***	***Organization***	***Design***
Hierarchical	***Individual***	Sequential	Well-defined	Fixed Structure	Dedicated Spaces
	Collective	Communal	Well-structured	Coherent Community	Shared Learning Space
Distributed	***Individual***	Independent	Entrepreneurial	Flexible	Digital Environment
	Collective	Collaborative	Social Intelligence	Virtual	Learning Networks

Table 3 – Leaders of Learning Framework (Elmore, 2014)

Summary of the first of part of the review

The literature review of this paper focused on three essential areas; from a holistic viewpoint to reach up to the instructor classroom leadership. The three schools of thoughts regarding school leadership were discussed to set the stage for the research on educational leadership. The second part concerned various components of classroom leadership leading up to the last section, which discussed instructor leadership within the classroom.

The objective behind the first part of the literature review was therefore achieved to draw a connection between the development of school leadership, which has gotten more specific into the influential aspect of the instructor's job to create a positive classroom climate and influence student's perceptions towards satisfactory learning environment.

The transformational aspect of the instructor's job was presented as appealing approach to leadership for learning. Therefore, coming into agreement with the upcoming trend of school leadership as Pounder (2006) suggest as being "*the fourth wave of teacher leadership*".

Leaders of learning has been presented as an example of contemporary research in the domain of leadership of learning in order to examine the extent to which leading education institutions converge the knowledge and experience gathered throughout decades of educational research to sustain the value of education in the face of the dynamics and changes affecting education and learning in recent times.

2.5 Learning

What is learning?

Learning comes from different sources, environments and takes a range of shapes and forms. Learning is not exclusive to classrooms and books. Yet, its very interesting to look up the word '*Learning'* on Google or Yahoo images and note how many pictures associated with *Learning* are either a representation of a body part and in the majority of the cases a human 'Brain', other pictures are of objects such as 'Light Bulbs' or elements of nature such as 'Trees'. Such observation should lead one's curiosity to define learning.

Definitions of Learning

As much as learning might seem straightforward to most of us, theorist, researchers and practitioners alike have reached a consensus that there could not be a universal definition of learning (Shuell, 1986). Amongst the various attempts to define learning, two recent perspectives are worth bringing to attention (Table 4).

(Pritchard, 2014)	(Schunk, 2012)
▪ A change in behavior as a result of experience or practice. ▪ The acquisition of knowledge. ▪ Knowledge gained through study ▪ To gain knowledge of, or skill in, something through study, teaching, instruction or experience. ▪ The process of gaining knowledge. ▪ A process, by which behavior is changed, shaped or controlled. ▪ The individual process of constructing understanding based on experience from a wide range of sources.	Learning involves acquiring and modifying knowledge, skills, strategies, beliefs, attitudes, and behaviors. People learn cognitive, linguistic, motor, and social skills, and these can take many forms. Learning is an enduring change in behavior, or in the capacity to behave in a given fashion, which results from practice or other forms of experience.

Table 4 – Definitions of Learning

Reflecting back on the input of the two authors, the main observation point out to the fact that a range of definitions exists for learning. Pritchard (2014) emphasizes on the process of constructing an understanding based on the experience through which learning takes place. Schunk (2012), however, takes a step further to highlight the change in behavior of the learner based on practice and experience. Both perspectives are complementary and build on each others' premises that **learning is a process of gaining knowledge which includes a behavioral as well as a cognitive approach all along the process of acquiring and modifying knowledge and skills, hence experiences and attitudes**.

Criteria of Learning

The more we investigate the concept of learning either through observation, examination or assessment; it becomes more apparent that most learning is dependent on essential criteria, which could be summed into three major conditions (Figure 6).

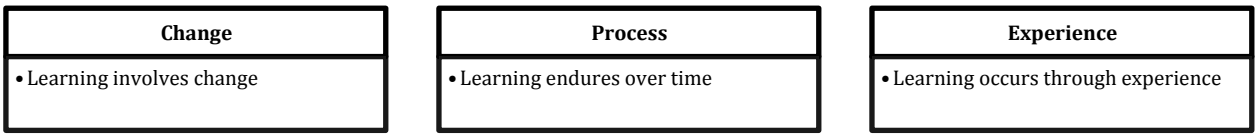

Figure 6 – Criteria of Learning (Schunk, 2012)

One criterion of learning is the fact that learning is either supposed to result or produce change which entails a range of conditions including but not limited to behavior, skills, attitudes just to name a few. Such perspective hints to the fact that learning may and may not be always observed in terms of outcomes. In most cases learning is demonstrated when the learner either admits or is willing and able to display the capacity of the acquired learning through practical terms where the new skills, knowledge, beliefs, or behaviors become tangible capacities after going through the learning experience. The work of Bandura (1969) points out the behavior modification through the acquisition and performance of diverse skills, strategies, and behaviors. Consequently, it seems imperative that in order for the change in behavior to occur, learning must endure over time otherwise the change has only occurred momentarily and it is not here to last. Therefore, the change in behavior must translate into sustained new knowledge and skills to qualify as a learning condition. The last criterion and perhaps the most important of all is the fact that learning occurs through experience which entail the social context at which learning is taking place. Here, the environment is of the utmost importance in terms of the interactions and influence that the learner experiences which develop the existing skills and competencies into more improved ones, provided that these interactions are meaningful, engaging and allow change in behavior to occur (Schunk, 2012).

How knowledge is acquired?

Perhaps another way to ask such question is to investigate 'How do people learn?' The criteria of learning provide a great deal of insight about what we know today about learning, however, a long debate of how knowledge is acquired has been going on for a long time; in other words, Epistemology; the branch of philosophy that deals with the theory of knowledge. Epistemology seeks to investigate the nature of knowledge, the rationality of belief, and justification. Two prominent positions on how knowledge is acquired could be reviewed in terms of *Rationalism* and *Empiricism*.

Rationalism and Empiricism

The two major schools of thought in Epistemology could be compared in relation to various criteria to better grasp the fundamental differences between the two (Table 5). The aim of *Rationalism* is to discover the language of the human mind referred to as 'Linguistic Competence', it emphases on theory and argues that reason and logic is the source of knowledge. You can only know what you reason through. Hence, *Rationalists* suggest that knowledge can be gained a **priori**. On the other hand, the aim of *Empiricism* is to analyze language as it actually occurs and examine the 'Linguistic Performance'. Such process is based on experimental science, which feeds from data, moreover, *Empiricism* postulate that experience and experimentation is the source of knowledge. You can only know what you experience through your senses. What is also important for *Empiricism* is that fact that knowledge is only gained a **posteriori** and only via senses (Markie, 2004).

Criteria	Rationalism	Empiricism
Aim	Linguistic Competence	Linguistic Performance
Emphasize on	Theory	Data
Paradigm of Knowledge	Mathematics	Experimental Science (Biology)
Assumption	An 'innate language faculty'	All knowledge is gathered only via senses
Source of Knowledge	Reason and logic is the source of knowledge	Experience and experimentation is the source of knowledge
Knowledge acquisition	Knowledge can be gained a priori	Knowledge is only gained a posteriori
Prominent Figures	Immanuel Kant Plato Rene Descartes Aristotle	John Locke John Stuart Mill George Berkeley David Hume

Table 5 – Major schools of thought in Epistemology

Amongst other notable differences between *Rationalism* and *Empiricism* is the point of views and perspectives of the two major schools of thought in Epistemology with regards to 'Certainty and Intuition'. For example, *Rationalism* speculates that genuine knowledge is certain because it is rational, not empirical while *Empiricism* suggests that experimental science cannot produce certainty but probability. Furthermore, *Rationalists* believe in intuition and suggest that the senses are easily fooled, while *Empiricists* do not believe in intuitions and argue that reason only gives access to '*Uninformative Tautologies'. Rationalists* believe that individuals have innate knowledge or concepts and that the mind contains innate ideas. But *Empiricists* believe that individuals have no innate knowledge in fact the Mind is seen as a 'Tabula Rasa' (Markie, 2004).

For what it's worth, knowledge is acquired through both *Rationalism* and *Empiricism* for they overlap and complete each other. For the most part, Behaviorism tends to be more Empiricists while Cognitive theories have more to do with Rationalism.

Ways of Learning

There exist several ways in which people come to know what they know or the way they learn and this in part is very much associated to how educators share what they know with others. Four major categories describe the learning experience that we can identify with; transmission, acquisition, accretion, and emergence (Table 6).

	Transmission	Acquisition	Accretion	Emergence
Learning	Teaching others	Choosing to learn	Learner is unaware that they are learning	Demonstrating capacities of synthesis, creativity, intuition, wisdom, and problem solving
Method	Purposeful Teaching Telling, demonstration, and guiding	Exploring, experimenting, self-instruction, inquiring, and being curious	A gradual, sometimes subconscious or subliminal, process	Seeking patterns and constructing and structuring new ideas and forming new meanings
Learner	Invited to learn	Emotionally committed	Social Learning (Imitation)	Actively interacts
Material	Information, Knowledge, Ideas and skills	Relevant or interesting to the learner	Language, Culture, Habits, Prejudices, Social rules, Behaviors	New ideas, Meanings, Patterns, Conclusions
Benefits	Good for structured information, building core knowledge, compliance training.	Tight link to need, high relevance, broad range of learning (Tacit-Explicit), continuous, modeled after 'real-life'	Learner highly motivated, related to personal interest	Tacit learning, deep learning, relevance, higher order thinking skills, fosters creativity and innovation
Drawbacks	Instructor-based, learner viewed as 'container to be filled', long development time.	Learners often unaware of learning (devalue process), at odds with how learners have learned in the past (unfamiliar process)	Learner may not be learning 'right' skills, feedback from expert may be lacking	Time consuming, hard to do, requires high competence of subject matter
Effectiveness	Not very effective in relation to long-term retention	More effective than transmission	Judged by the learners themselves	Highly dependent on: - The allocation of time - Opportunities to reflect and construct new knowledge

Table 6 – Ways of Learning, adapted from (Siemens, 2005)

Transmission is the traditional fashion of teaching others by demonstrating and guiding the learner to come to know some knowledge and information and introduce them so some ideas and concepts which are mainly designed and introduced by the educators and judged to be essential to learn. This predominant method of learning is not seen to be effective on the long term because it does not necessarily reflect what the learner might consider to be interesting to learn, in fact, what the learner might need in their future careers. On the contrary, **acquisition** is another form of learning where the learner is actually choosing what to learn by exploring and experimenting new domains and is guided by self-instruction and curiosity. What makes this method more effective than traditional **transmission** is the fact that the learner is emotionally

committed because of the relevant and interesting materials being learned. **Accretion**, on the other hand is a social leaning model where the learner might be unaware that they are learning some new language, habits and behaviors through interaction with others and sometimes by imitating others around them. Hence, this learning fashion goes on a subliminal way and a gradual rhythm while the learner discovers later on that they have acquired some new knowledge and skills. Another form of learning is more inspirational and original in form and content of learning and its labeled as **Emergence**, which involves higher levels of interaction with the learner. This model of learning capitalizes on the learners' capacity to engage in convergent thinking and problem solving through synthesizing knowledge and concepts and seeking to discover patterns and structures in what is being learned which enables the learner to form new meanings. This reflective style of learning is somewhat challenging to achieve in part because of the allocation of time to reach the desired results and also the efficacy of the educator to provide the opportunity for knowledge construction in an adequate learning environment (Siemens, 2005).

2.6 Learning Theories

Extensive research and literature has been concerned with learning theories and the psychology of learning. And the debate over the reliability of the different paradigms of learning remains relevant throughout different contexts (times, places and people). Some sort of consensus seems to unite over behaviorism, cognitivism, and constructivism amongst the most influential learning theories of all time. The following sections will explore the highlights of each perspective and discuss key differences and similarities with regards to essential aspects of learning.

Behaviorism

The concept of behaviorism emerged as a result of several experiments to prove the impact of altering animal behavior and response and explain learning in terms of environmental events. Later on the concept gained some relevance to human behavioral' conditioning. Behaviorists claim that behavior could be understood as is, without any consideration for consciousness or other cognitive processes.

Behaviorism considers the learner as a clean slate (i.e. tabula rasa) who responds to environmental stimuli. Learners are passive because their behavior is shaped through positive application of a stimulus or negative withholding of a stimulus as part of reinforcement or punishment in order to increase or decrease the likelihood that the antecedent behavior will happen again. Learning is therefore defined as a change in behavior in the learner (Watson, 2013).

Overall, two main perspectives arise as the hallmark of conditioning theories, namely the classical and operant conditioning. Classical conditioning forms associations between stimulus and unconditioned stimulus. Operant conditioning forms an association between behaviors and the resulting events. Both classical and operant conditioning use acquisition, extinction, spontaneous recovery, generalization, and discrimination (Pavlov & Anrep, 2003).

Classical conditioning uses reflexive behavior, a behavior that occurs as automatic response to some stimulus, i.e. the animal does not control the behavior and the animal does not have a choice in how to behave. Operant conditioning uses operant or voluntary behavior that is shaped by consequences. The animal controls the behavior and has a choice in how to behave (Skinner, 2011).

Cognitivism

The cognitivist movement rose as a revolutionary approach to the behavioral perspective that has been judged as lacking depth of analysis of the mental processes of learning. Cognitivist sought to uncover the mental processes rather than the observable behavior of the learner. In this perspective, knowledge is a construction of the symbolic mental representations by the learner who is encouraged to explore existing cognitive structures as a foundation for the learning process (Cooper, 1993).

The human mind is seen as a 'black box', which serves for mental processes such as thinking, memorizing and problem solving. In other words, the mind is operating as a computer processor that is to say; input – processing and – output. Cognitivism values the cognitive role of the learner as an active participant in the learning process based on observation, rationalization that leads to certain outcomes. Therefore knowledge is an accumulation of the schema or symbolic mental constructions (Ertmer & Newby, 1993).

Constructivism

As the name suggests, constructivism is a perspective to learning that entails learners' engagement in constructing or creating subjective representations of objective reality. This means that a learner is viewed as 'an information constructor'. The process involves new information being associated to existing knowledge. Hence, the learner is engaging in a subjective mental representation (Piaget, 2013).

Perhaps the most influential concept to highlight in terms of constructivism is that of Vygotsky's (1978) social development theory, which emphasized a great deal on the context of learning. Knowledge construction is strongly influenced by the learner's experiences, which is tested in relation to their social and cultural environment.

Summary of Learning Theories

The following paragraphs will enumerate areas essential to distinguish the viewpoints of the three most common learning theories.

Knowledge

Behaviorists believe a great deal in demonstrating knowledge through **actions** not minding the cognitive aspects of it. Cognitive constructivists advocate the learner's **experience** and stage of cognitive development and cultural background to construct knowledge. Constructivism, however, takes a step further and suggests the role of the social context and **interactions** in the cognitive development of the learner, hence, emphasizing the role of language and culture.

Learning

Learning in behaviorism is based on the quality of the response of the learner, which could be enhanced through 'shaping' as a means to reach a desired behavior; the latter must be reinforced to increase its reoccurrence. Therefore, **learning is the effect of positive reinforcement.**

Cognitivsim, on the other hand sees learning as a combination of '*Enactive*' and '*Vicarious*' activities to promote the learner's experience and enhance their social skills. Thus, **learning is presented as a process of active discovery.**

Constructivism, however, suggest that learners gain independence in search for meaning in an attempt to construct their own understandings of knowledge and skills in reference to their social context. Accordingly, **learning is a collaborative process.**

Motivation

Behaviorists motivate the learner based on the reinforcement history; the learner seeks rewarding experiences and produce appropriate responses accordingly. Therefore, immediate feedback is judgmental to generate future desired behavior, which proves understanding of the learning outcomes. The process is somewhat **mechanical** where the expected outcome is sought after from the beginning of the process using extrinsic rewards.

Cognitivists investigate the learner's cognitive capacity to stimulate further involvement, engagement and development. Hence, the learner realizes the importance of investing effort to reach desired outcomes, an intrinsic approach towards achievement originating from the internal drive of the learner. Therefore, the process involves **exchange** of goals, values and expectations in order to meet or exceed expectations.

Constructivism reveals the mature aspect of the learner to promote the learning process as a result of understanding the current capabilities and seeking to develop as a way to keep up with the social context. Hence, learning in this perspective is motivated both intrinsically and extrinsically as responses to **environmental** stimuli.

Teaching

Behaviorists depend on practice and repetition to strengthen responses, through clear and measurable objectives staged in a gradual fashion to transit towards the end result. A tangible positive reinforcement is extremely important to generate and **reproduce** desirable behavior or correct answers.

Cognitivists believe in **accommodating** the current knowledge, skills and competencies of the learner and seek to promote learning through tutoring and mentoring. The main goal of teaching is to find the best ways to walk the learner through the cognitive stage of learning with much confidence and self-efficacy.

Constructivism is about providing structure for learning and working with learners to develop team skills, leadership and collaborative learning. A **supportive** environment is critical to gain confidence and the necessary skills to learn in a group and sharing accumulated knowledge with other learners.

2.7 Learning Frameworks

Andragogy Vs. Pedagogy

Teaching a group of adults is different from teaching a group of children. Both are different audiences with distinctive needs and expectations (Table 7). Hence, the approach must be different using distinctive methods; when teaching a group of children an instructor is required to use what is commonly labeled as *Pedagogy*. On the other hand, the science of teaching an adult audience is called *Andragogy* (Knowles, 1980).

Characteristics	Adult *(Andragogy)*	Child *(Pedagogy)*
1. Autonomy Vs. Dependency	Self-Directed	Generally Dependent
2. Communication Style	Participative	Directive
3. Learner Task	Solve Problems	Define Problems
4. Educator Role	Challenger	Facilitator
5. Information Source	Self, Experience	Educator
6. Learning Style	Experiential	Guided
7. Environment	Mutual Learning	Mostly Expected
8. Motivation	Internal	External
9. Curriculum	Learner-Centered	Curriculum-Centered
10. Learning Orientation	Problem-Centered	Subject-Centered

Table 7 – Child versus adult learning (Knowles, 1980)

It is amazing to find out that over 30 years ago, Knowles (1980) made a number of distinctions between child and adult learning approaches. These key characteristics have been reviewed to match contemporary conditions based on the author's experience in teaching as demonstrated in (Table 7), which highlights the differences in a much comprehensive fashion followed by a discussion of the ten characteristics:

(1) A classroom of children is more likely to be dependent on the instructor rather than an adult audience, which tends to have more of a sense of direction. And that is apparent even in the relationship with others in the classroom or within the learning environment.

(2) The communication style with adults tends to be more of a dialogue marked by a two-way communication where the learner is encouraged to participate and share input. Rather than a child learner would more likely be confused in such environment and maybe that would encourage the instructor to be more directive and choose what is best for the group to learn.

(3) The adult learner is expected to solve problems being presented with, while the instructor would be satisfied with a young learner (a child) to at least pinpoint a problem and be able to define it if possible.

(4) The educator must be a facilitator who seeks to engage the child learners to discover for themselves. However, adult learners should be challenged so they can experience higher levels of independence in learning this is referred to as ‘intellectual stimulation’ by Bass (1985)

(5) The educator is more likely to be the source of information for a child learner, while adult learners are expected to research, participate, debate and exchange ideas, concepts and experiences.

(6) Adults are supposed to be experimenting for themselves, they are supposed to have more of a hands-on experience so they can learn by doing. While, children can experiment but at least the educator is guiding them throughout the process and making sure they are reaching a particular conclusion.

(7) There is mutual learning between the educator and the adult learner where the classroom is supposed to feel like a learning-community. Whereas, a classroom full of children is mostly directed, guided and is supposed to reach expected learning outcomes most if not all of which the educator is fully aware of. In a sense, educators are learning from the adult learners, as much as they are teaching them and that is of course highly dependent on the approach and personality of the educator.

(8) In terms of motivation, an adult learner has more of a choice to be there at that time in that place to learn that particular topic. However, a child learner feels more like they have to be there, otherwise they might be some short-term consequences they will have to deal with. Hence, if the adult wants to be there, they need to at least learn something new, something interesting and most importantly useful to them.

(9) Adult learners expect to experience a learner-centered curriculum to tailor to their major, domain, specialty, job or whatever their purpose might be. However, a child learner adheres to the decision of the educator to decide what to learn, when and how.

(10) Finally, the orientation of the learner is different from adult to child, while an adult learner mainly expects to learn problem-solving skills and ways to prepare for likely future challenges. A child learner is expected to pass or maybe perform well on a subject and hopefully remembers some of the key lessons to keep for the future. Here, the outlook might be short versus long term benefits from the whole learning experience.

So what do we make out of all of this! One cannot help but conclude that teaching a group of adults is different in various ways and requires '*Andragogy*' (Knowles, 1980). Hence, relying on the use of practical training based on case studies as part of a classroom activities and curriculum is the right thing to do.

Pedagogy Vs. Heutagogy

A major shift in the learning context has taken place to move the purpose and motivation for learning from *Pedagogy* to *Heutagogy*, the latter originates from the Greek word '*Self*'. What this entails is that learning is self-determined by the learners themselves where they bring in their capabilities in a proactive process towards learning what is useful to their experiences and required by their domains. Educators, however, have to assume a different role in this new approach where they facilitate the learning process and seek to provide guidance and resources rather than fully control the process. Such a move towards a different attitude to teaching or training should be regarded as a shift in the culture of learning. What this entails is that the learner is engaged in direct negotiation of what should be learned and how it will be learned (Hase & Kenyon, 2000).

The more one contemplates what Heutagogy is all about; it becomes clear that is centers on 'Self-determined Learning' which entails a great deal of self-efficacy. The learner claims the ability to decide what to learn and assumes the competence of acquiring the proper knowledge and skills (Kenyon & Hase, 2010). Furthermore, this necessitates the learner's awareness of their preferred learning style and accommodation to the changing face of education and complexities of today's work environment (Bhoryrub et al., 2010).

Andragogy Vs. Heutagogy

Having explored the three different frameworks to learning, it should come as natural to note the relationship amongst all of them. First, there is a natural evolution from (Peda > Andra > Heutagogy) as demonstrated in table 8.

Greek	Greek translation to English	Learning Context
Pedagogy	To lead a child	Child Learning
Andragogy	Leader of man	Adult Learning
Heutagogy	Learning by yourself	Self-Determined Learning

Table 8 – Origins from Greek to English

The natural development of learning could be seen as a continuum of learning based on a contrasting relationship between (**Autonomy/Maturity**) on the one hand and (**Control/ Structure**) on the other; when one increases the other decreases. For example, Pedagogy (Child Learning) suggests lower level of learner maturity and autonomy and higher instructor control and more structure is required. Contrastingly, in the case of Heutagogy (Self-Determined Learning) there is little instructor control and structure of the learning environment and more learner maturity and autonomy (Canning, 2010, see Figure 7).

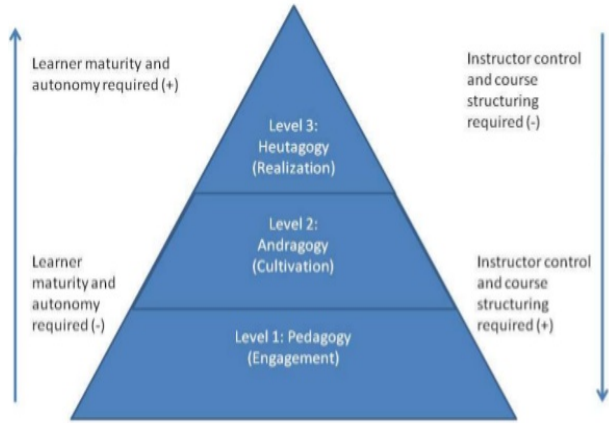

Figure 7 – Pedagogy, Andragogy to Heutagogy (Canning, 2010)

Andragogy (Self-directed)	▶	Heutagogy (Self-determined)
Single-loop learning	▶	Double-loop learning
Competency development	▶	Capability development
Linear design and learning approach	▶	Non-linear design and learning approach
Instructor-learner directed	▶	Learner-directed
Getting students to learn (content)	▶	Getting students to understand how they learn (process)

Table 9 – Andragogy Vs. Heutagogy (Hase, 2009).

The maturity and autonomy of the learner is developing in sync with their cognitive development from Andragogy to Heutagogy; a progression takes place from competency to capability development, more flexibility in learning, even more self-direction and self-determination is called for (Hase, 2009, see Table 9).

Having explored a number of characteristics of the three main frameworks to learning, it is essential to suggest to educators and trainers to review and learn the fundamental aspects of each approach and assume proper roles and obligations.

2.8 Learning Domains

Considerable research took into consideration the learning that takes place as people experience new things and assimilate information and use it in everyday life. Such research has been labeled learning outcomes or learning domains. The main premise of the work of prominent authors in this field sought to highlight three major categories namely cognitive, affective and psychomotor domains, which could be understood in terms of the acquisition of knowledge, attitude and skills that a learner develops throughout a learning experience.

Cognitive Domain (Thinking)

The cognitive domain seeks to encourage the learner to gain problem-solving skills, which contribute to the intellectual development of the learner. The cognitive domain includes a series of activities that walk the learner from the simplest forms of thinking to more complex ones; these activities however, build on each other in order to progress to the next stage.

Anderson and Krathwohl's (2000) taxonomies start out by testing the memory of the learner to remember and retrieve concepts in order to utilize them in the future. The next stage seeks to integrate the knowledge acquired into activities where the learner starts to associate meaning to what has been learned which facilitates the application of knowledge into practical situations and executable activities. Furthermore, the learner is encouraged to engage in higher levels of analyses to determine relationships between concepts and gain the necessary skills to distinguish the various components of the concepts being introduced. Building on the previous stages, the learner is motivated to evaluate and critique what has been presented in order to move on the highest level of creation and reorganization of elements and generation of patterns and concepts (Figure 8).

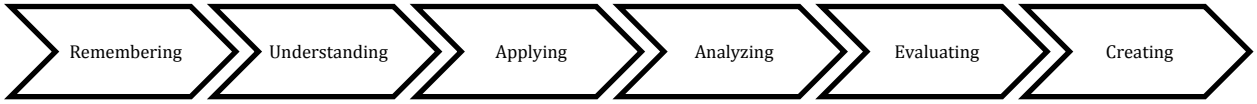

Figure 8 – Cognitive Subdomains (Anderson & Krathwohl, 2000)

Affective Domain (Feeling)

The affective domain seeks to develop the learner's self-confidence and interpersonal skills where emotional growth is essential for acquiring new attitudes based on newly experienced feelings and emotions. Five subdomains constitute the affective domain and they are:

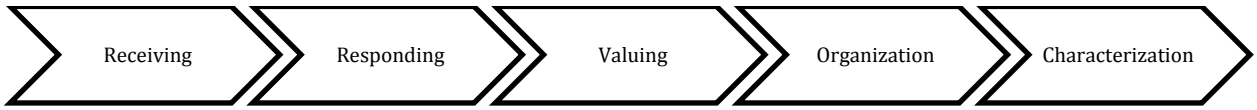

Figure 9 – Affective Subdomains (Krathwohl et al., 1964).

Receiving refers to the fact that the learner is willing and able to receive what is being shared during the learning session. The second subdomain is responding and it has to do with providing feedback and valuing refers to the learner's choice or preference of particular value. These values and beliefs, however, become internalized and organized which eventually leads to the development of the learner's own values which is referred to as 'characterization' (Figure 9).

Psychomotor Domain (Doing)

The psychomotor and/or kinesthetic domain ensures the application of experiential learning through manual or physical skills in the form of activities that sustain the learning experience.

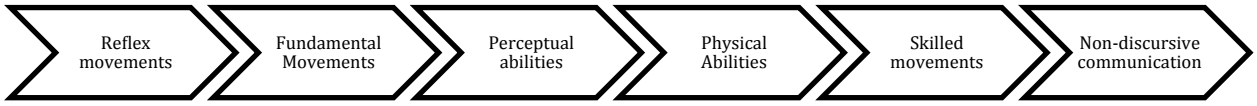

Figure 10 – Psychomotor Subdomains (Harrow, 1972)

The essence of integrating the psychomotor and/or kinesthetic domain is to support the learner's cognitive and affective development and skills with physical action either to enhance the recognition of certain aspects being learned or simply to enhance the learning experience.

The value of exploring the learning domains according to Bloom et al. (1956), lies in the fact that they help to assess and measure where the learner stands in terms of the learning goals set by the educator or trainer and having the subdomains build on each other in terms of complexity and difficulty helps identify the level of learning acquired. Furthermore, educators would seek to be effective and combine all the learning domains for a multidimensional learning experience.

2.9 Learning Styles

Individual learning preferences has been the concern of so much research for a long time, the main objective of most of which is to uncover the various approaches that learners prefer and are more or less receptive to.

Two major trends in research surface to the forefront of what has been uncovered when it comes to human learning. Brain-based learning theory suggests that the human brain and structure is responsible for the way learners receive and perceive information, organize and use it. Another alternative approach explains learning styles and stages in terms of the personality and experience of the learner as a determinant of how people prefer to learn.

Brain Dominance Perspective

The brain dominance perspectives include theories and frameworks such as that of Sperry's (1967) Split Brain Theory, The McCarthy's (1987) 4MAT System, The Gregorc' Model (1985), and the Hermann Brain Dominance Instrument (1991).

The Split Brain Theory

Sperry's (1967) theory splits the brain into two hemispheres; the right side of the brain and the left side, each of which is responsible for particular tasks and functions and is characterized with distinguished capabilities (Table 10).

	Left	Right
Thinking	Linear	Holistic
	Logical	Intuitive
	Sequential	Random
	Sequence	Imagination
	Analysis	Daydreaming
Reasoning	Analytic	Synthetic
	Rational	Emotional
	Reality-Based	Fantasy-Based
	Objective	Subjective
	Critical Thinking	Creative Thinking
Perspective	Looks at parts	Looks at wholes
	Factual	Visual
	Digital	Spatial
	Abstract	Sensory
	Black & White	Color
Organizing	Lists	Dimension
	Convergent	Divergent
	Pattern User	Pattern Seeker
	Numbers	Rhythm
	Systematic	Casual
Communicating	Verbal	Nonverbal
	Words	Images
	Symbolic	Concrete

Table 10 – Attributes of the brain's hemispheres (Sperry, 1967)

One way to notice the differences between the two hemispheres is in terms of thinking where the left side of the brain is believed to be logical, sequential and the right side is more intuitive and random. As for reasoning the left side is objective and uses critical thinking while the right side is rather subjective and relies on creative thinking. Another major difference is that of the perspectives where the left-brain looks at parts when the right side of the brain looks at wholes. The way information is organized is also interesting because the left hemisphere converges information while the right hemisphere engages in divergent thinking. Communicating is also different for people who rely more on one side of the brain than the other.

The 4MAT System

The 4MAT System has been introduced by McCarthy (1987) to suggest a continuum along which learners could be positioned in terms of the way they perceive and process information. McCarthy's (1987) theory takes the Split Brain Theory further and proposes the Limbic/Cerebral parts of the brain responsible for four particular type of learning (Figure 11).

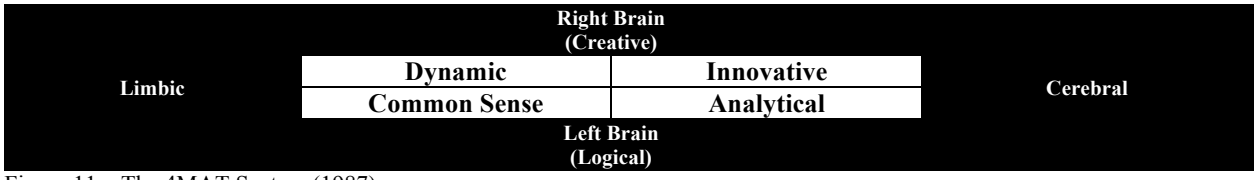

Figure 11 – The 4MAT System (1987)

Dynamic learners engage in creating and acting and want to find answers for 'What if?' which means that they are curious for open-ended tasks that involve risk taking were they can learn by trial and error, role-playing and games and explore hidden possibilities. So they are learners who rely on their own intuition, senses and feelings but they also prefer self-directed discovery and to work independently.

Innovative learners seek to sense and feel and use reflections in learning. They are consumed with answering 'Why?' so they want to find a link between what they learn and how it relates to life in general. This in part means that they want to have meaning in what they do so they can have rich experiences. These learners enjoy working in groups with creative and innovative approaches based on discovery and brainstorming.

Analytic learners are logical in nature and rely on facts and details. They want to organize knowledge and see the abstract in a reflective fashion to the extent that they want to know 'What needs to be learned?' so the more facts they acquire the more motivated they are towards learning and conceptualizing knowledge.

Common Sense learners would like to know ‘how they can use information?’ so they are more interested in problem solving and engage in discovery of concrete experiential learning activities. So it’s important for these learners to be as practical as possible to draw lessons for real and concrete cases and everyday situations.

The Mind Styles Model

The Gregorc Model is another perspective of the brain hemisphere research on learner's ways of thinking and learning. The model sought to classify four patterns of perceiving, processing and ordering information. According to Gregorc (1985), learners would grasp or perceive information either as 'Concrete' or 'Abstract' and would order and process information either in linear 'Sequential' fashion or in non-linear 'Random' way.

	Sequential	Random
Concrete	**Concrete Sequential**	**Concrete Random**
Abstract	**Abstract Sequential**	**Abstract Random**

Table 11 – The Mind Styles Model (Gregorc, 1985)

Concrete Sequential learners prefer to have clear directions and structure where facts are available and plans are clear. These learners seek practical learning outcomes that are based on reality and logical sequence.

Concrete Random learners are creative risk-takers who would like to experiment, rely on their intuitions and work independently to solve problems. Their creative character produces some divergent thinking to reach solutions and find answers for ambiguity.

Abstract Sequential learners would like to collect enough information, analyze it and then apply logical thinking to reach solutions. Structure and organization is key in their way of thinking and self-direction and independence is essential for them.

Abstract Random learners prefer social interaction because working with others is important to them. They capitalize on emotions and feelings and maintaining healthy relationships with others. As much as they are creative and holistic thinkers, they do not favor too much structure and order and would like to break routine procedures.

The Whole Brain Model Theory

Ned Herrmann (1991) argued that a learner's brain has a dominant part, which is responsible for how a person favors learning or thinking. Four quadrants emerge as a result of the brain's division; The left cerebral hemisphere referring to the analytical learners who prefer to quantify, analyze, theorize and process information logically. The left limbic system which makes a connection to the sequential learners who favor to organize, sequence, evaluate and practice what they learn. The right limbic system which describe the interpersonal learners who are keen to be involved in the learner process and share what they learn with others around them. The fourth quadrant is that of the learners who mostly use their right cerebral hemisphere and they are described as imaginative because they are relying on exploration, discovery and would like to conceptualize and synthesize what they learn (Table 12).

	Left Hemisphere	Right Hemisphere
Cerebral	**Theorists (Analytical)**	**Innovators (Imaginative)**
Limbic	**Organizers (Sequential)**	**Humanitarians (Interpersonal)**

Table 12 – Whole Brain Model Theory (Hermann, 1991)

The **Theorists'** learners are the ones who use the Cerebral Left Hemisphere part of the brain. And they are critical thinkers who like to work with facts and details. They seek logic in what they are learning and follow and analytical and quantitative approach to problem solving.

The **Organizers** are learners who use the Left Limbic System part of the brain. These learners are sequential in reasoning and problem solving; they like to follow a step-by-step procedural approach to collect and organize information and plan and implement solutions.

The **Humanitarian** are learners with great interpersonal skills, they use the Right Limbic System part of the brain. These learners are emotional in their thinking and tend to use feelings while dealing with others. As far as their learning is concerned, they would like to see maps and

illustrations and also engage in brainstorming solutions with others because they like sharing opinions and ideas.

The Innovators are learners who use lots of imagination, are holistic thinkers and like to generate diverse ideas when brainstorming to solve a problem. They enjoy working in a group and taking initiative to get things done.

Commentary

The Brain-Dominance theories of learning seek to divide the brain into departments responsible for particular aspects of learning and ordering or processing information. However, one should seek to explore and learn to use all aspects of the brain to perform various tasks and develop new capacities.

The Personality & Experience Perspective

The personality and experience influence on the learner's preference for learning has been addressed in a number of models and frameworks such as the VARK Model of Fleming (1992), the Kolb's (1984) Learning Style Inventory, Honey-Mumford's (1982) Learning Style Model, Felder-Silverman's (1988) Individual Learning Preferences Continuum and Myers-Briggs's (1995) MBTI's model.

The VARK Model

Originally developed by Neil Fleming (1992), the VARK model breaks learning styles into four major categories; Visual, Aural, Read/write, and Kinesthetic all of which are sensory modalities people use to learn information.

Visual learners prefer information that's presented in graphical forms, they learn by seeing things and they think in pictures. **Auditory** learners prefer information to be heard or spoken because they learn by hearing sounds and listening to voices and also by hearing themselves saying things. They favor discussions because through listening and speaking they learn new things, sometimes by repeating the same things or questions over again. The **Read/Write** category of learners prefers information displayed as words, they learn by reading and writing and they tend to prefer reading and taking notes. The **Kinesthetic** learners are those who like to try with their own hands, they have a high preference for their own personal experience and not the experience of others. These learners are highly motivated in meaningful topics with more value to their experiences (Table 13).

	Visual	**Auditory**	**Read/Write**	**Kinesthetic**
Information Form:	Graphical	Heard/Spoken	Words	Experience
Learn by:	Seeing/Visualizing	Listening/Speaking	Reading/Writing	Experiencing
Think in:	Pictures	Discussions	Writing	Doing
Preference:	Charts, Graphs & Diagrams Symbols, Shapes, & Patterns Handouts, Maps & Hierarchies	Lectures & tapes Speaking & Group discussions Radio & Phone conversations Web-chat & Emails	Reading & note-taking PowerPoint Internet & Diaries Dictionaries & Wordlists Words, Quotes & Lists	Hands-on experience Tactile activities Personal experiences Real Examples Practice & Simulation Case Studies

Table 13 – The VARK Model (Fleming, 1992)

Learning Style Inventory

Kolb (1984) suggest an approach to learning based on learning experiences and the way the learners reflect on learning itself. The learning experience is based on concrete experiences, which is related to the practice of learning while abstract conceptualization is when the learner is thinking and analyzing what is being learned. Furthermore Kolb (1984) argues that learning could be maximized by either actively experimenting where the learner is involved in the experience of learning or the learner might assume a passive role in learning by merely observing the experience and reflecting on it and this is labeled as a reflective observation.

What emerges from Kolb's (1984) learning theory is a two by two matrix which produces four quadrants of how learners perceive information either concrete or abstract, or by how the learner process information in terms of being active or reflective (Table 12).

	Concrete Experiences		
Active Experimentation	**Accommodators**	**Divergers**	Reflective Observation
	Convergers	**Assimilators**	
	Abstract Conceptualization		

Figure 12 – Learning Style Inventory (Kolb, 1984)

The **accommodators** are known to be people-oriented; they rely on feelings more than logical analysis and are intuitive in nature. They tend to rely on other people's analysis rather than their own. Therefore, they are more comfortable in working as part of a team where they can take initiative and work towards a concrete goal. However, accommodators are keen to engage in practical experiences where they can experiment and test their capabilities.

Divergers are great observers who take interest in people, different perspectives and new experiences, therefore, they favor working in groups. They gather information, use imagination and seek to solve problems where they rely on brainstorming and consider different viewpoints

to deal with situations. They are sensitive in nature; hence it is essential to provide them with feedback where they can reflect on, in order to learn.

Convergers are logical thinkers who prefer to learn through solving problems and engaging in technical tasks. They are motivated to find solutions to practical issues where they can best implement their learning. Yet, they are not too keen about working with other people and engaging in interpersonal issues.

The **assimilators** are patient learners who like to engage in abstract modeling and organizing information in logical format. Therefore, they way information is presented and organized is extremely important so they can reflect on it and explore it for analytical purposes. These learners do not prefer to work in a group, but favor working on concepts and models more.

The Learning Styles Model

Based on the Kolb's (1984) Learning Style Inventory, the Honey-Mumford learning style model sought to apply the concept on professional and organizational settings. The four aspects of the model are detailed below.

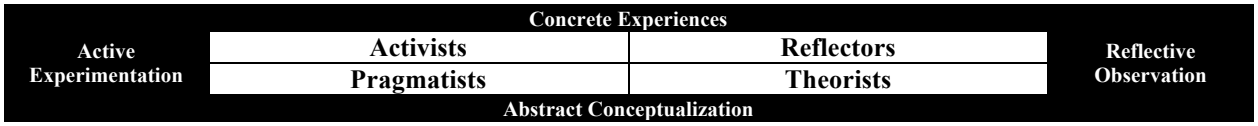

Figure 13 – Learning Style Model (Honey-Mumford, 1982)

Activists are excited to learn new things and from new experiences, these learners favor to do things and compete in solving problems. They are not shy to jump into activities and exhibit an open-mindset while working in practical things and not theories.

Reflectors are observers, who prefer to watch, think then make judgments. These learners seek collect as much information as possible for they value decisions based on collecting data that is appropriate for the context.

Theorists seek to learn about the theories first, and then take a step-by-step approach to problem solving. They are into synthesizing that is based on understanding the big pictures from the models and concept with enough facts to learn better.

Pragmatists would like to apply what they have learned by experimenting the theories into practical accounts. They do enjoy fieldwork that allows trying out the concepts they learn and see how it all manifests in reality.

Individual Learning Preferences Continuum

The Felder-Silverman Model explores the learner's personality to study individual learning preferences, the framework suggests four classes of how information is perceived, presented, processed and organized in relation to a continuum of preferences organized in terms of sensing or intuitive, visual or verbal, active or reflective and sequential or global.

	Sensing	**Intuitive**
Perception:	How do learners prefer to perceive or take in information?	
	Visual	**Verbal**
Presentation:	How do learners prefer information to be presented?	
	Active	**Reflective**
Processing:	How do learners prefer to process information?	
	Sequential	**Global**
Organization:	How do learners prefer to organize and progress toward understanding information?	

Table 14 – Individual Learning Preferences Continuum (Felder- Silverman, 1988)

The first classification seeks to investigate the way learners prefer to perceive information where the **Sensing** learners prefer fact and procedures for concrete thinking while the **Intuitive** learners are more concerns in theories to derive meanings and conceptualize thinking around theories.

The second category concerns the preference of learners in terms of the presentation of information; the **Visual** learners prefer diagrams and representations and the Verbal learners are more interested in spoken explanation using words and verbal expressions.

The third class is about the processing of information where the **Active** learners are keener about trying out new things and working within a group. On the contrary, the **Reflective** learners would like to more clarity in terms of concepts and procedures, which allows them to think through what they are being presented with. These learners prefer more to work alone.

The last category is about the organization of information, which is essential for learners to understand it. The **Sequential** learners prefer incremental steps, which helps them, organize what they learn at their own pace. The **Global** learners are holistic thinkers who would like to see the big picture in what they are learner, which allows them to engage in system thinking.

The MBTI Model

The MBTI model could also be looked from a continuum standpoint consisting of four major categorizations. The first targets the level of energy of the learner and this is referring to life in general whether the person is an **Introvert**; one who has a high preference for being alone and is comfortable with their own ideas and would prefer to think of concepts and abstraction in their own manner. On the other end is the **Extravert**; a person who is more social and is energized to deal and work with others and comfortable to learn in a group' setting.

	Extraverts	**Introverts**
Energy:	Where do learners prefer to direct energy?	
	Sensors	**Intuitors**
Processing:	How do learners prefer to process information?	
	Thinkers	**Feelers**
Deciding:	How do learners prefer to make decisions?	
	Judgers	**Perceivers**
Organizing:	How do learners prefer to organize life?	

Table 15 – The Type Indicator (Myers-Briggs, 1995)

The second typology has to do with gathering and processing information where the **Sensing** learners are concerned with facts and use their senses in gathering information and making sense out of it, eventually seeking hands-on experiences. The **Intuition** learners however, favor to dive into concepts and investigate patterns and relationships in order to generate meaning and understanding of what they are learning.

The third classification looks into the different ways in which a learner tends to make decisions whether it's based on **Thinking** which is mostly based on using logic and deep thinking and looking for consistencies and reasoning. On the contrary, **Feelers** are less objective and are referring to what others have reached in terms of judgments and evaluations. Feelers are more likely to be emotional in decision-making and tend to use values and personal beliefs to come to decisions.

The last class is the one dealing with the way learners prefer to organize life and deal with their environment. **Judgers** are planners with agendas who could quickly settle for a decision after structuring facts that make sense to them even with incomplete data. **Perceivers**, however, tend to be more flexible and adaptable who would take more time to make decisions and they tend consider changing circumstances.

Commentary

The various models and frameworks that sought to take on the personality and experience perspective explored the preference for learning in terms of how the learner perceives information, processes it, presents it, organizes and understand it and uses it to make decisions. The same goes for how the learner would like others to conduct the same functions when sharing information with the learners. Again, the same goes for the personality and experience perspective as it does for the brain-dominance perspective; what is essential is to learn to integrate al these preferences and differences into an inclusive learning experience where the learners explore new ways and methods to develop as a learner and as a human being.

2.10 Assessment Types

Summative Vs. Formative

Extensive work has been produced to investigate contexts for the assessment of student learning. A significant contribution made by Forester (2009) points out the distinction between assessment purposes, in particular between summative assessments in other words assessments of learning which merely concern reporting students' levels of achievement in comparison to formative assessments which tends to make use of achievement data to improve teaching and learning, labeled 'assessment for learning' (Figure 14).

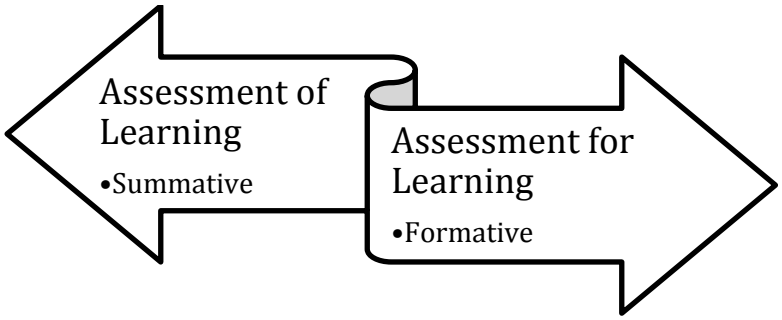

Figure 14 – Assessment of Student Learning, adapted from (Forester, 2009)

Interesting or Not?

Perhaps one of the most appropriate questions to ask ourselves as educators is the one speculated by Duke (2009) where he bluntly wondered '*Why Students Don't Learn What We Think We Teach?*' The extent to which Dr. Duke's question is legitimate or not might be of minor importance to those who consider teaching just like another job. However, if you are person of principles and consider teaching as a noble mission in life, chances are that you won't be able to get a good night sleep if you know that your students are not really learning what you have invested so much time to prepare for them.

Perhaps the problem resides with the educators; maybe the lesson's objectives are excellent. But, how about the approach? Are we impacting the learner's life? How much do we engage them into thinking and behaving differently after spending a long semester together! Well, perhaps it's our approach of the learning experience that is not right! Maybe we are not cutting it!

Duke (2009) suggests that what the students believe is interesting, maybe way different than that of the educator. If you engage your students to explore, it's definitely a whole different experience than when you label concepts for them. How about when you encourage students to experiment versus when you provide them with already made recipes to reach a particular conclusion! Duke (2009) adds that students today want to know how and why things work, versus what works and what doesn't. Why can't we be honest to ourselves – the educators – and admit that it is not interesting to know what works, instead of exploring and engaging students to explain to all of us and teach us how and why things work the way they do (Figure 15).

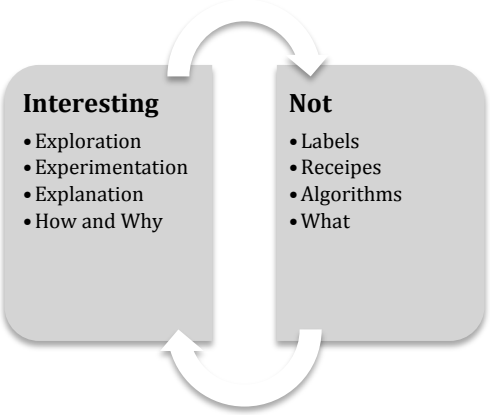

Figure 15 – Perspectives on Learning, Adapted from (Duke, 2009)

The main construct to draw from Duke's (2009) soul-searching question is whether educators are being part of a life changing experience for the learners, which engages them to live up their experiences and use their senses to appreciate the realities around them this is what he calls a 'Learner's construct'. In fact, it all starts with communicating expectations with students because

after all they want to know is what is going to be on the exam. As much as educators might not like this get to the point attitude, it could be made more interesting when starting with the end in mind and turning things around and maybe exploring what we want to achieve from the evaluations we intend to use, 'Write the assessments first' and communicate expectations accordingly. Consequently, if what educators claim to be there to do is to teach things to their learners, Duke's (2009) graphs, however, suggest that students tend to study mainly right before exams.

Commentary

Having discussed the formative versus the summative assessments and also the feedback of the learner of what is interesting to learn as well as the perspective of starting with the end in mind, it is worth to note that the process of assessing or evaluating the learning experience has to consider a systematic approach of a **diagnostic** assessment which is to take place prior to learning. Then, the **formative** assessment should take place during the learning and the **summative** assessment to be conducted after the learning and feedback is to be collected all along the learning process and experience.

CHAPTER 3

THE EGG CONCEPT TRAINING

The Egg Concept Training (ECT) is an intuitive training method for trainers to capitalize on the background of the learner and create a pleasant and effective training experience. The concept is inspired from the egg, which is besides a mother's milk provides essential nutrients to humans and a wide array of beings. The egg is interesting in terms of a number of characteristics including its anatomy, diversity and development. The egg requires care to nurture and grow to produce new beings in the future. On the contrary, if not handled with care the egg could spoil, break or simply fail to survive and vanish and never grow to see life.

3.1 Contemporary Challenges in Training

A number of challenges face trainers while conducting their jobs; learners are heterogeneous in many ways. And not everyone learns or is motivated the same way (Second part of the review). Chances are that learners have different personal and professional experiences. Therefore, learners see opportunities in different topics and seek to utilize for their development in the future. Eventually, the trainer is faced with different aptitudes, assumptions and interpretations of what constitutes effective and beneficial learning experiences (Table 16).

Reality	Challenges
1. Learners go through different personal and professional experiences	1. Integrate learner's experiences in their learning
2. Different learners value different things	2. Motivate the learner towards certain topics and issues
3. Learners differ in aptitude	3. Appreciate the leaner's assets & encourage new experiences
4. What constitutes an opportunity is different from leaner to learner	4. Find out what the learner values
5. Learners have preferences for a particular type of learning	5. Pinpoint effective individual and group learning methods
6. Diversity is a reality now	6. Transcend individual differences
7. Learner might have cognitive obstacles	7. Figure out how to overcome cognitive obstacles

Table 16 – Contemporary Challenges to Learning

An effective trainer does not a have chance to reach learning outcomes unless they identify with the realities of contemporary learning. It takes skills to transcend individual differences, appreciate the leaner's assets and encourage new experiences. It takes even greater skills to find out what the learner values and pinpoint effective learning methods. The trainer is to assume self-efficacy to overcome cognitive obstacles and motivate the learner towards certain topics and issues while integrating the learner's experiences throughout the learning journey.

3.2 What does the Egg have to do with training?

The egg anatomy serves as an inspiration to trainers in terms of providing queues to all of the challenges mentioned previously. The trainer, however, should be sensitive to a number of issues and concerns but most importantly seven areas that make up contemporary challenges to learning today.

Maturity	Interest	Aptitude	Opportunity	Acquisition	Diversity	Cognition

Figure 16 – Learner's Challenges

In a classroom or any training facility, a number of learners are grouped in some fashion and look forward to gain some knowledge, skills and new tools. But the task of the trainer is difficult if a group of learners is being looked at in a holistic fashion, and not as individuals with particular needs, wants and desires. While considering one person at a time, the anatomy of an egg addresses all of the challenges (Figure 17).

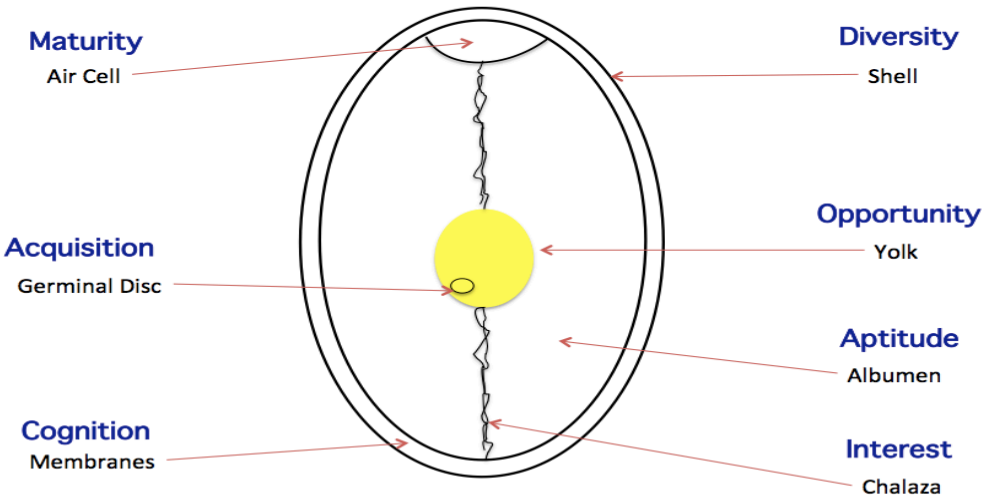

Figure 17 – The Egg Anatomy matches the challenges

The egg which is a source of life and the first home of many beings, hints to essential areas for survival; the Germanic Disc, Yolk, Chalaza, Albumen, Air Cell, Membranes and the Shell. If

looked at from a Learning-Training perspective, each element is significant to a fulfilled life or learning experience.

Air Cell - Maturity

The air cell present in the egg is an indicator of its age and it could be seen as the personal and professional experiences of the learner and the various assumptions held and constructed throughout the years. The various characteristics of the air cell could be translated into what could describe the learner's assumptions, and environmental influences (Table 17).

Air Cell	Learner	Trainer
Pocket of air formed at large end of egg	Holds various assumptions	Uncover some of the assumptions
Caused by contraction of the contents during cooling after laying	Environmental influences	Demonstrate interest in the environment (background)
Increases in size as egg ages *(American Egg Board, 2012)*	Has gone through different experiences (Personal & Professional)	Trigger the experiences to use for learning purposes

Table 17 – The Air Cell is a sign of maturity

The trainer's job is to uncover as much assumptions as possible as it would help identify some of the expectations and perspectives. Furthermore, by demonstrating interest in the background of the learner and their particular environment, the trainer would be able to trigger the experiences and eventually integrate them for learning purposes.

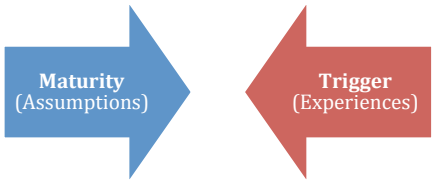

Figure 18 – Trainer's role to address the learner's maturity

A learner-centered approach should motivate the learner by rendering the learning experience around what the learner knows, has experienced and what the learner appreciates in an attempt to gradually move to what the learner wants, needs and has to learn.

Chalaza - Interest

The Chalaza of the egg is what holds the yolk (The Opportunity Spot) and it is also and indicator of the freshness of the egg. The freshness in the context of the learner is what could be seen as the motivation and the product of (Desire and Dedication) to learn and be engaged in the process.

Chalaza	Learner	Trainer
Twisted, cord-like strands of egg white	Freshness is an indication of Motivation which is basically a product of (Desire & Dedication)	Interaction is necessary to stimulate the learner's desire to be willing and able to learn
Anchor yolk in center of egg	The reasons why the learner is here	Understand the motivation to use in examples, cases and materials
Prominent chalazae indicate freshness and is not impacted by change (cooking or beating) *(American Egg Board, 2012)*	The motivation of the learner towards certain topics and issues	Encourage the learner's contribution in topics, issues and development of ideas (Involvement results in engagement)

Table 18 – The Chalaza is an indicator of interest

The trainer's role is to seek to understand the motivation of the learner and attempt to use it through the examples, cases and materials being employed. The trainer is here to encourage the learner's contribution in topics, issues and development of ideas, which is to create a sense of involvement in the learning process, which would eventually result in engagement.

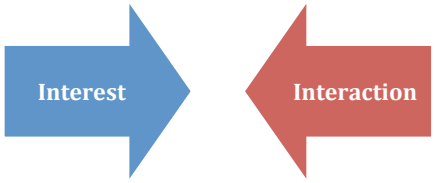

Figure 19 – Trainer's role to stimulate interest

Healthy and positive interaction is necessary to stimulate the learner's desire to be willing and able to learn and to create a safe environment to participate, contribute and have a say in the learning process.

Albumen - Aptitude

The Albumen consumes the majority of the space within the egg; it contains some protein and suggests some aspects of the condition of the egg. The Albumen could be compared to the learner's aptitude and could also be seen as the combination of the learner's knowledge, skills and experience.

Albumen	Learner	Trainer
Nearest to the shell Spreads around thick white of high-quality egg	The learner's aptitude	Appreciate the leaner's assets & encourage new experiences
Major source of egg ribo avin and protein. Stands higher and spreads less than thin white in higher-grade eggs	The combination of knowledge, skills and experience	Put into perspective and seek opportunities (Learner-Centered)
Thins and becomes indistinguishable from thin white in lower-grade eggs *(American Egg Board, 2012)*	The aptitude, knowledge, skills and experience is all mixed	Help organize to utilize for best performance

Table 19 – The Albumen could be compared to the aptitude of the learner

The trainer's role is to engage in a Learner-Centered approach and seek to organize learner's knowledge, skills and experience and seek to put all into perspective and seek opportunities for development. The effective trainer is the one who would appreciate the leaner's assets and encourage new experiences in order to utilize it all for best performance

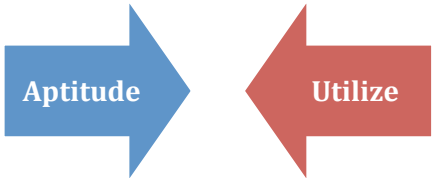

Figure 20 – Trainer's role to utilize aptitude

A learner's aptitude is not always clear and visible to the learners' themselves, therefore, it would take some patience and skills to uncover and utilize.

Yolk - Opportunity

Various characteristics of the yolk are interesting, its bright yellow color and also its vitamins, minerals and fat which constitutes half of the protein in the egg. In the context of a learner, it is the bright side and the sources of opportunity in their personality.

Yolk	Learner	Trainer
Yellow portion of egg	Every learner has a bright side	Identify what the learn does best
Color varies with feed of the hen, but doesn't indicate nutritive content	Some learner's do not know their strengths	Capitalize on the learner's strengths
Major source of egg vitamins, minerals and fat and about half of the protein *(American Egg Board, 2012)*	Opportunity exists in the bright side!	Motivate the learner to find their passion!

Table 20 – The Yolk is a hint for opportunity

The trainer is to remain positive all the times believing that their learners have a bright side, the job is to identify what each learner does best and capitalize on their strengths and see opportunities in them. The trainer should be optimistic and flexible enough to learn about their learners and motivate them to seek their passion and remain positive all the times.

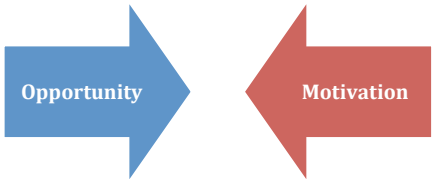

Figure 21 – Trainer's role to identify opportunity

The commitment to come for training and feeling restricted to a particular time and place, should be rewarded by value which is translated in the motivation to learn and acquire new knowledge and skills and at the same time feeling valued and appreciated in what the learner already does best.

Germinal Disc - Acquisition

The Germinal Disc is an interesting spot on the yolk of the egg; it serves as the entrance point for the sperm to enter the yolk and cause fertilization. Such process is interesting to compare to the acquisition of knowledge by the learner. After all, learners have a preference for a particular type of learning and chances are that they are not aware of it.

Germinal Disc	Learner	Trainer
The entrance of the latebra, the channel leading to the center of the yolk.	Has preference for a particular type of learning	Locate the soft spot, use the right channel & means to transmit information and experience
The germinal disc is barely noticeable as a slight depression on the surface of the yolk.	Leaner might not know how they acquire knowledge and experience	Experiment to identify effective methods for your audience
If an egg is fertilized, sperm enter through the germinal disc, travel to the yolk center & a chick embryo starts to form. *(American Egg Board, 2012)*	Pinpointing the learner's skills facilitates the training process	Everyone can learn depending on the approach used. Make it fun and relevant!

Table 21 – The Germinal Disc is a hint for acquisition

The trainer should strive to locate the soft spot and use the right channel and means to transmit information and experience to the learner. When the trainer truly believes that everyone can learn depending on the approach used, the trainer should hold a belief that there needs to be some effort of experimenting in order to identify effective methods for the particular audience they are working with.

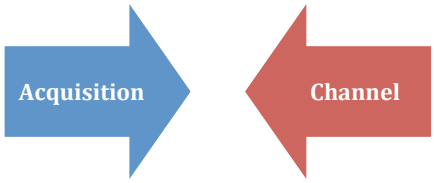

Figure 22 – Trainer's role to enhance acquisition

Who says that learning can't be full of creativity and fun while remaining relevant and interesting. Hence, being able to locate the soft spot, renders the job of the trainer much more easier and makes the experience of the learner more pleasant.

Shell - Diversity

The shell is what is observable from the outside, and it determines the kind of the egg but not necessarily the quality of the egg. The same idea applies to the learner; the outside appearance does not determine the quality and value of the learner. It is only through interaction when the learner could be valued and appreciated.

Shell	Learner	Trainer
Outer covering of egg, composed largely of calcium carbonate	Different personalities and characters	Flexibility wins, accommodate to get buy-in and transfer knowledge
May be white, brown or even blue-green depending on breed of chicken	Diverse personal & professional backgrounds	Appreciate & unite purpose around learning and developing skills & competencies
Color does not affect egg quality, avor, cooking characteristics, nutritive value or shell thickness *(American Egg Board, 2012)*	Diversity is not an obstacle to learning & development and the quality of it all.	Diversity is an asset not a liability. Capitalize on it!

Table 22 – The Shell is a sign of diversity

It would not be fair to hold biases or any assumptions on learners based on their age, gender or ethnic backgrounds. The trainer is to appreciate the different personalities and characters in the group and learn to welcome diversity and what it entails. Being flexible and accommodating would ensure getting the buy-in, which in turn facilitates the transfer of knowledge.

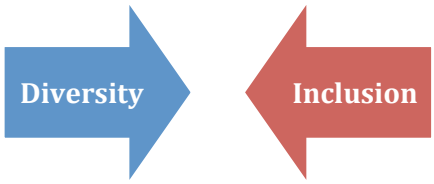

Figure 23 – Trainer's role to address diversity

When regarded as an asset, diversity becomes richness of the group and it could be capitalized on to unite the purpose of the group around learning and developing skills and competencies which must remain the ultimate purpose of the learning encounter and not to dictate how we should all be the same. As the Arabic saying goes; 'those who see people the same, there is no cure to their madness'. The message of the saying is that people should be treated the same way

but appreciated for their particularities. Every learner is important, and each individual is an asset to the group.

Shell Membranes - Cognition

The Shell Membranes of an egg surround the albumen and provides a protective barrier against bacteria and it also becomes more fragile as the egg ages. This could be seen as the cognition of the learner who might experience or form some boundaries to learning. Some of these learning challenges could be attributed to internal as much as external factors; it could also be the case that the learner might not have enough self-confidence to learn particular topics and subjects.

Shell Membranes	Learner	Trainer
Two membranes - inner and outer shell membranes - surround the albumen	There might be boundaries to learning	Intellectual stimulation is key to challenge the status quo
Provide protective barrier against bacterial penetration. Air cell forms between these two membranes	Learner might have cognitive obstacles	Aim to uncover obstacles to learning
The vitelline membrane is weakest at the germinal disc and tends to become more fragile as the egg ages. *(American Egg Board, 2012)*	Learners are fragile could lose confidence along the learning process	Encourage the learner to try creative ways of learning. Make it fun!

Table 23 – Shell Membranes could be compared to learner's cognition

The aim of an effective trainer is to uncover some of these obstacles to learning and help the learner gain some self-confidence to overcome what might be imaginary challenges. This is a situation where the learner has to be motivated enough to challenge the assumptions that there exist obstacles to learning and the building step toward achieving such motivation is to be intellectually stimulated.

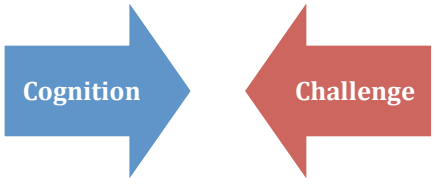

Figure 24 – Trainer's role to encourage cognition

A confident trainer is the one who would be passionate enough and pass on positive energy to challenge the status quo and engage the learner in self-development and integrate creative ways to face cognitive challenges.

3.3 The Pillars of Success!

From a holistic standpoint, the seven essential components in an egg's anatomy and their associated learning challenges make up the fundamental components of the Egg Concept Principles in addition to three additional elements namely, learner's satisfaction of the training session, their evaluation of the effectiveness of the trainer as well as recommendation of the trainer (Table 24).

Principles	Learner	Trainer
MT	**Maturity**	**Trigger**
II	**Interest**	**Interact**
AU	**Aptitude**	**Utilize**
OM	**Opportunity**	**Motivate**
AC	**Acquisition**	**Channel**
DI	**Diversity**	**Include**
CC	**Cognition**	**Challenge**
ST	Satisfaction with training session	
AP	Evaluation of the effectiveness of the materials and methods used during training	
RE	Recommendation of the trainer	

Table 24 – The Pillars of Success

The most effective trainer is the one who understands where the learner stands at each of the ten pillars of the EGG Concept and is able to capitalize on each to create the most adequate environment for learning and developing skills further. A positive learning experience should tailor to the ten principles and generate favorable evaluation of the effectiveness of the materials and methods used and eventually suggest a recommendation for the trainer.

3.4 The ECT Process

The ECT' (Egg Concept Training) pillars of success make up the ECT process in a systematic fashion where the learning experience is broken down into major phases organized in a countdown formation of 4-3-2-1. The countdown starts out with the input, which is composed of four principles (*Maturity, Interest, Aptitude and Opportunity*), the process includes three principles (*Acquisition, Diversity and Cognition*) and the output is composed of two principles (*Effectiveness and Satisfaction*) and the feedback is the recommendation for the trainer (Figure 25).

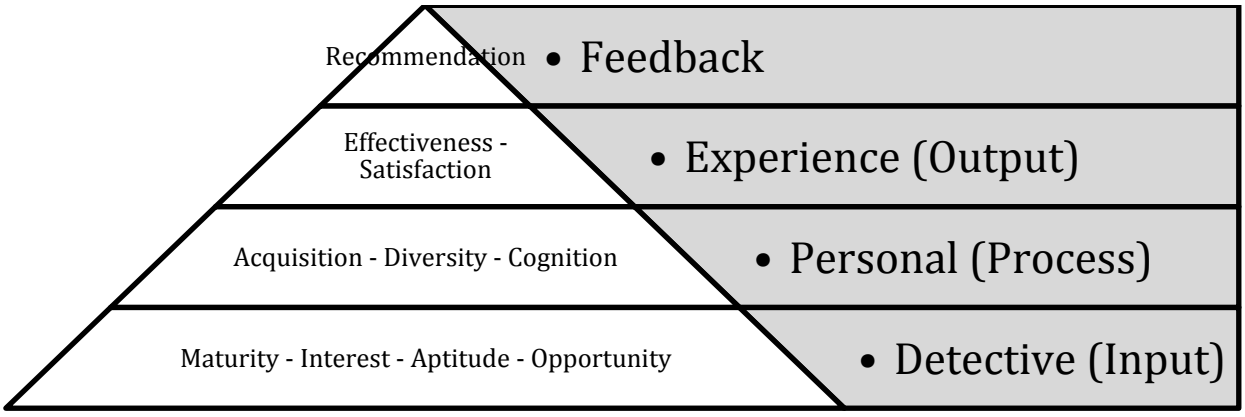

Figure 25 – The ECT Process (The Countdown 4-3-2-1)

The Countdown (4-3-2-1)

The ECT process is generic for various environments and inclusive of the ECT principles, which allow the trainer's creativity to emerge at any particular time while training any group of learners. The Input-Process-Output phases are labeled the (*Detective*, *Personal* and *Experience*) phases and each of which includes the associated principles and a number of activities where the trainer applies the principles and establishes the ECT culture (Table 25).

Phases	Principles	Trainer's Role	Activities	Procedures
Detective	Maturity	Trigger	Navigation	Allow yourself to learn about the audience' characteristics
	Interest	Interact	Navigation	Measure the extent to which the audience is interested in the topic
	Aptitude	Utilize	Exploration	Use learner's experiences to introduce appropriate theories, knowledge and skills
	Opportunity	Motivate	Exploration	Share your own story, let the learners share theirs, be positive
Personal	Acquisition	Channel	Evaluation	Locate the soft spot, use the right channel & means to transmit information and experiences
	Diversity	Include	Role Play	Value differences and include everyone
	Cognition	Challenge	Role Play	Prompt for examples to make sure everyone is on the same wavelength
Experience	Effectiveness	Be Effective	Self-Evaluation	Pick relevant, concise and practical materials and use efficient methods
	Satisfaction	Satisfy	Reflection	A pleasant experience is what the learner is here for
Feedback	Recommendation	Be Special	Feedback	Seek the learner's recommendation
			Recommendation	Provide valuable and useful material to be recommended

Table 25 – The Essentials

The creative aspects of the ECT process is reflected in the type and content of activities being used in a training session as well as the topics covered and the way diversity is approached and integrated into the learning materials.

The Detective Phase

The input of any system or environment is the most critical of all the subsequent events and interactions that take place later on. Quality inputs suggest a quality-learning environment with healthy interactions and effective learning outcomes. Twenty-four questions mark the detective phase; of course these questions are not to be asked all at once and not in one session. The trainer is to prepare for the training sessions using as many questions as possible, and that's depending on how much information is available about the audience. And the remaining questions are to be

asked randomly to the audience, and other questions will be asked directly to some individuals in the audience (Table 26).

Qs	Maturity	Interest	Aptitude	Opportunity
Who	Who is the learner?	Who is interested in the topic?	Who has experience with the topic?	Who is going to benefit from the topic?
What	What is the learner's relationship to the topic?	What is the learner's attitude and perception of the topic?	What do they know about the topic?	What should the learner know about the topic?
When	When did the learn experience the topic?	When did the learner get interested in the topic?	When did the learner needed to know about the topic?	When would the learner utilize the topic?
Where	Where did the learn experience the topic?	Where did the learner become interested in the topic?	Where did the learner come in contact with the topic?	Where would the learner utilize the topic?
Why	Why should the learn experience the topic?	Why should the learner be interested in the topic?	Where did the learner experience the topic?	Why would the topic be useful to the learner?
How	How should the learn experience the topic?	How much is the learner interested in the topic?	How much experience does the learner have with the topic?	How valuable is the topic to the learner?

Table 26 – The Detective Phase

An effective trainer is the one who would seek answers to most of the questions prior to training during training and even after the training session in order to improve future performance. Allowing for an insightful understanding of the audience' characteristics to ensure a successful learning experience.

The Personal Phase

As the name suggests, the personal phase is critical to the operational aspect of the learning process. During this phase the trainer focuses a great deal on the learner's capacity of acquiring new knowledge, skills and attitudes towards the topics being covered. Eighteen questions suggest to uncover the way the learner learns and any potential cognitive difficulties a learner might encounter. A passionate trainer is the one who is able and willing to walk the learner through this phase while locating areas of difficulties and areas to be challenged in order to attain the learning objectives (Table 27).

Qs	Acquisition	Diversity	Cognition
Who	Who is or is not able to attain the learning outcomes?	Who has experience with diversity in the topic?	Who is challenged by the topic?
What	What is or not being attained?	What is the value of diversity in the topic?	What is challenging to learn about the topic?
When	When is the learner ready to attain the learning outcomes?	When is diversity experienced in the topic?	When to intellectually stimulated the learner?
Where	Where is the learner making or not making progress?	Where is diversity experienced in the topic?	Where is the learner intellectually stimulated?
Why	Why is the learner making or not making progress?	Why should diversity be included in the topic?	Why should the learner be intellectually stimulated?
How	How is the learner making or not making progress?	How can diversity be approached in the topic?	How much is a healthy challenge?

Table 27 – The Personal Phase

Fundamental to this phase is the aspect of diversity as it applies to the learner's background and also how it should and would be covered during the learning process. Diversity includes opinions and a range of assumptions the learner might have about topics and also the ones the learner might form as a result of going through the learning process. The trainer, therefore, is asked to be very flexible and integrates diversity as part of the content and approach to learning.

The Experience Phase

Learning is an experience itself and its lived, felt and judged as an output of the learning journey. As much as the trainer might prefer to have the same experience for all the learners, it might not be achievable and feasible all the times. Hence, its suggested that the trainer measures the extent to which the learning experience has been effective in terms of the materials and methods employed. Furthermore, the experience phase serves as a learning experience for the trainers themselves to figure out the impact of their efforts and the added value generated after going through the whole process (Table 28).

Qs	Effectiveness	Satisfaction
Who	Who is or is not receptive to the materials and methods used?	Who is or is not satisfied with the experience?
What	What materials and methods are effective?	What is or is not making the experience satisfactory?
When	When is the best time to use the materials and methods?	When would the experience be satisfactory?
Where	Where to use the materials and methods?	Where would the experience be satisfactory?
Why	Why would the materials and methods be effective?	Why should the experience be satisfactory?
How	How can the materials and methods be effective?	How can the experience be satisfactory?

Table 28 – The Experience Phase

Dedicated trainers are essentially consumed with satisfying their learners, they should always keep in mind that the learner must feel that there has been some impact on their personal and professional development as a result of learning. The six satisfaction questions should guide the trainer during the planning, organizing and when conducting the training. For one, the questions help pinpoint areas of improvement and development and also to better plan for future training sessions.

The Feedback Phase

The feedback phase is essential for the trainer to learn from their overall performance and find out where they stand in terms of their profession. The feedback generated after the training would equip the trainer with valuable insights on reasons why the learner would recommend the trainer and what the learner judged to be essential to recommend the trainer (Table 29).

Qs	Recommendation
Who	Who is or is not recommending the trainer?
What	What is or is not making the learner recommend the trainer?
When	When should the trainer be recommended?
Where	Where should the trainer be recommended?
Why	Why should the trainer be recommended?
How	How should the trainer be recommended?

Table 29 – The Feedback (Recommendation) Phase

The recommendation output is also useful for the organizations employing the trainer in ways where trainers would be trained to improve and develop and also their organizations would accumulate effective and proficient human resources.

3.5 The ECT in Action – Teaching Leadership

The topic is Leadership; the subset is trait versus process theories of leadership. At the end of the session the audience is supposed to learn what leadership means and how it is differentiated from trait to process types of leadership. The topic will be used to transfer to another type of leadership, which is Transactional versus Transformational leadership. Eventually, learners will gain skills to differentiate the difference between management and leadership and find the common aspects of both. Each of the phases that will follow will include a list of activities with details of examples of how to introduce a topic and engage in an interactive ECT process.

The Detective Phase – In Action

The very first thing to remember is to keep a smile on while the audience regain their seats, the trainer is to scan through the audience and carefully watch for their chosen seats and who is sitting next to who and what is the audience is made of. All of this would serve for the visual memory of the trainer to remember names, and a range of characteristics of individuals within the group.

Activity 1 – Navigation (Introduction to Leadership)

The navigation activity aims to set the stage for further lessons regarding the leadership topic, here the trainer is introducing a new topic or at least using a new approach to introducing a topic. This activity is extremely important to get as much involvement and interest from the learner as possible, as well as to get the learner more comfortable sharing opinions and working as part of a group. Success in this activity is very much related to the motivation of the learner in the topic and the interaction that takes place all along the activity.

Objective: Introduction to Leadership	
Trainer	**Learners' Feedback**
Welcome everyone; today we are going to discover a concept, which is very important to our personal and professional lives – Leadership!	Learners are waiting for more details!
Does anyone know what Leadership means?	Learners are formulating a concept.
PAUSE	Depending on feedback, either allow more time or prompt for answers.
Get as many answers as possible until the room is quiet again	Learners share and listen to each other's answers.
Based on each other's concept of leadership. Do we have the same perception of leadership?	Allow learners to share opinions
Get as many answers as possible until the room is quiet again	Learners share and listen to each other's answers.
Now, I want you to pick a person you have dealt with in the past, either at a personal or professional level. This person you qualify as a leader, they have probably influenced, inspired or marked you in several ways.	Learners are thinking and remembering events in the past and the quality of relationships in their lives
Allow 10 minutes of thinking	This is an individual activity, allow enough time for each person
After the learner picks a leader, ask them what was so special about their leader?	Learners are engaged
Take notes of what learners believes was so special about their chosen leader.	Learners share their leader's qualities
Take advantage of the situation and engage the group in a discussion of whether it was more about the personality, behavior, motivation or support? Or anything else?	Learners share opinions
Don't ignore the fact that some members of the group might get emotional describing some of their experiences. Some might drop tears, some might daydream and a range of responses might surprise you.	N.B: some learners might get emotional, Show empathy but keep the momentum going.
The discussion should serve to encourage everyone to participate, consider diverse opinions and get the learner more comfortable with their story and more interested in learning from others too.	
At this stage, you are to describe your own experience with a person who has influenced or inspired you.	Learners get a hands-on experience with a leadership gesture!
The purpose is to share your story as well and connect with learners at a personal level just like they have done	Make sure your story identifies with the majority of the characteristics the learner described previously.
Right after this stage, you are ready to introduce a theory (Trait Vs. Process) of leadership	

Table 30 – Activity 1: Navigation

The outcome of the navigation activity is to successfully introduce a new topic and engage the learner in an activity where the learner is consumed by the topic rather than being passive and receptive of what the trainer is sharing. The trainer is able to learn a great deal about the learner in terms of their language abilities, communication, interpersonal skills and a number of aspects

pertinent to the EC principles. The navigation activity is breaking the ice in a much useful, effective and efficient manner.

Activity 2 – Exploration (Trait Vs. Process Leadership)

After going through the navigation activity, the trainer now is ready to explore the concept from a theoretical perspective; first the trainer is prompting the learners to devise a definition for the concept in this case 'Leadership'. By doing so, the trainer is engaging the learner to refer back to their experiences with the topic as well as the navigation activity. The trainer prompts the learners to notice similarities and differences before suggesting a practical and conclusive definition of leadership. Then the learners get to groups again but this time in order to explain the definition and discuss its essential components. Right after this stage, the learners feel they have feedback to provide and a discussion seems easy to start and necessary to exchange opinions and perspectives. The trainer is going to capitalize on the situation and transit to introducing a theory after the discussion, in order to learn from it, compare it and explore different perspectives for the same topics, 'Leadership' in this case (Table 31).

Objective: Understand Trait Vs. Process Leadership	
Trainer	**Learners' Feedback**
Now that we all have shared opinions about a person that we qualify as a leader, don't you think we should define what leadership is?	Learners are waiting for more details!
Let's work in groups and try to create a definition for leadership	Learners are getting into groups and thinking together.
PAUSE	Learners are formulating a definition.
Let's hear your definitions	Depending on feedback, either allow more time or prompt for answers.
Wonderful, can we see any agreements between the groups? What seems to be the emerging concepts associated with leadership?	Learners share and listen to each other's answers.
After discussing the different definitions – move on to a basic definition of leadership.	
Time to share a simple and concise definition of leadership. Project the following definition on the board: "Leadership is a process whereby an individual influences a group of individuals to achieve a common goal." (Northouse, 2007)	Let the learner read the definition, have them analyze it word by word.
Ask the audience to split into groups of 3 or 4 individuals and the aim is to explain the definition	Learner work in-group to analyze the components of the definition.
Engage in a short discussion: so what are the essential components of leadership according to this definition?	Learners share and listen to each other's answers.
Display the components central to the phenomenon of Leadership on the projector as follows: **Leadership** • Is a process • Involves influence • Occurs within a group context • Involves goal attainment **Leaders** • Are not above followers • Are not better than followers • Rather, an interactive relationship with followers **Ask leaners to explain terms and concepts**	Learners are actively involved in discussions and analysis of concepts.
Engage in a discussion of the components of the definition, you could pick 'Influence' and discuss its sources.	Active discussions and involvement.
Now, let's explore different views of leadership	Learners are looking forward to the next step.
At this stage, it is recommended to make use of a figure to display the differences between Trait and Process leadership (Figure 26).	Learners are looking at a figure and trying to make sense of it.
Ask the group to attempt to explain the figure.	Learners are conceptualizing.
Make sure to prompt for differences between the Trait and Process Leadership. Ask about the main suggestion by each type of leadership	Learners are analyzing.
Ask if the learner's chosen leader (Activity 1) had a style that closely matches one of the two types. What was the situation? Where you assuming a role that was more like a leader or a follower? Where did the influence reside; in the person or the process?	Learners invoke experiences and engage in critical thinking.

Table 31 – Activity 2: Exploration

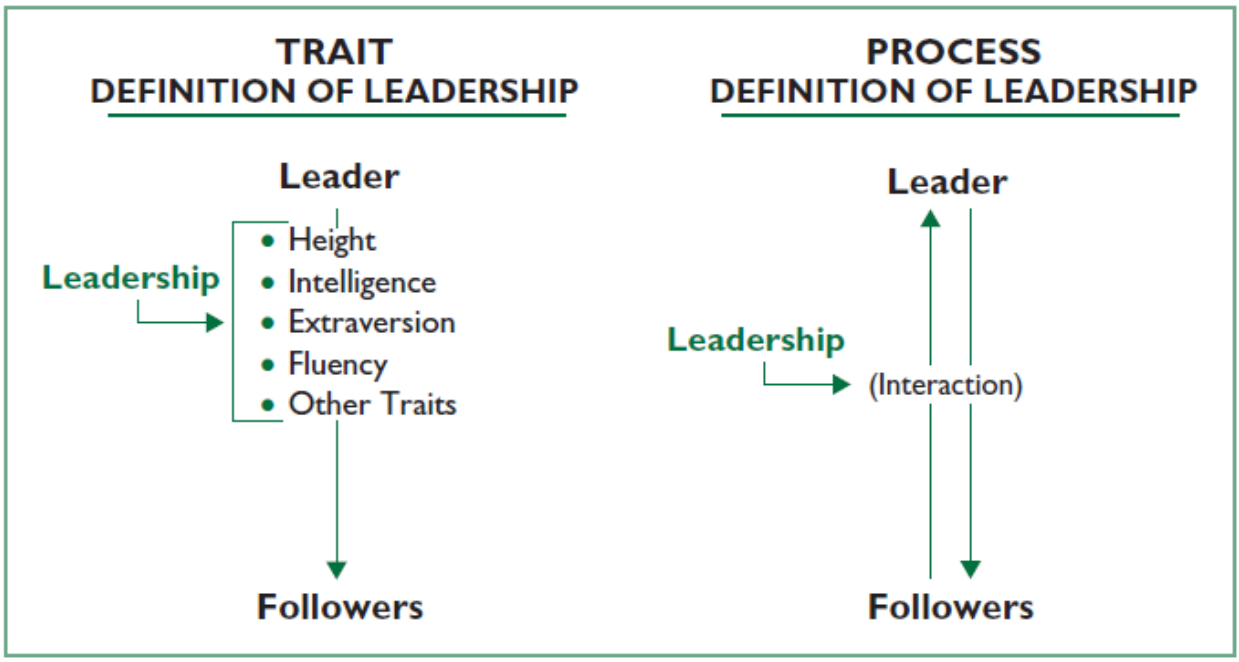

Figure 26 – Different Views of Leadership (Kotter, 1990)

The Detective Phase – Outcome

The detective phase is a chance to learn so much about the 'Maturity' of the learner in terms of the set of questions listed under the detective phase (Table 26). The value of this phase extends to learning more about the interest, aptitude of the learner as well as how much opportunity the learner should attach to the topic.

The learning outcomes from the activity could practically be achieved while making use of the set of questions associated with the detective phase. Given the activity conducted during training, the majority if not all of the questions have been answered in way or another either directly or indirectly.

The trainer who is aware of the ECT is actively gathering insights about the learner during the Detective phase which facilitates interaction and easier flow of knowledge which is shared through active learning and user-centered atmosphere. The learner feels appreciated along the process and is able to share past personal and professional experiences. The trainer is able to

locate the interest of the learners and is utilizing their aptitude in ways where they can see opportunity in the topic and ways to make it practical in the future.

The Personal Phase – In Action

Activity 3 – Evaluation (Transformational Vs. Transactional Leadership)

The evaluation phase comes, as a much-advanced activity in the ECT, during this phase the learner is engaging in critical thinking and evaluation of live performances or actual cases. The trainer could for example introduce short clips or documentaries or speeches for this example. In the evaluation activity, the trainer is playing the first video of how Obama gave a speech that many judged to be the reason why he became president. The learner gets a chance to watch the speech and is encouraged to take notes of particular segments of the speech, the arguments used and also the body language of a former political leader. The trainer prompts the learner to discuss the techniques employed during the speech and to critically pinpoint the use of influence in the speech and its delivery. The trainer engages the learners in a discussion, which aims to evaluate whether Obama is a leader and if so, what kind of leadership he is portraying during his speech. The trainer makes use of the opportunity and introduces a different type of leadership but this time an opposing style; Trump's speech which made him president.

Objective: Evaluate Transformational Vs. Transactional Leadership	
Trainer	**Learners' Feedback**
We have discussed influence as an important component of leadership, should we explore how some famous political leaders use influence in their speeches.	Learners are waiting for more details!
Now, we are going to watch the speech that made Obama president: https://www.youtube.com/watch?v=OFPwDe22CoY	Learners are watching the video and taking notes
After the video is done, ask: What are some of the techniques that Obama is making use of in his speech?	Learners provide answers
Ask: is Obama a leader? Why and why not?	Class discussion
Ask: are all leaders the same? Do they use the same type of influence?	Even more discussions
It's time to discuss the difference between Transactional and Transformational leadership (Table 33).	Learners learn difference between the two types of leadership.
Ask: can we state some famous Transactional and Transformational leaders.	Learners associate theories to characters.
Now it is time to watch the speech that made Trump president: https://www.youtube.com/watch?v=UpoecwpsBFk	Learners are excited to learn a different style of leadership.
Does Trump portray any characteristics of transactional leaders? Why or why not?	Learners engage in critical thinking.
Closing discussion	Class discussion

Table 32 – Activity 3: Evaluation

The discussions of the evaluation phase serve for many purposes amongst which to empower the learner to evaluate and dissect aspects of leadership in ways where the learner is able to clearly pinpoint similarities or differences and form some opinions and synthesis of major aspects of transformational versus transactional leadership as listed in the table below.

Transactional	Transformational
Leaders who guide or motivate their followers toward established goals by clarifying role and task requirements.	Leaders who inspire followers to transcend their own self-interests for the good of the organization and are capable of having a profound and extraordinary effect on followers.

Table 33 – Transactional Vs. Transformational Leadership (Kotter, 1990)

Activity 4 – Role Play (Experience Leadership)

The role-play activity is an opportunity provided for learners to assume roles of leadership where by choice, learners are observed during this activity in terms of how they would emerge as leaders and portray some characteristics of leadership in live-classroom settings. The X and Y typologies are introduced to familiarize the learners with widely known categorizations of leaders. Accordingly, learners are encouraged to work in groups but are allowed to make their own decisions of who will emerge as a group' leader and also how the group wrote instructions to followers.

Objective: Experience Leader-Follower relationship	
Trainer	**Learners' Feedback**
Leadership research has produced various typologies; let's discover one interesting perspective. McGregor's (1960) X and Y theories (Figure 27).	Learners are even more interested in a new concept.
Explain the differences and play a video from YouTube about the two perspectives.	Learners are assimilating new perspectives.
Engage in a discussion of the two theories and ask the learner whether they identify with either one. Ask why and why not?	Class discussions.
Now that division has taken place, lets break into X and Y managers.	Learners split into groups of four, and have to choose either X or Y orientation.
Consider yourselves as X or Y managers; you are to write some instructions for your subordinates to perform a particular task.	The group collectively writes instructions as if they are all leaders
Are you done with the instructions! Now, decide on a group leader.	One member of the group emerges as a leader the rest are subordinates. This is a dilemma in the group.
Do not interfere with the groups on deciding a leader. Instead ask each group: How did you come to choose a leader?	Groups look for reasons!
The choice of a group leader is an interesting learning experience because some emerge as leaders, some are more influential than others and that is interesting to witness.	Learners experience the concept of influence through a real life example.
Share with the learners that it was interesting to see how some of them emerged as leaders and the rest as non-leaders.	Learners see the difference between leaders who are appointed and those that emerge from a group as leaders.
Discussion points: What assumptions did you put in mind while writing the instructions?	Discussions of the nature of instructions and tendency to be an X versus a Y leader
What are the motives that your subordinates might have?	Discussion of motives and assumptions.
What influenced your choices for an X or a Y manager?	Discussion of the orientation of X versus Y leadership.

Table 34 – Activity 4: Role Play

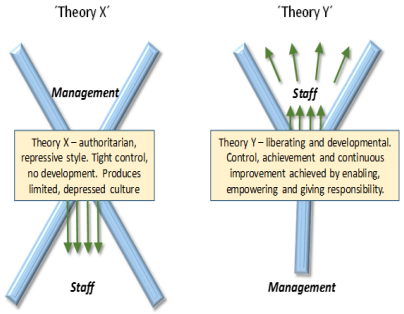

Figure 27 – X Versus Y Theories (McGregor, 1960).

The role play activity benefits the learner to experience how leadership is caused through interactions, influence and also sharing of common goals but most importantly the process through which a leader emerges from a group and represents the rest of the members.

The Personal Phase – Outcome

The personal phase allows the trainer to capitalize on the experience from the input phase and pinpoint critical learning aspects such as acquisition and the level on understanding of the topic. Now, the trainer feels more accustomed to the leaners and is able to investigate the capacity of the learners to acquire new knowledge and experiences, but most importantly to integrate diversity at the center of the experience. The trainer intentionally integrates everyone in the process and makes sure the learners refer to their diverse experiences with the topic.

As the trainer becomes even more familiar with the learners, it becomes safer to transition to intellectual stimulation where the trainer aims to challenge the learner's knowledge about the topic and suggests new ways and perspectives.

The Experience Phase – In Action

Activity 5 – Self-Evaluation (Performance)

The self-evaluation activity is critical for the learner to be able to assess their own performance and the extent to which they believed they were effective and also if they are satisfied with it (Table 28). The trainer prompts the learner to engage in an honest self-evaluation as well as a chance to demonstrate favorable opinions of other learners who were perceived by others as best performers.

Objective: Self-Evaluation	
Trainer	**Learners' Feedback**
Now that we have gone through a number of activities let's conduct a self-evaluation of what has taken place so far.	Learners are excited to engage in evaluating performance.
Ask some questions such as: How do you think you performed? Do you feel you have learned something useful? Any combination of questions from the 'Effectiveness' column is worth asking. (Table 28)	Self-centered learning and sense of independence is invoked
Make sure your asking as many learners as possible	None is left behind!
Ask some more questions, Who do you think did the best job? Whose stories were great? And Why do you think so?	Sharing opinions and admitting some were more influential than others. Sense of engagement in the learning process.
Allow for more discussions to take place and let learners learn from each other and provide positive feedback for each other.	Mutual learning.

Table 35 – Activity 5: Self-Evaluation

The self-evaluation activity is valuable for the learner to position themselves amongst their peers and also serves to hint to the trainer about the effectiveness of the materials and methods used. The trainer gains insights about the degree of satisfaction amongst the audience with their own performance, their peers' performance and also the whole learning experience including the materials and methods used.

Activity 6 – Reflection (Discussion)

The reflective discussion is the closure of all the pervious activities where the learner is reflecting on their experience and is able to pick and choose the most significant aspects of the experience. The trainer empowers learners to use reflections, which is useful to integrate what has been explored so far in what the learner could walk away with.

Objective: A Reflective Discussion	
Trainer	**Learners' Feedback**
This is the final stage of our training session	
I would like to us all to reflect on our experiences and pick and choose the most significant aspects of the experience.	Generating feedback
Engage in a discussion and pick and choose any combination of questions from table 28	

Table 36 – Activity 6: A Reflective Discussion

The trainer could use the learner's feedback on aspects they were able to understand and others which were not clear to them and this is chance to review concepts, frameworks or even experiences that would require to be reinforced or explained further. Many learners tend to remain passive participants and tend to gain more confidence as the learning experience comes to the end. Hence, trainers should capitalize on this activity to integrate the low-performers or the shy ones.

The Experience Phase – Outcome

The outcome of the experience phase is a great opportunity for the trainer to get familiar with the impact of their training on the learner and also the effectiveness of their methods and materials. Given the learning challenges addressed in Table 16, trainers are required to stay tuned to their audience's feedback and perceptions of the strengths and weaknesses of the experiences. Therefore, the experience phase is useful to gain insights from the learner's perspective and to capitalize on strengths and try to review the challenges of the training session and work to strengthen them. Furthermore, more opportunities could be generated form this phase in terms of learning a great deal from what the learner perceives as opportunities for learning and how the materials and methods could be approached in creative manners in future training sessions.

The Feedback Phase – In Action

Activity 7 – Feedback (Recommendations)

The feedback and recommendation activity is the only activity where the trainer remains passive and the learner is the one who is left with full discretion to provide recommendations for the trainer. This is where the ECT Assessment is distributed by anyone but the trainer; it's worth to note that this activity is not performed by the trainer, but by the institutions employing the trainer or offering the training sessions (see ECT Assessment).

The Feedback Phase – Outcome

The outcome of the feedback phase is collected during the assessment of the ECT and processed using the (ECLF – Learner Feedback Form) included in the appendix.

3.6 Further ECT Activities

Now that the connection between the learning challenges and the trainer's role to tailor to the needs of the learner has been established. It is fundamental at this point to walk through various other practical accounts of how the ECT could be put into action in various environments.

Putting the EGG Concept to work would entails an integration of the three learning domains which would suggest the achievement of learning outcomes as they apply to each principle (Table 37).

Principle	Action Verb	Learning Domain		
		***Affective* (Emotion/Feeling)**	***Cognitive* (Thinking)**	***Psychomotor* (Physical/Kinesthetic)**
Maturity	Trigger	Fishbowl with one fish jumping out	100 people on earth representing the world's population	Holland's Occupational Themes (RIASEC)
Diversity	Include	Have different learners say a sentence in their own language	A summary table of world's common religions	Find examples of a project or some achievement with a diverse group of individuals
Acquisition	Channel	Learning Style Activity - Visual, Verbal, Logical and Auditory	Learning Style Activity - Visual, Verbal, Logical and Auditory	Learning Style Activity - Visual, Verbal, Logical and Auditory
Opportunity	Motivate	21st Century Skills – Locate what the learner is good at	21st Century Skills – Locate what the learner is good at	21st Century Skills – Locate what the learner is good at
Cognition	Challenge	Resistance to Change – have the learner describe their negative experience trying to learn a new skill or topic	Resistance to Change – have the learner pinpoint 3 – 5 reasons they could not learn the new skills or topics	Resistance to Change – have the learner present in PowerPoint presentation ways to overcome each of the obstacles faced
Aptitude	Utilize	Have the learner describe their capacity in relation to the Emotional & Social Intelligence chart	Have the learner pinpoint elements that contributed to their success and failure	Have the learner present a successful effort or project and an unsuccessful one
Interest	Interact	Have the learner describe their dream job	Have the learner assess their managerial skills and what needs to be developed further	In a PowerPoint presentation of 10-15 slides, describe your dream job and honestly assess your current managerial skills in terms of what needs to be developed further

Table 37 – ECT Suggested uses

Under the three learning domains, a list of in-training activities is suggested to allow for the achievement of the principles of the EGG Concept and recommend its practical application under a number of settings and environments given a systematic process (Table 38).

Input	Process	Output
• Everyone is important • Pick relevant backgrounds & experiences • Allow time to think • Let learners tell you a story (a case)	• Point out relevance in learner's experience with the topic • Their story or case is what you need to work with	• Learner relates experience to theories • Learner understands the concept (able & willing to explain it) • Learner adopts new approaches

Table 38 – ECT Systematic Approach

3.7 The ECA (Assessment)

The (ECA) or Egg Concept assessment is distributed at the end of training to all members of the audience in order to measure their overall satisfaction with the training session and also their perception of the extent to which the methods and materials used during training were effective in sharing new knowledge, skills and tools. The learner is presented with a list of questions pertaining to each of the principles of the ECT and is rating each principle according to a five-point Likert scale (Table 39).

Principles	Learner	Questions	Trainer	Questions
MT	**Maturity**	The trainer has been able to identify what I already know.	**Trigger**	I have been able identify the experiences of my audience.
II	**Interest**	The trainer understands why I am here.	**Interact**	I made the learner's interest at the core of what I do.
AU	**Aptitude**	The trainer appreciates what I already know.	**Utilize**	I was able to integrate the leaner's experience.
OM	**Opportunity**	The trainer has been able to identify my strengths.	**Motivate**	I was able to capitalize on the learner's strengths**.**
AC	**Acquisition**	The trainer has been effective in transmitting knowledge and experience.	**Channel**	I was able to identify effective methods for my audience.
DI	**Diversity**	I feel I have been appreciated in terms of opinions and background.	**Include**	I have accommodated to the differences in the groups.
CC	**Cognition**	The trainer has been able to simplify difficult concepts.	**Challenge**	I was able to intellectually stimulate the leaner.
ST	**Satisfaction**	Overall, the training session was interesting.	**Satisfaction**	Overall, the training session was interesting.
AP	**Effectiveness**	The materials and methods used were effective.	**Effectiveness**	The materials and methods used were effective.
RE	**Recommendation**	I would recommend this trainer again.	**Recommendation**	I would love to work with this group again.

Table 39 – The ECA (The Egg Concept Assessment)

The ECA assessment is also administered to the trainer's as well in order to measure their perception of their own performance during the training. By doing so, the feedback of the assessment is combined under the ECO – Egg Concept Outcome.

3.8 The ECO (The Outcome)

The outcome of the assessment of the Egg Concept Training is displayed in a graphical representative radar, which provides insight for the overall experience of the training and suggests areas of strengths and weakness from the perspective of the trainer, learner and both the female and male audiences (see example in Figure 28).

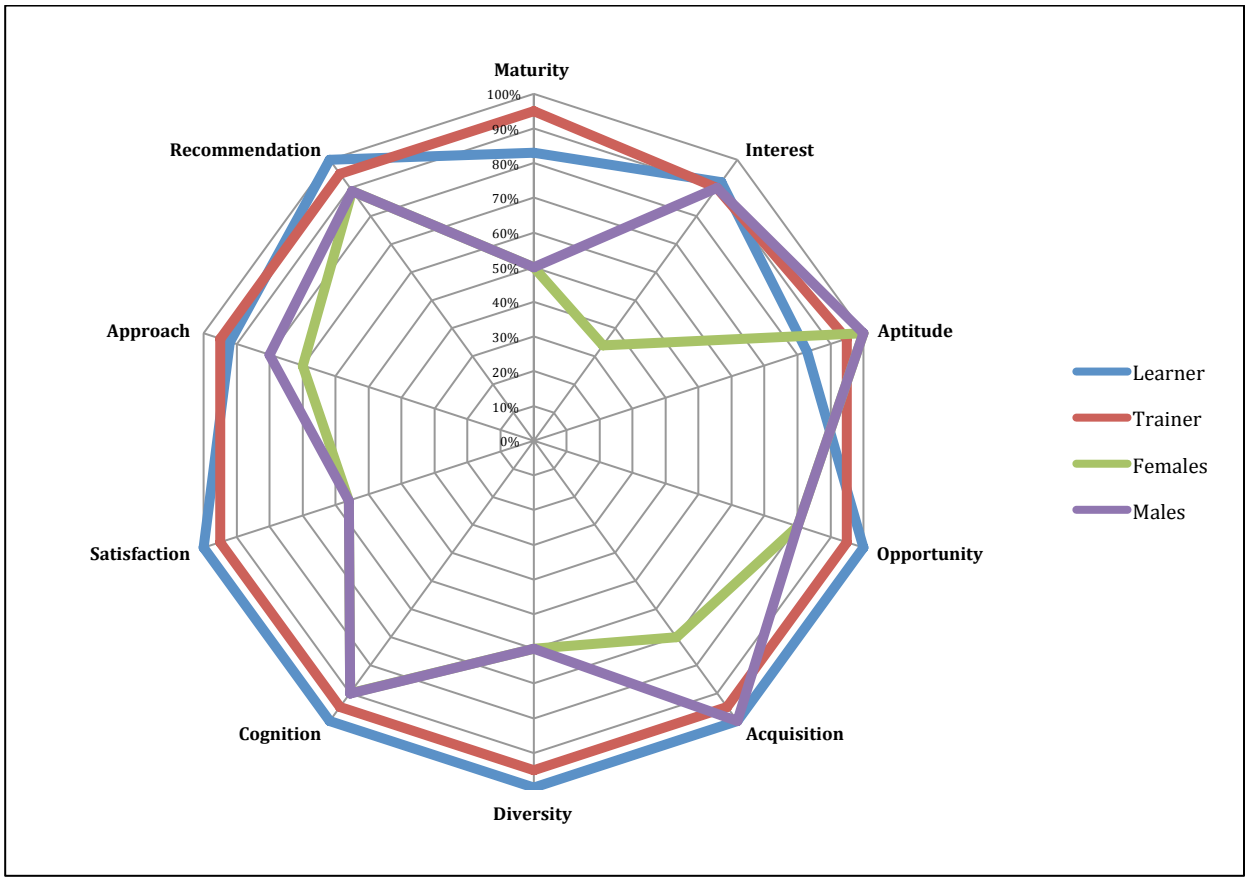

Figure 28 – The ECO (The Egg Concept Outcome)

The visual representation of the assessment allows trainers to see areas where they were more effective; for example learner's perceived the trainer to effective in providing them with more opportunities about the topic and aware of their acquisition' needs as well as considered their diverse opinions and perspectives.

Several benefits emerge from the ECO to explore differences in perceptions between female and male learners and also compare areas of parities and disparities of perceptions between the trainer and the learner.

Evaluators or training institutions could make use of the ECO to learn about the effectiveness of their trainers, also if they are being sensitive to diversity aspects of their audience along with the rest of the ECT principles.

3.9 ECT Application

The ECT is useful for a range of situations, institutions and contexts; its generic nature allows for more flexibility to use and practicality to conduct. All that is required is to train the trainer to use the ECT, understand its principles and practice using the activities associated with each of the ECT phases. The trainer would have to be creative with activities and topics, but the main principles should remain the same.

A wide range of social, professional and educational contexts could benefit from the ECT in ways where a training-learning situation is evoked (Table 40).

Community Talent	School Teaching	Corporate Training
Social Workers - Beneficial to leadership positions	**Professor Training** - Applying a learner-centered approach	**Professional Trainers** - Adopting effective and efficient methods
Cultural Exchange - Working with a diverse audience	**Student Coaching** - Encourage case-based learning	**HR Development** - Talent development

Table 40 – Context to apply the ECT

For example, a social worker would like to train or pass on some knowledge and experience to any group of audience would benefit by learning the ECT concept and would find common grounds of its applicability to share knowledge, skills and tools necessary in their domain.

Similarly, in contexts of cultural exchange the use of the ECT could be extremely useful to share different perspectives with a diverse audience with varying needs and expectations.

The educational domain is an area where the ECT would bring in tremendous value since more and more students experience difficulties in remaining attentive in class and tend to lose interest very quickly. College professors should use the ECT as a training method to practice a learner-centered approach. Consequently, college students would benefit a great deal from learning from real life situations and using case studies.

The corporate environment is another sector, which would make use of the ECT to adopt effective, and efficient training methods in order provide training services or use for talent development.

Eventually, the research aspect of this dissertation focused on testing The ECT in the three context outlined before in order to verify the extent to which the ECT would prove applicability if any. And whether it would qualify for a widespread use.

CHAPTER 4

RESEARCH DESIGN AND METHODOLOGY

This chapter outlines the research design and methodology chosen to answer the research questions raised by the research objectives. The strategy of the research along with the target population, sampling methods, and related procedures will be presented. Moreover, detailed related instrumentation, data collection and analysis procedures will be addressed. Finally, this chapter will highlight essential research procedures including validation, credibility, transparency, and transferability.

4.1 Research Questions

Many vital questions need to be answered about the benefits of introducing a new training approach for improving the learner's satisfaction and recommendation for the trainer. Moreover, it's worth investigating the applicability of the new training approach on a variety of learning environments and the amount of experience required to succeed in applying the new training approach.

The central research question of introducing a new training approach to the current learning challenges emerged initially from the author's experience in professional practice and has been further informed and articulated through the literature review and past research in the domain. This process has led to the definition of four key research questions that will shape the investigation of the four environments selected for the study.

Based on the above, the study is guided by the following research questions:

(1) To what extent does the adoption of the ECT (Egg Concept Training) influence the learner's satisfaction of the learning experience and the approach used as well as recommendation for the trainer?

(2) To what extent does the ECT (Egg Concept Training) encompasses a range of theories and frameworks associated with an improved learning experience?

(3) What is the applicability and feasibility of the ECT (Egg Concept Training) on a variety of settings, environments and contexts?

4.2 Research Strategy

The study was conducted during the month of December 2017 at the premises where the trainings were offered. The researcher met with the trainers first and introduced the research and the purpose of it and communicated the research objectives with the trainers. The researcher sought to get the authorization from the institutions and get the buy in from the trainers to allow to assess their training and collect feedback about its processes and outcome.

The study was performed into two phases for each institution following the agenda below:

Environment	Process	Date	Location	Institution	Topic	Trainer	Experience	Assistant
Association	PreECT	Dec 4th	Rabat	Carrefour MI	Microsoft Application – Ms. Excel	Ismail K. (Male)	10 Years	Issam A.
	PostECT	Dec 25th						
eLearning	PreECT	Dec 6th	Online	IUL	Marketing Management	Ahmed S. (Male)	5 Years	Yasmine A.
	PostECT	Dec 27th						
Corporation	PreECT	Dec 7th	Casablanca	Gates Industries	Sales Techniques	Majda B. (Female)	8 Years	Adel B
	PostECT	Dec 28th						
School	PreECT	Dec 1st	Rabat	PIIMT	Sales Promotion Management	Adam W. (Male)	3 Years	Asmaâ S.
	PostECT	Dec 29th						

Table 41 – Research Agenda

The assessments before the EGC (Egg Concept Training) is labeled as PreECT and the one after training the trainers to use the ECT concept is called PostECT, the process associated with each assessment is detailed below.

Pre-Egg Concept (PreEC)

The PreECT took place before training the trainer about the ECT principles, phases and activities. The trainer is left to conduct their job in natural settings without the minimum interference. The ECT admin is the only person responsible to distribute the Egg Concept Assessment forms (ECA) after the training is over and fills the learner's feedback form (ECLF) then produces the assessment results and profiles (ECAR) which contains details and results for

each of the ECT principles as well as the experience profile. The procedure and corresponding forms are listed in the table below.

Procedure	Forms
Administer to the survey to the trainer right after the training session	ECA – Assessment (Trainer's Feedback Form)
Distribute the survey to the audience right after the training session	ECA – Assessment (Audience Feedback Form)
Fill out the learner's feedback form	ECLF – Learner Feedback Form
Fill out the assessment results and profiles form	ECAR – Assessment Results and Profiles (Part 1)
Output the training experience profile	ECAR – Assessment Results and Profiles (Part 2)

Table 42 – The PreECT Procedure

Post-Egg Concept (PostECT) & Interview

The PostECT refers to the process of training the trainer on using the ECT and measuring the extent to which the performance of the trainer as well as the feedback of the audience reflects an improvement of the learning-training experience. The trainer is walked through the steps of the PostECT procedures and then is evaluated on the basis of the feedback collected. Eventually, the trainers get a chance to review the feedback and are interviewed to comment on it and discuss some aspects of it. The PostECT procedure and corresponding forms are listed in (Table 43).

Procedure	Forms / Reference
Explain the purpose of the ECT	ECT Process (Figure 24)
Discuss the need for the ECT to deal with the Learning Challenges	Learning Challenges - Table 16
Get the buy-in from the trainer to continue the experimentation	Verbal Agreement & the (Voluntary Participation Letter)
Train the trainer on using the four phases and activities during a mock up session	The Pillars of Success – (Section 3.3 – Table 24)
Allow 1 week or enough time till the trainer is ready for the experiment!	Allow time for reflection and preparation
Review the list of activities with the trainer to plan for the ECT training	The Essentials (Table 25) & ECT in Action (Section 3.5)
Administer the survey to the trainer right after the training session	ECA – Assessment (Trainer's Feedback Form)
Distribute the survey to the audience right after the training session	ECA – Assessment (Audience Feedback Form)
Fill out the learner's feedback form	ECLF – Learner Feedback Form
Fill out the assessment results and profiles form	ECAR – Assessment Results and Profiles (Part 1)
Output the training experience profile	ECAR – Assessment Results and Profiles (Part 2)
Share the feedback with the trainer	ECAR – Assessment Results and Profiles (Part 2)
Conduct a post-assessment interview with the trainer and some learners	See Appendices F & G

Table 43 – The PostECT Procedure

4.3 Selecting the Sample

The sample had to include an audience from different environments namely a school, a corporation an association and also an eLearning training session. The purpose behind testing the EGC (Egg Concept Training) on a diverse audience is to verify the applicability of the concept in different environments where an audience would go through a training that should be measured against the ten ECT principles.

The choice of the trainers included four trainers who had to train in different backgrounds and who possesses relatively different experiences and years of practice in the domain of teaching and training.

The topics of the training sessions that were assessed were also diverse including training on a Microsoft Application (Ms. Excel) delivered to the audience of the association, a Marketing Management session offered to an (eLearning) audience. Also a corporate training session on (Sales Techniques) and finally a college course session on (Sales Promotion Management) delivered to 1st year master level college students.

In a nutshell, the combination of academic disciplines, associative, educational and professional also eLearning environments suggest a higher chance for inquiring feedback and opinions from a diverse population with varying needs and expectations from a learning or training session.

Sampling Method

Given the fact that the study will draw on the experience of some cases and use the qualitative analysis accordingly, paying attention to internal validity is essential so to bring an accurate representation of reality. Hence, appropriate sampling to achieve representativeness is of the utmost importance (Soy, 2015). Furthermore, the sample size suggests bypassing statistical tests for they would not be appropriate or feasible. Instead, theoretical sampling is used to collect a significant number of responses but not everybody in the community (Draucker, et al., (2007).

The type of non-random sampling used is convenience sampling, for reasons of convenience because the volunteers and collaborating trainers are accessible to the researcher and the fact that generalizability is not the main aim of qualitative approaches (Etikan, et al., 2016). However, the study used purposive criteria for selecting the sample; first based on gender and age of participants (18 years of age and older) and also the participants who are registered for the training session for any period over one month so that they would participate in the PostECT assessment (Tongco, 2007).

Description of the sample

The sample for the current study consisted of 100 students and professionals comprised of both males and females (50% each) whose ages vary between 18 and 45 years old. The sample remains practical for 'informational needs' as the study is qualitative in nature (Polit & Beck, 2012).

Participants were recruited randomly from two classes (eLearning) and (College) and also from an association and a corporation taught and trained by collaborating professors and trainers, and the study was conducted in the natural environment either classrooms or training facilities where participants were recruited.

The trainers were responsible for conducting their training during regular sessions without the minimum interference with the setting or procedure; the table below provides more information on the sample.

Environment	Sample	Audience		Trainer
		Female	Male	
Association	(N = 22)	13	9	Ismail K. (Male)
	Percentage in Class	59%	41%	10 Years of Experience
eLearning	(N = 25)	12	13	Ahmed S. (Male)
	Percentage in Class	48%	52%	5 Years of Experience
Corporation	(N = 31)	16	15	Majda B. (Female)
	Percentage in Class	52%	48%	8 Years of Experience
School	(N = 22)	9	13	Adam W. (Male)
	Percentage in Class	41%	59%	3 Years of Experience
Audience	**(N = 100)**	**50**	**50**	**AVG 6.5 Years of Experience**
	Percentage in Class	**50%**	**50%**	

Table 44 – Participants' Description

The sampling for the interviews with the learners was based on picking one person from each environment; hence only one person from each environment was interviewed where two females and two males were randomly picked. However, all the participating trainers were interviewed.

4.4 Research Design & Data Collection

Questionnaires

A questionnaire (ECA – Egg Concept Assessment) with two versions one for the audience and the second for the trainers has been employed to collect the opinions and feedback of the learners and trainers in relation to the ECT principles. The questionnaire includes the date, the name of the trainer, the topic of training and the gender of the respondent. The questionnaire also includes a field to choose the environment of the training or type of audience: school, corporation, association or eLearning (Appendix B).

The questionnaire takes a shape of a table with seven columns and eleven rows. The rows include ten questions with their corresponding ECT principles. The columns include the list of Principles (Pr) abbreviated in order not to consume the respondents with the meaning for each principle and also the principles would be useful to track the responses for later processing. Each question is rated in terms of the respondent's choice of one of the five point Likert scale, ranging from (Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree) in order to capture the respondents' attitudes and perceptions with regards to their training experience (Allen & Seaman, 2007).

Data Collection

The data collected from the (ECA – Egg Concept Assessment) is inputted into a feedback form the (ECLF – Egg Concept Learner Feedback Form) which includes similar fields as the ECA including a numbered list of boxes from 1-20 which allows the data collector to quickly mark the number of responses under each question and its corresponding five point Likert scale. Of course the ECLF is not only limited to 20 responses but the data collector could use extra sheets as needed (Appendices B & C).

Its important that each ECLF includes an (Admin), the person who is responsible for the data collection process and an (Assistant) the person who is providing assistance. Such pieces of information are useful to go back to check and verify additional information about the forms. Another important note is that two ECLF's must be filled after each training session; one for the collection of the trainer's feedback and the second for the whole audience that is associated with the particular trainer (Allen & Seaman, 2007).

Assessment Results and Profiles

The filled ECLF (Egg Concept Learner Feedback Form) serves to organize the data into more meaningful pieces of information about the feedback of the trainer and the corresponding audience. Therefore the data is combined from the ECLF into a new excel form which is the ECAR (Egg Concept Assessment Results and Profiles) the value of which is to conduct automatic calculations and turn numbers into percentages under corresponding fields for the audience genders, the opinions under each principle to combine the percentages for (SD and D) also the (A and SA) which are utilized to create scores for each principle. The scores for the female, male and group as well as the trainer serve as input for creating a profile for the training session (Appendices C & D).

Interviews

The post assessment interviews are useful to gather insight about the research process and establish learning lessons based on the experience of the trainers after sharing the PostECT assessments with them. The interviews included one common questions and a case-based question for each trainer based on the areas that were judged important to investigate further (Table 45).

4 Trainers	Association (Ismail)	eLearning (Ahmed)	Corporate (Majda)	School (Adam)
Common Question	How can you describe your experience with the ECT?			
Case-specific questions	How could you explain the feedback of the female audience PreECT?	How would you improve the score of recommendation for the trainer in the future?	How would you explain the improvement of the scores on the approach, satisfaction and recommendation for the trainer?	Your scores on the approach, satisfaction and recommendation PreECT were higher than 50%, how would you benefit more from the ECT in the future?

Table 45 – Post Assessment' Interview Strategy with trainers

Four members from the audience were also randomly interviewed to draw on their perspective of how they perceived particular aspects of the ECT. Below are the four questions that were asked PostECT to one member from each of the four groups (Table 46).

4 Learners	Association (Lina)	eLearning (Amir)	Corporate (Zina)	School (Saad)
Experience	How can you describe your experience with the ECT?			
Satisfaction	How satisfied are you with the training you received today?			
Approach	What do you think of the materials and methods used by your trainer?			
Recommendation	Would you recommend this trainer again?			

Table 46 – Post Assessment' Interview Strategy with learners

4.5 Analyzing the data

Questionnaires

Data analysis for the questionnaires relied on Microsoft Office Excel sheets that were formatted into calculating tables of scores and turning them into percentages. The processes includes a four-step process where the data from the inputs (ECA) were entered into the (ECLF) to gather all the responses and organize them into meaningful ways. Then output through the (ECAR) allows for the creation of profiles for the learning sessions (seen Appendices).

Input	Processing	Output	Analysis
ECA – Assessment	ECLF – Learner Feedback Form	ECAR – Assessment Results and Profiles	ECAR – Assessment Results and Profiles
The audience and trainer's questionnaires	The forms to collect inputs form the questionnaires	The processing sheets to portray results	The associated profiles to the training session

Table 47 – Data Collection and Processing

The use of the Microsoft Office Excel allowed gathering participants' responses and identifying their opinions based on the relative scores on the ECY principles. The responses helped to associate percentages to each of the ten principles allowing for the creation of profiles. The identification of each audience' opinions including the female, male and combined audience (Group) in relation to their trainers was significant because they established the foundation for the study.

Interviews

The feedback form the post assessment interviews was analyzed qualitatively using common themes and drawing on important aspects highlighted by the trainers themselves as result of being trained on how to use the ECT principles and integrate them into their training sessions. The opinion of the audience from the four different environments was also collected using the same process of analysis. The feedback collected from the interviews proved to be extremely useful to provide more detail, which was woven into the findings of the research (Section 5.5).

4.6 Essential Research Procedures

Validation

For the sake of validation of procedures, the research has followed an interpretive-constructivist approach to accurately report the accounts of the participants' feedback from the interviews conducted PostECT. The PreECT profiles were shared with the trainers in order to seek their input and willingness to conduct the PostECT assessments using the ECT principles and devising the accompanying activities (Cresswell & Miller, 2000).

Credibility

For credibility measures, the research has gone through a triangulation of data from different sources with the consideration of the participants' perceptions through the respondents' questionnaire and interviews and the associated analysis of the meaning drawn from the findings. In addition, seeking validation through observation and individual feedback and trend analysis and also the review of the literature and documentation relevant to the research (Olson, 2014).

Transparency

One of the essential core values, which this research made sure to stick to all the times, is transparency and this included all the phases of the research. Participants had the complete freedom to participate, share their input or reject to take part in the research. The purpose and objectives of the research was equally shared with all the participants and the collaborating trainers prior to each assessment and interview. The profiles were shared with the trainers after the initial assessment and also after the PostECT, which was clearly utilized in the interview questions (Jackson, 2014).

Transferability

The findings from the research could be seen in motivating ways to be transferred to various contexts given the step-by-step approach in which the ECT has been documented and explained including the accompanying phases and examples of activities. Moreover, the detailed description of the instrument design and data collection along with the accompanying ECT process and procedures should facilitate the reproduction of the same research settings in different contexts.

4.7 Ethical Issues

The researcher served as the main administrator of the research relying on the help of four research assistants who made sure the process and research procedures did not present any conflict of interest and ensured that the participants and the trainers were not influenced in any form or fashion in terms of the willingness to participate in the study and report accurate feedback during all the phases of the research (the PreECT and PostECT as well as the interviews). Consequently, the research assistants were in charge of reading aloud in front of the participants a voluntary participation letter prior to each assessment; the letter included freedom of participation or decline and that the participants' names and information would remain confidential prior, during and after the research. Eventually, there were no reported cases of declining to participate in the research (Appendix H).

Authorizations was obtained to conduct the research at the premises of the organizations where the research has taken place with the agreement to use the first names but keep confidentiality while using the institutions as case studies for research purposes only. Therefore the agreement included the use of first names of trainers but not last names, the trainers were given enough information about the research, its target audience and purpose and goals (Cresswell & Miller, 2000).

4.8 Methodology Limitations

The research design could be criticized for a few reasons such as the measurement of opinions and quantifying them with percentages and the same goes for recommendation and judgment for the effectiveness of the approach employed by the trainers (Gruber et al., 2010)

Another limitation could be argued in terms of the Egg Concept Assessment (ECA) with regards to its design, which may not in include other elements important in learning and training as well as the use of the Likert scale which might not provide an accurate assessment for opinions. Accordingly, the opinions and feedback report could be seen as momentary and linked to the current context and might not express the opinions of other people in different contexts. Hence, further research is required on this regard.

The range of critics regarding the methodology could have been avoided given more time and resources to conduct this research yet the scope and research objectives would have been altered from its original purpose.

CHAPTER 5

FINDINGS AND DATA ANALYSIS

The current chapter presents the research findings generated from the data captured from the Egg Concept Assessment (ECA) and The Egg Concept Outcome (ECO). The organization of the chapter includes a description of the impact of the ECT through the presentation of the perceptions of the audience by gender and also from the different environments where the research took place.

5.1 ECT Impact

The impact of the ECT on the four environments is felt at every principle of the ECT; the variations in terms of the difference between PreECT and PostECT will be highlighted in the following sections.

The ECT produced improvements in performance according to a number of principles and in different environments. Therefore, it's essential to measure the impact of the ECT on the following areas and aspects:

- ✓ **Environment**: Association, eLearning, Corporation and School.
- ✓ **Audience**: The perception of the learning experience by each audience category.
- ✓ **Trainer**: The trainer's characteristics in relation to the principles of Approach, Satisfaction and Recommendation.

The table below sums up the findings by principle for each segment of the audience organized by the PreECT (assessment before the ECT) and PostECT (assessment after training with the ECT) highlighting the difference in perceptions that took place PostECT for each environment.

Principles		Questions	Audience	Environment											
				Association			eLearning			Corporation			School		
				PRE	*POST*	*Diff*	*PRE*	*POST*	*Diff*	*PRE*	*POST*	*Diff*	*PRE*	*POST*	*Diff*
MT	Maturity	The trainer has been able to identify what I already know.	Female	31%	62%	**31%**	42%	58%	**16%**	44%	63%	**19%**	44%	67%	**23%**
			Male	67%	78%	**11%**	38%	62%	**24%**	40%	67%	**27%**	46%	69%	**23%**
			Group	45%	68%	**23%**	40%	60%	**20%**	42%	65%	**23%**	45%	68%	**23%**
II	Interest	The trainer understands why I am here.	Female	38%	62%	**24%**	50%	75%	**25%**	44%	63%	**19%**	67%	78%	**11%**
			Male	67%	89%	**22%**	46%	69%	**23%**	53%	67%	**14%**	38%	54%	**16%**
			Group	50%	73%	**23%**	48%	72%	**24%**	48%	65%	**17%**	50%	64%	**14%**
AU	Aptitude	The trainer appreciates what I already know.	Female	15%	46%	**31%**	42%	67%	**25%**	44%	56%	**12%**	56%	67%	**11%**
			Male	33%	56%	**23%**	38%	54%	**16%**	47%	67%	**20%**	23%	38%	**15%**
			Group	23%	50%	**27%**	40%	60%	**20%**	45%	61%	**16%**	36%	50%	**14%**
OM	Opportunity	The trainer has been able to identify my strengths.	Female	15%	38%	**23%**	33%	50%	**17%**	56%	69%	**13%**	44%	56%	**12%**
			Male	67%	89%	**22%**	38%	54%	**16%**	40%	67%	**27%**	31%	54%	**23%**
			Group	36%	59%	**23%**	36%	52%	**16%**	48%	68%	**20%**	36%	55%	**19%**
AC	Acquisition	The trainer has been effective in transmitting knowledge and experience.	Female	38%	54%	**16%**	50%	67%	**17%**	38%	56%	**18%**	78%	89%	**11%**
			Male	33%	56%	**23%**	38%	54%	**16%**	60%	73%	**13%**	38%	54%	**16%**
			Group	36%	55%	**19%**	44%	60%	**16%**	48%	65%	**17%**	55%	68%	**13%**
DI	Diversity	I feel I have been appreciated in terms of opinions and background.	Female	8%	31%	**23%**	50%	67%	**17%**	50%	63%	**13%**	56%	78%	**22%**
			Male	33%	44%	**11%**	38%	54%	**16%**	47%	67%	**20%**	23%	38%	**15%**
			Group	18%	36%	**18%**	44%	60%	**16%**	48%	65%	**17%**	36%	55%	**19%**
CC	Cognition	The trainer has been able to simplify difficult concepts.	Female	38%	54%	**16%**	42%	58%	**16%**	44%	56%	**12%**	67%	89%	**22%**
			Male	44%	65%	**21%**	46%	62%	**16%**	47%	60%	**13%**	31%	46%	**15%**
			Group	41%	55%	**14%**	44%	60%	**16%**	45%	58%	**13%**	45%	64%	**19%**
ST	Satisfaction	Overall, the training session was interesting.	Female	38%	54%	**16%**	42%	67%	**25%**	44%	63%	**19%**	67%	89%	**22%**
			Male	44%	67%	**23%**	38%	54%	**16%**	47%	67%	**20%**	46%	62%	**16%**
			Group	41%	59%	**18%**	40%	60%	**20%**	45%	70%	**25%**	55%	73%	**18%**
AP	Approach	The materials and methods used were effective.	Female	46%	69%	**23%**	33%	58%	**25%**	44%	69%	**25%**	56%	78%	**22%**
			Male	33%	56%	**23%**	38%	62%	**24%**	40%	67%	**27%**	46%	62%	**16%**
			Group	41%	64%	**23%**	36%	60%	**24%**	42%	68%	**26%**	50%	68%	**18%**
RE	Recommendation	I would recommend this trainer again.	Female	46%	77%	**31%**	42%	58%	**16%**	50%	81%	**31%**	67%	89%	**22%**
			Male	67%	89%	**22%**	54%	69%	**15%**	47%	67%	**20%**	46%	62%	**16%**
			Group	55%	82%	**27%**	48%	64%	**16%**	48%	74%	**26%**	55%	73%	**18%**
			Average	**40%**	**61%**	**22%**	**42%**	**61%**	**19%**	**46%**	**66%**	**19%**	**48%**	**65%**	**17%**

Table 48 – The ECT impact

The purpose of the findings above is to provide an overall idea of the impact of the ECT on the audiences and their respective environments; the sections that follow will highlight the details of the ECT impact by environment, audience and the relative impact by the trainers.

5.2 Impact by Environment

The Association

The Setting

The Egg Concept Assessment (ECA) took place on December 4th, 2017 after a training session in a small association for community development in Rabat. The topic of the training was about learning the essentials of Microsoft Excel for an audience of 22 social workers; 13 females and 9 males operating in the area of Rabat-Kenitra. The trainer is a male with 10 years of experience in training socials workers in associations for the purpose of community development.

Association – PreECT (The Trainer Profile)

The ECAR (Assessment Results and Profiles) conducted prior to training Mr. Ismail on how to use the Egg Concept Training (ECT) revealed the following results.

The trainer neglected the importance of integrating the maturity of learners' in terms of their experiences and how it relates to the topic they are learning about based on the **maturity** principle. Also the trainer did not consider the learner's interest while conducting the training according to the **interest** principle. Eventually, the trainer did not capitalize on the learner's strengths based on the **opportunity** principle and did not engage in intellectually stimulating the leaner based on the **cognition** principle (see table 49).

ECAR – Assessment Results and Profiles

Topic: Microsoft Application – Ms. Excel (Rabat) **Date:** Dec 4th, 2017

Trainer:	Ismail K.	M	9
Audience:	22	F	13

Environment			
School	Corporation	Association	eLearning

Maturity	Interest	Aptitude	Opportunity	Acquisition	Diversity	Cognition	Satisfaction	Approach	Recommendation
The trainer has been able to identify what I already know.	The trainer understands why I am here.	The trainer appreciates what I already know.	The trainer has been able to identify my strengths.	The trainer has been effective in transmitting knowledge and experience.	I feel I have been appreciated in terms of opinions and background.	The trainer has been able to simplify difficult concepts.	Overall, the training session was interesting.	The materials and methods used were effective.	I would recommend this trainer again.
Female	**Female**	**Female**	**Female**	**Female**	**Female**	**Female**	**Female**	**Female**	**Female**
SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA
3 4 2 3 1	1 3 4 5	4 3 4 1 1	5 3 3 2	5 3 5	3 4 5 1	1 4 3 4 1	1 4 3 3 2	2 3 2 5 1	2 3 2 5 1
7 2 4	4 4 5	7 4 2	8 3 2	5 3 5	7 5 1	5 3 5	5 3 5	5 2 6	5 2 6
54% 15% 31%	31% 31% 38%	54% 31% 15%	62% 23% 15%	38% 23% 38%	54% 38% 8%	38% 23% 38%	38% 23% 38%	38% 15% 46%	38% 15% 46%
13	13	13	13	13	13	13	13	13	13
Male	**Male**	**Male**	**Male**	**Male**	**Male**	**Male**	**Male**	**Male**	**Male**
SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA
3 3 3	3 3 3	6 3	3 3 3	3 3 3	3 3 3	1 2 2 4	1 1 3 2 2	3 3 3	3 6
0 3 6	0 3 6	0 6 3	0 3 6	6 0 3	3 3 3	3 2 4	2 3 4	3 3 3	0 3 6
0% 33% 67%	0% 33% 67%	0% 67% 33%	0% 33% 67%	67% 0% 33%	33% 33% 33%	33% 22% 44%	22% 33% 44%	33% 33% 33%	0% 33% 67%
9	9	9	9	9	9	9	9	9	9
Group	**Group**	**Group**	**Group**	**Group**	**Group**	**Group**	**Group**	**Group**	**Group**
SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA
3 4 5 6 4	1 3 7 8 3	4 3 10 4 1	5 3 6 5 3	3 8 3 8 0	6 4 8 4 0	2 3 3 8 6	2 5 6 5 4	2 6 5 8 1	2 3 5 11 1
7 5 10	4 7 11	7 10 5	8 6 8	11 3 8	10 8 4	8 5 9	7 6 9	8 5 9	5 5 12
32% 23% 45%	18% 32% 50%	32% 45% 23%	36% 27% 36%	50% 14% 36%	45% 36% 18%	36% 23% 41%	32% 27% 41%	36% 23% 41%	23% 23% 55%
22	22	22	22	22	22	22	22	22	22

Maturity	Interest	Aptitude	Opportunity	Acquisition	Diversity	Cognition	Satisfaction	Approach	Recommendation
I have been able identify the experiences of my audience.	I made the learner's interest at the core of what I do.	I was able to integrate the leaner's experience.	I was able to capitalize on the learner's strengths.	I was able to identify effective methods for my audience.	I have accommodated to the differences in the groups.	I was able to intellectually stimulate the leaner.	Overall, the training session was interesting.	The materials and methods used were effective.	I would love to work with this group again.
Trainer	**Trainer**	**Trainer**	**Trainer**	**Trainer**	**Trainer**	**Trainer**	**Trainer**	**Trainer**	**Trainer**
SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA
1	1	1	1	1	1	1	1	1	1
1 0 0	1 0 0	0 0 1	1 0 0	0 0 1	0 0 1	1 0 0	0 0 1	0 0 1	0 0 1
100% 0% 0%	100% 0% 0%	0% 0% 100%	100% 0% 0%	0% 0% 100%	0% 0% 100%	100% 0% 0%	0% 0% 100%	0% 0% 100%	0% 0% 100%

Maturity	Interest	Aptitude	Opportunity	Acquisition	Diversity	Cognition	Satisfaction	Approach	Recommendation
68% -23% -45%	82% -32% -50%	-32% -45% 77%	64% -27% -36%	-50% -14% 64%	-45% -36% 82%	64% -23% -41%	-32% -27% 59%	-36% -23% 59%	-23% -23% 45%

Admin: Jalal Mouti EC 2018 **Assistant:** Issam A.

Table 49 – Association PreECT

Association – PreECT (Group Feedback)

The female audience felt ignored in the majority of ECT principles; maturity, interest, aptitude, opportunity, acquisition, diversity, cognition and the overall satisfaction with the training while the male audience felt a discomfort with the following ECT principles; aptitude, acquisition, diversity and approach (see figure 29).

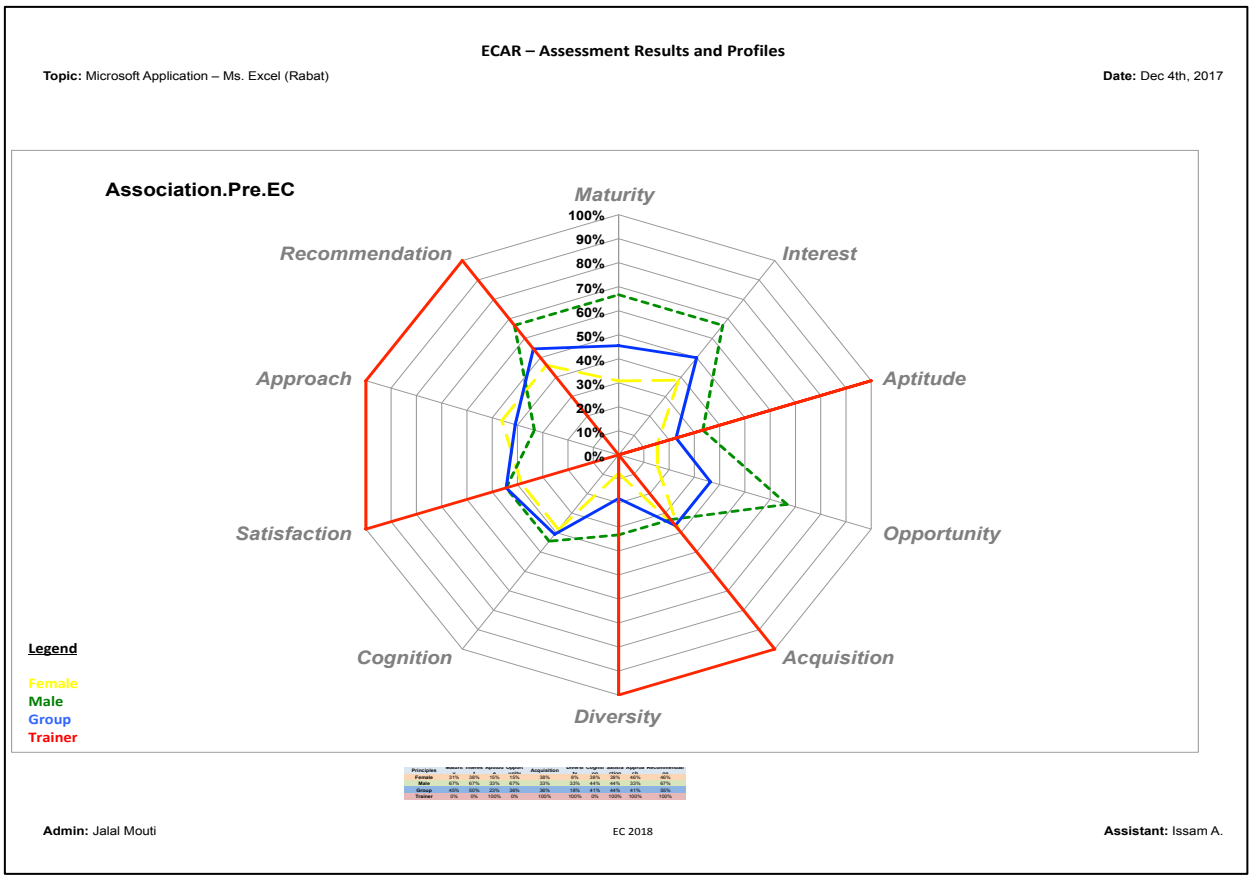

Figure 29 – Association PreECT

Association – PostECT

The ECT training with Mr. Ismail highlighted the importance of all the ECT principles and the trainer agreed that they are essential for a pleasant learning environment. Hence, the trainer's performance and feedback made sure to consider all the principles and this is apparent in the trainer's score of the ten principles (Figure 30).

The group's feedback PostECT demonstrate an improvement on the ECT principles and more particularly the approach by 23% increasing from (41% to 64%), satisfaction by 18% increasing from (41% to 59% and recommendation for the trainer by 23% increasing from (41% to 64%) see (Table 48).

The ECAR (Assessment Results and Profiles) conducted PostECT suggest that the trainer should make more effort to address the female's audience needs on a range of ECT principles including maturity, interest, aptitude, opportunity and diversity. On the contrary the male audience's feedback clearly posit that they were a bit more comfortable with the trainer. Such feedback has been shared with the trainer to capitalize on the strengths and improve and develop areas of inefficiencies (Figure 30).

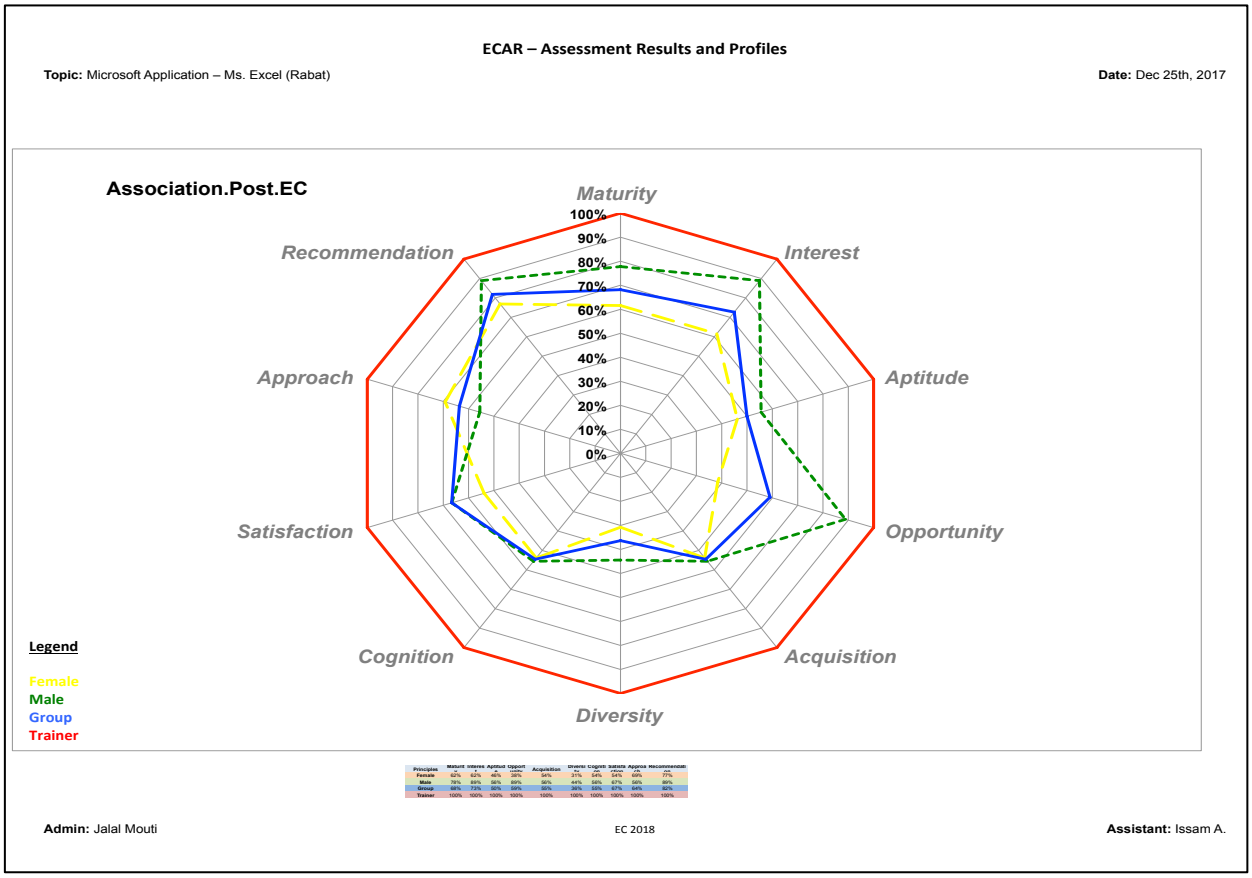

Figure 30 – Association PostECT

eLearning

The Setting

The Egg Concept Assessment (ECA) was performed on December 6th, 2017 after an eLearning session as part of a BBA program. The topic of the training was about marketing management for an audience of 25 college students (12 females and 13 males). The trainer is a male with 5 years of experience in teaching college level course to college students both physical and online.

eLearning – PreECT (The Trainer Profile)

The ECAR (Assessment Results and Profiles) conducted prior to training Mr. Ahmed on how to use the Egg Concept Training (ECT) revealed the following results.

The trainer incorporated the ECT principles of opportunity, cognition and approach and seemed to value the importance of the ECT principles of maturity, interest, aptitude, acquisition, and diversity (see table 50).

ECAR – Assessment Results and Profiles

Topic: Marketing Management (eLearning) **Date:** Dec 6th, 2017

Trainer:	Ahmed S.	M	13
Audience:	25	F	12

Environment			
School	Corporation	Association	eLearning

Maturity	Interest	Aptitude	Opportunity	Acquisition	Diversity	Cognition	Satisfaction	Approach	Recommendation
The trainer has been able to identify what I already know.	The trainer understands why I am here.	The trainer appreciates what I already know.	The trainer has been able to identify my strengths.	The trainer has been effective in transmitting knowledge and experience.	I feel I have been appreciated in terms of opinions and background.	The trainer has been able to simplify difficult concepts.	Overall, the training session was interesting.	The materials and methods used were effective.	I would recommend this trainer again.

Female

SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA
2	2	3	3	2	1	2	3	3	3	1	2	4	2	3	1	2	5	2	2	2	2	2	3	3	2	2	2	3	3	2	2	3	3	2	3	2	2	1	3	3	2	3
4	3	5	3	3	6	3	4	5	3	5	4	4	2	6	4	2	6	4	3	5	4	3	5	5	3	4	4	3	5											
33%	25%	42%	25%	25%	50%	25%	33%	42%	25%	42%	33%	33%	17%	50%	33%	17%	50%	33%	25%	42%	33%	25%	42%	42%	25%	33%	33%	25%	42%											
12			12			12			12			12			12			12			12			12			12											

Male

SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA
3	2	3	2	3	2	2	3	3	3	3	3	2	2	3	3	2	3	2	3	3	3	2	3	2	3	3	2	3	3	1	3	3	3	3	3	2	3	2	2	2	3	4
5	3	5	4	3	6	6	2	5	5	3	5	6	2	5	6	2	5	4	3	6	5	3	5	5	3	5	4	2	7											
38%	23%	38%	31%	23%	46%	46%	15%	38%	38%	23%	38%	46%	15%	38%	46%	15%	38%	31%	23%	46%	38%	23%	38%	38%	23%	38%	31%	15%	54%											
13			13			13			13			13			13			13			13			13			13											

Group

SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA
5	4	6	5	5	3	4	6	6	6	4	5	6	4	6	4	4	8	4	5	5	5	4	6	5	5	5	4	5	6	3	5	6	5	6	5	4	6	5	5	6	4	6	5	4	3	5	5	5	7
9	6	10	7	6	12	9	6	10	8	8	9	10	4	11	10	4	11	8	6	11	9	6	10	10	6	9	8	5	12											
36%	24%	40%	28%	24%	48%	36%	24%	40%	32%	32%	36%	40%	16%	44%	40%	16%	44%	32%	24%	44%	36%	24%	40%	40%	24%	36%	32%	20%	48%											
25			25			25			25			25			25			25			25			25			25											

Maturity	Interest	Aptitude	Opportunity	Acquisition	Diversity	Cognition	Satisfaction	Approach	Recommendation
I have been able identify the experiences of my audience.	I made the learner's interest at the core of what I do.	I was able to integrate the leaner's experience.	I was able to capitalize on the learner's strengths.	I was able to identify effective methods for my audience.	I have accommodated to the differences in the groups.	I was able to intellectually stimulate the leaner.	Overall, the training session was interesting.	The materials and methods used were effective.	I would love to work with this group again.

Trainer

SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA
				1					1					1					1					1					1					1					1
0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1
0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%

Maturity	Interest	Aptitude	Opportunity	Acquisition	Diversity	Cognition	Satisfaction	Approach	Recommendation
-36% -24% 60%	-28% -24% 52%	-36% -24% 60%	-32% -32% 64%	-40% -16% 56%	-40% -16% 56%	-32% -24% 56%	-36% -24% 60%	-40% -24% 64%	-32% -20% 52%

Admin: Jalal Mouti EC 2018 **Assistant:** Yasmine A.

Table 50 – eLearning PreECT

eLearning – PreECT (Group Feedback)

The female audience felt dissatisfied with the ECT principles of; opportunity and the way the trainer has been able to identify their strengths also the extent to which the trainers was effective with the approach including the materials and methods used during the training. The male audience, however, portrayed a discomfort with the ECT principles of maturity, aptitude, opportunity, acquisition, diversity and approach (see figure 31).

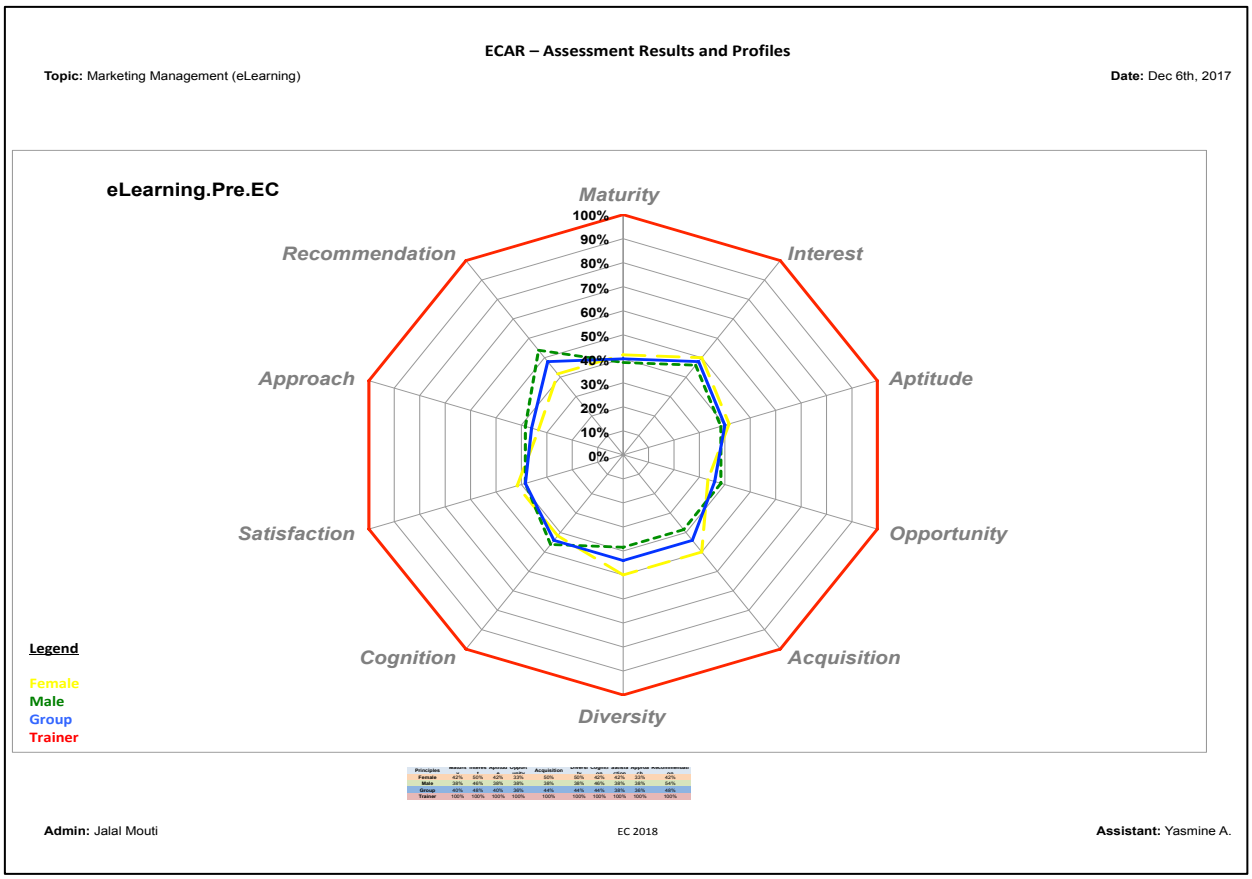

Figure 31 – eLearning PreECT

eLearning – PostECT

The ECT training with Mr. Ahmed highlighted the importance of all the ECT principles and the trainer agreed that they are essential for a pleasant learning environment. Hence, the trainer's performance and feedback made sure to consider all the principles and this is apparent in the trainer's score on the ten principles (Figure 32).

The group's feedback PostECT demonstrate an improvement on the ECT principles and more particularly the approach by 24% increasing from (36% to 60%), satisfaction by 20% increasing from (40% to 60% and recommendation for the trainer by 16% increasing from (48% to 64%) see (Table 48).

The ECAR (Assessment Results and Profiles) conducted PostECT suggest that the trainer should invest more effort to address the female's audience needs on the ECT principles of opportunity. On the contrary the male audience's feedback clearly posit that they require a little more attention on the principles of interest, aptitude, acquisition and diversity. Such feedback has been shared with the trainer to capitalize on the strengths and improve and develop areas of inefficiencies (Figure 32).

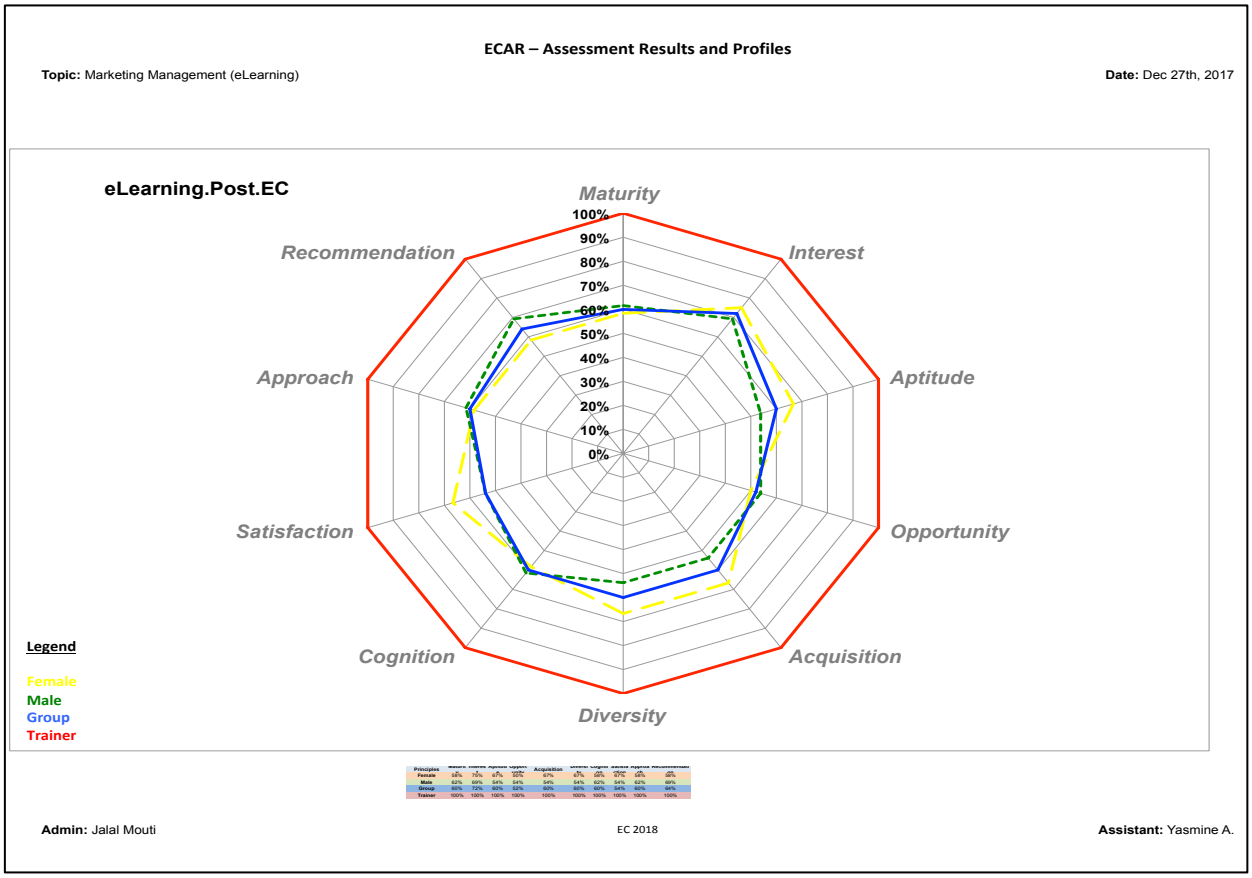

Figure 32 – eLearning PostECT

Corporation

The Setting

The Egg Concept Assessment (ECA) took place on December 7th, 2017 after a training session in sales techniques for a group of engineers at a solar company based in Casablanca. The audience was a group of 31 professionals (16 females and 15 males) working on engineering projects all over Morocco. The trainer is a female with 8 years of experience in training a corporate audience in the domain of sales and marketing.

Corporation – PreECT (The Trainer Profile)

The ECAR (Assessment Results and Profiles) conducted prior to training Ms. Majda on how to use the Egg Concept Training (ECT) revealed the following results.

The trainer incorporated the ECT principles of maturity, interest, opportunity, acquisition, diversity and cognition and seemed to value the importance of the ECT principles of aptitude and was aware of importance of the approach (see table 51).

ECAR – Assessment Results and Profiles

Topic: Sales Techniques (Casablanca) **Date:** Dec 7th, 2017

Trainer:	Majda B.	M	15
Audience:	31	F	16

Environment			
School	Corporation	Association	eLearning

Maturity	Interest	Aptitude	Opportunity	Acquisition	Diversity	Cognition	Satisfaction	Approach	Recommendation
The trainer has been able to identify what I already know.	The trainer understands why I am here.	The trainer appreciates what I already know.	The trainer has been able to identify my strengths.	The trainer has been effective in transmitting knowledge and experience.	I feel I have been appreciated in terms of opinions and background.	The trainer has been able to simplify difficult concepts.	Overall, the training session was interesting.	The materials and methods used were effective.	I would recommend this trainer again.
Female									
SD: 3	SD: 3	SD: 3	SD: 2	SD: 3	SD: 2	SD: 2	SD: 2	SD: 2	SD: 3
D: 3	D: 2	D: 4	D: 3	D: 2	D: 3	D: 2	D: 3	D: 4	D: 2
N: 3	N: 4	N: 4	N: 3	N: 4	N: 4	N: 5	N: 4	N: 3	N: 3
A: 3	A: 3	A: 3	A: 4	A: 5	A: 4	A: 2	A: 3	A: 4	A: 4
SA: 4	SA: 4	SA: 3	SA: 3	SA: 3	SA: 3	SA: 3	SA: 3	SA: 3	SA: 4
6	3	7	5	4	7	6	3	7	5	2	9	6	4	6	5	3	8	4	5	7	5	4	7	6	3	7	5	3	8
38%	19%	44%	31%	25%	44%	38%	19%	44%	31%	13%	56%	38%	25%	38%	31%	19%	50%	25%	31%	44%	31%	25%	44%	38%	19%	44%	31%	19%	50%
16			16			16			16			16			16			16			16			16			16		
Male									
SD: 3	SD: 2	SD: 2	SD: 1	SD: 4	SD: 5	SD: 3	SD: 3	SD: 2	SD: 4	SD: 3	SD: 2	SD: 4	SD: 5	SD: 2	SD: 3	SD: 3	SD: 4	SD: 3	SD: 2	SD: 3	SD: 3	SD: 4	SD: 3	SD: 3	SD: 2	SD: 4	SD: 3	SD: 3	SD: 2	SD: 1	SD: 5	SD: 3	SD: 4
D: 2	D: 4	D: 3	D: 3	D: 1	D: 4	D: 5	D: 3	D: 3	D: 2	D: 4	D: 3	D: 3	D: 3	D: 1	D: 3	D: 2	D: 4	D: 5	D: 2	D: 3	D: 3	D: 4	D: 3	D: 2	D: 3	D: 3	D: 4	D: 3	D: 2	D: 4	D: 3	D: 3	D: 4
N: 4	N: 3	N: 4	N: 3	N: 4	N: 5	N: 3	N: 3	N: 4	N: 3	N: 3	N: 3	N: 2	N: 4	N: 3	N: 3	N: 4	N: 5	N: 3	N: 4	N: 3	N: 3	N: 3	N: 4	N: 3	N: 4	N: 3	N: 3	N: 4	N: 3	N: 3	N: 3	N: 4	N: 5
A: 3	A: 3	A: 4	A: 3	A: 3	A: 3	A: 4	A: 3	A: 3	A: 4	A: 3	A: 3	A: 3	A: 3	A: 3	A: 2	A: 4	A: 3	A: 4	A: 3	A: 3	A: 2	A: 3	A: 3	A: 4	A: 3	A: 3	A: 3	A: 3	A: 4	A: 3	A: 3	A: 3	A: 3
SA: 3	SA: 2	SA: 3	SA: 3	SA: 3	SA: 2	SA: 3	SA: 4	SA: 3	SA: 3	SA: 3	SA: 4	SA: 4	SA: 3	SA: 5	SA: 4	SA: 3	SA: 2	SA: 3	SA: 3	SA: 4	SA: 3	SA: 3	SA: 3	SA: 3	SA: 3	SA: 3	SA: 3	SA: 3	SA: 3	SA: 4	SA: 3	SA: 3	SA: 4
5	4	6	3	4	8	6	2	7	6	3	6	4	2	9	5	3	7	5	3	7	5	3	7	5	4	6	3	5	7
33%	27%	40%	20%	27%	53%	40%	13%	47%	40%	20%	40%	27%	13%	60%	33%	20%	47%	33%	20%	47%	33%	20%	47%	33%	27%	40%	20%	33%	47%
15			15			15			15			15			15			15			15			15			15		
Group									
SD: 6	SD: 5	SD: 7	SD: 5	SD: 3	SD: 8	SD: 7	SD: 5	SD: 5	SD: 8	SD: 6	SD: 4	SD: 7	SD: 5	SD: 7	SD: 8	SD: 4	SD: 6	SD: 6	SD: 7	SD: 8	SD: 4	SD: 6	SD: 6	SD: 7	SD: 8	SD: 5	SD: 4	SD: 8	SD: 7	SD: 7	SD: 5	SD: 5	SD: 7	SD: 7	SD: 7	SD: 5	SD: 6	SD: 7	SD: 7	SD: 6	SD: 5	SD: 3	SD: 8	SD: 7	SD: 8
D: 11	D: 7	D: 13	D: 8	D: 8	D: 15	D: 12	D: 5	D: 14	D: 11	D: 5	D: 15	D: 10	D: 6	D: 15	D: 10	D: 6	D: 15	D: 9	D: 8	D: 14	D: 10	D: 7	D: 14	D: 11	D: 7	D: 13	D: 8	D: 8	D: 15
35%	23%	42%	26%	26%	48%	39%	16%	45%	35%	16%	48%	32%	19%	48%	32%	19%	48%	29%	26%	45%	32%	23%	45%	35%	23%	42%	26%	26%	48%
31			31			31			31			31			31			31			31			31			31		
Maturity	**Interest**	**Aptitude**	**Opportunity**	**Acquisition**	**Diversity**	**Cognition**	**Satisfaction**	**Approach**	**Recommendation**
I have been able identify the experiences of my audience.	I made the learner's interest at the core of what I do.	I was able to integrate the leaner's experience.	I was able to capitalize on the learner's strengths.	I was able to identify effective methods for my audience.	I have accommodated to the differences in the groups.	I was able to intellectually stimulate the leaner.	Overall, the training session was interesting.	The materials and methods used were effective.	I would love to work with this group again.
Trainer									
SD:	SD:	SD:	SD:	SD:	SD:	SD:	SD:	SD:	SD:
D:	D:	D:	D:	D:	D:	D:	D:	D:	D:
N:	N:	N:	N:	N:	N:	N:	N:	N:	N:
A:	A:	A:	A:	A:	A:	A:	A:	A:	A:
SA: 1	SA: 1	SA: 1	SA: 1	SA: 1	SA: 1	SA: 1	SA: 1	SA: 1	SA: 1
0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1
0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%

Maturity	Interest	Aptitude	Opportunity	Acquisition	Diversity	Cognition	Satisfaction	Approach	Recommendation
-35% -23% 58%	-26% -26% 52%	-39% -16% 55%	-35% -16% 52%	-32% -19% 52%	-32% -19% 52%	-29% -26% 55%	-32% -23% 55%	-35% -23% 58%	-26% -26% 52%

Admin: Jalal Mouti EC 2018 **Assistant:** Adel B.

Table 51 – Corporation PreECT

Corporation – PreECT (Group Feedback)

The female audience scored less than its male counterpart in terms of the following ECT principles; interest, acquisition, cognition and satisfaction. Yet, the striking the difference is the score of 38% on the acquisition principle, which suggests that the female audience did not feel that their trainer has been effective in transmitting knowledge and experience. The male audience on the other hand scored less than their female counterparts on the ECT principles of maturity, opportunity, diversity, approach and recommendation. The most noticeable difference is at the principles of opportunity where the male audience scored 40% in comparison to a 56% for the female audience (see figure 33).

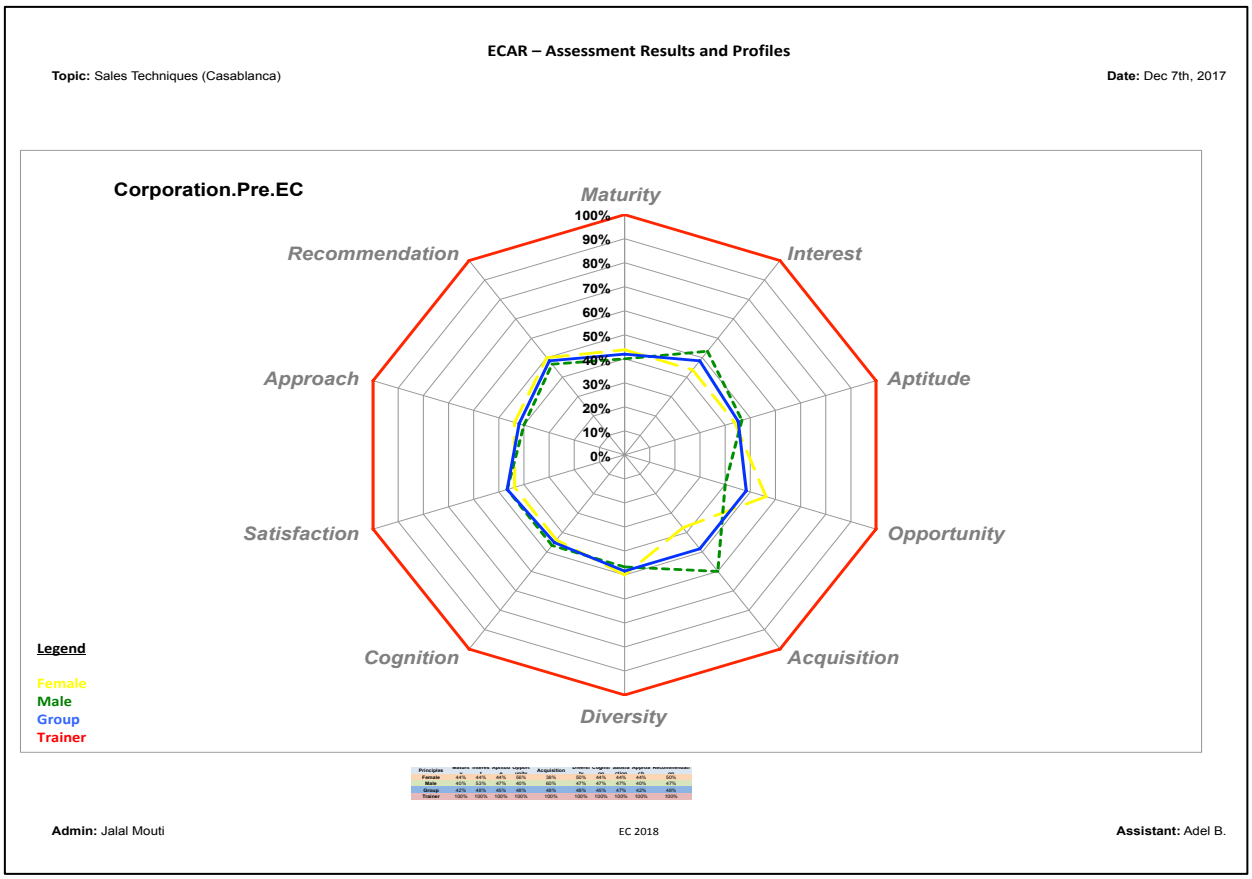

Figure 33 – Corporation PreECT

Corporation – PostECT

The EC training with Ms. Majda highlighted the importance of all the ECT principles and the trainer agreed that they are essential for a pleasant learning environment. Hence, the trainer's performance and feedback made sure to consider all the principles and this is apparent in the trainer's score of the ten principles (Figure 34).

The group's feedback PostECT demonstrate an improvement on the ECT principles and more particularly the approach by 26% increasing from (42% to 68%), satisfaction by 25% increasing from (45% to 70% and recommendation for the trainer by 26% increasing from (48% to 74%) see (Table 48).

The ECAR (Assessment Results and Profiles) conducted PostECT suggest that the trainer should make more effort to address the female's audience needs on a range of ECT principles including maturity, interest, aptitude, acquisition, diversity, cognition and satisfaction. On the contrary the male audience's feedback clearly posit that they were a bit more comfortable with the trainer's approach on most ECT principles, yet provided less recommendation for the trainer. Such feedback has been shared with the trainer to capitalize on the strengths and improve and develop areas of inefficiencies (Figure 34).

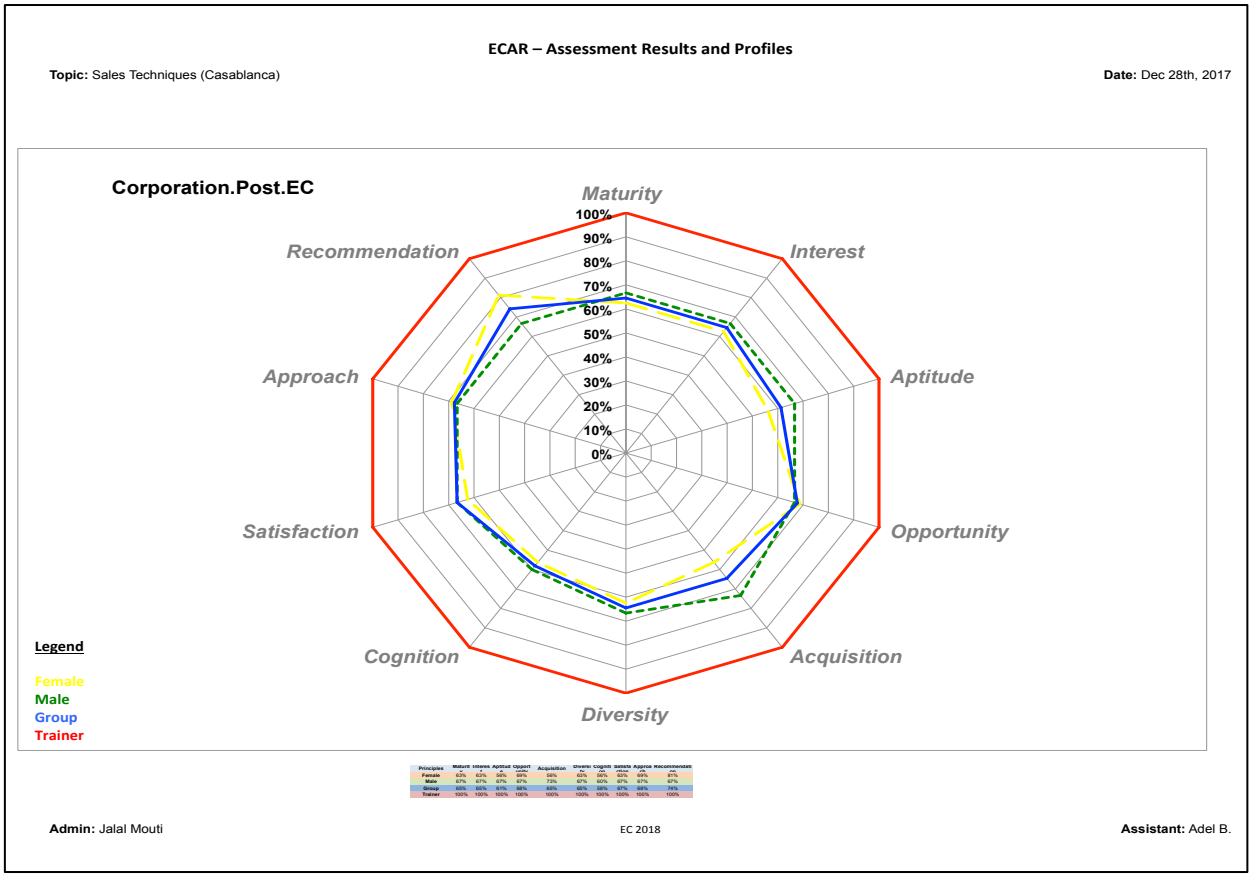

Figure 34 – Corporation PostECT

School

The Setting

The Egg Concept Assessment (ECA) was conducted on December 1st, 2017 after a training session a college in Rabat. The topic of the training was about sales promotion management delivered to an audience of 22 college students (9 females and 13 males). The trainer is a male with 3 years of experience in teaching college level courses.

School – PreECT (The Trainer Profile)

The ECAR (Assessment Results and Profiles) conducted prior to training Mr. Adam on how to use the Egg Concept Training (ECT) revealed the following results.

The trainer neglected the importance of integrating the maturity of learners' in terms of their experiences and how it relates to the topic they are learning about based on the **maturity** principle. Also the trainer did not consider the importance of integrating the learner's experiences according to **aptitude** principle and did not engage in intellectually stimulating the leaner based on the **cognition** principle (see table 52).

ECAR – Assessment Results and Profiles

Topic: Sales Promotion Management (1st Year Master - Rabat) **Date:** Dec 1st, 2017

Trainer:	Adam W.	M	13
Audience:	22	F	9

Environment			
School	Corporation	Association	eLearning

Maturity	Interest	Aptitude	Opportunity	Acquisition	Diversity	Cognition	Satisfaction	Approach	Recommendation
The trainer has been able to identify what I already know.	The trainer understands why I am here.	The trainer appreciates what I already know.	The trainer has been able to identify my strengths.	The trainer has been effective in transmitting knowledge and experience.	I feel I have been appreciated in terms of opinions and background.	The trainer has been able to simplify difficult concepts.	Overall, the training session was interesting.	The materials and methods used were effective.	I would recommend this trainer again.
Female									
SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA
2 4 3 2 2	1 2 4 4 2	2 4 2 3 2	2 3 4 2 2	1 2 3 3 4	4 2 2 3 2	2 2 3 3 3	2 3 2 4 2	2 2 4 3 2	1 3 3 3 3
6 3 4	3 4 6	6 2 5	5 4 4	3 3 7	6 2 5	4 3 6	5 2 6	4 4 5	4 3 6
67% 33% 44%	33% 44% 67%	67% 22% 56%	56% 44% 44%	33% 33% 78%	67% 22% 56%	44% 33% 67%	56% 22% 67%	44% 44% 56%	44% 33% 67%
13	13	13	13	13	13	13	13	13	13
Male									
SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA
2 1 4 2	1 3 3 2	1 1 4 2 1	2 3 2 2	2 2 3 2	1 3 2 2 1	1 2 2 3 1	1 2 4 2	1 2 4 2	1 2 4 2
2 1 6	1 3 5	2 4 3	2 3 4	2 2 5	4 2 3	3 2 4	1 2 6	1 2 6	1 2 6
15% 8% 46%	8% 23% 38%	15% 31% 23%	15% 23% 31%	15% 15% 38%	31% 15% 23%	23% 15% 31%	8% 15% 46%	8% 15% 46%	8% 15% 46%
9	9	9	9	9	9	9	9	9	9
Group									
SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA
2 6 4 6 4	1 3 7 7 4	3 5 6 5 3	2 5 7 4 4	1 4 5 6 6	5 5 4 5 3	3 4 5 6 4	2 4 4 8 4	2 3 6 7 4	1 4 5 7 5
8 4 10	4 7 11	8 6 8	7 7 8	5 5 12	10 4 8	7 5 10	6 4 12	5 6 11	5 5 12
36% 18% 45%	18% 32% 50%	36% 27% 36%	32% 32% 36%	23% 23% 55%	45% 18% 36%	32% 23% 45%	27% 18% 55%	23% 27% 50%	23% 23% 55%
22	22	22	22	22	22	22	22	22	22
Maturity	**Interest**	**Aptitude**	**Opportunity**	**Acquisition**	**Diversity**	**Cognition**	**Satisfaction**	**Approach**	**Recommendation**
I have been able identify the experiences of my audience.	I made the learner's interest at the core of what I do.	I was able to integrate the leaner's experience.	I was able to capitalize on the learner's strengths.	I was able to identify effective methods for my audience.	I have accommodated to the differences in the groups.	I was able to intellectually stimulate the leaner.	Overall, the training session was interesting.	The materials and methods used were effective.	I would love to work with this group again.
Trainer									
SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA
1	1	1	1	1	1	1	1	1	1
1 0 0	0 0 1	1 0 0	0 0 1	0 0 1	0 0 1	1 0 0	0 0 1	0 0 1	0 0 1
100% 0% 0%	0% 0% 100%	100% 0% 0%	0% 0% 100%	0% 0% 100%	0% 0% 100%	100% 0% 0%	0% 0% 100%	0% 0% 100%	0% 0% 100%

Maturity			Interest			Aptitude			Opportunity			Acquisition			Diversity			Cognition			Satisfaction			Approach			Recommendation		
64%	-18%	-45%	-18%	-32%	50%	64%	-27%	-36%	-32%	-32%	64%	-23%	-23%	45%	-45%	-18%	64%	68%	-23%	-45%	-27%	-18%	45%	-23%	-27%	50%	-23%	-23%	45%

Admin: Jalal Mouti EC 2018 **Assistant:** Asmaâ S.

Table 52 – School PreECT

School – PreECT (Group Feedback)

The female audience portrayed a lack of the trainer's ability to identify what the female audience already knows as stated by the **maturity** principle; similarly the trainer struggled to identify the strengths of the female audience based on the opportunity principle. The results of the PreECT suggest the complaints of the male audience on the majority of the ECT principles such as; maturity, interest, aptitude, opportunity, acquisition, diversity, cognition and the overall satisfaction with the training (see figure 35).

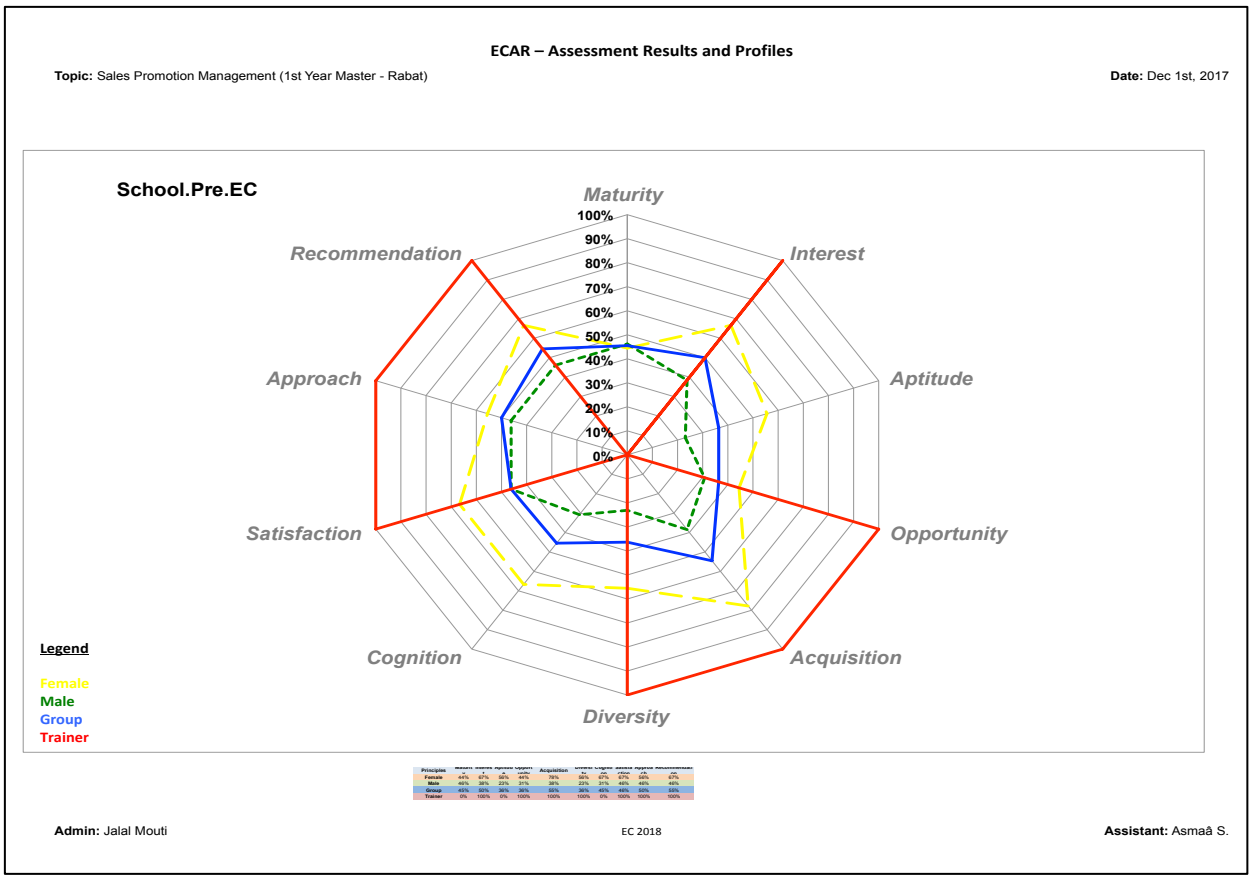

Figure 35 – School PreECT

School – PostECT

The EC training with Mr. Adam highlighted the importance of all the ECT principles and the trainer agreed that they are essential for a pleasant learning environment. Hence, the trainer's performance and feedback made sure to consider all the principles and this is apparent in the trainer's score of the ten principles (Figure 36).

The group's feedback PostECT demonstrate an improvement on the ECT principles and more particularly the approach by 18% increasing from (50% to 68%), satisfaction by 18% increasing from (55% to 73% and recommendation for the trainer by 18% increasing from (55% to 73%) see (Table 48).

The ECAR (Assessment Results and Profiles) conducted PostECT suggest that the trainer should make more effort to address the male's audience needs on a range of EC principles including interest, aptitude, acquisition, diversity and cognition which was clearly portrayed on the male audience' feedback on satisfaction, approach and recommendation for the trainer. On the contrary the female audience's feedback clearly posit that they were a bit more comfortable with the trainer. Such feedback has been shared with the trainer to capitalize on the strengths and improve and develop areas of inefficiencies (Figure 36).

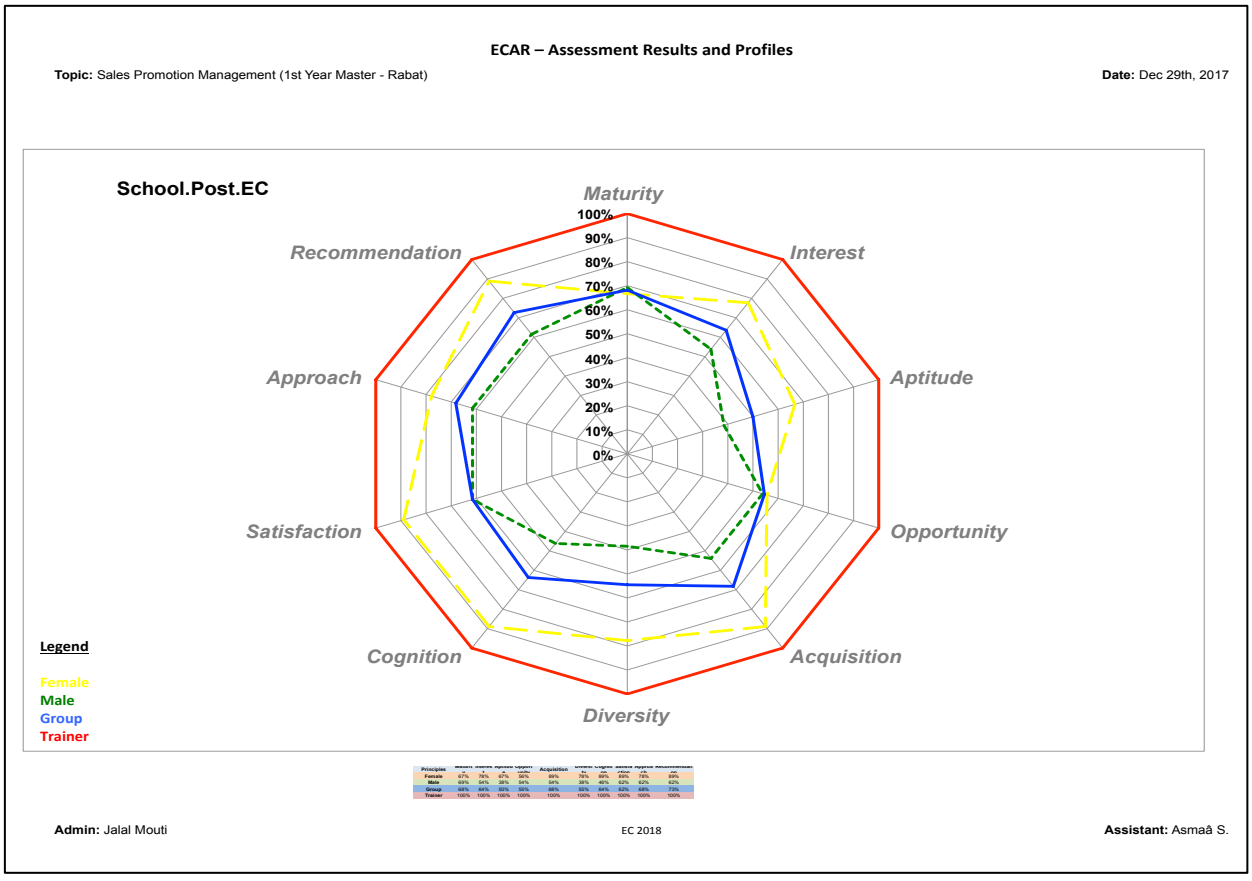

Figure 36 – School PostECT

5.3 Impact by Audience

The following sections will address the impact of the ECT on the mixed audience, which means the females and males combined as a group or learners. The readings of the findings will follow through the principles one by one and consider the readings of the findings as they are.

Mixed Audience

Principles	Association	eLearning	Corporation	School
Maturity	23%	20%	23%	23%
Interest	23%	24%	17%	14%
Aptitude	27%	20%	16%	14%
Opportunity	23%	16%	20%	19%
Acquisition	19%	16%	17%	13%
Diversity	18%	16%	17%	19%
Cognition	14%	16%	13%	19%
Satisfaction	18%	20%	25%	18%
Approach	23%	24%	26%	18%
Recommendation	27%	16%	26%	18%

Table 53 – ECT Impact on a Mixed Audience

Maturity

(The trainer has been able to identify what I already know)

The ECT has an impact on the audience of the different environments in differing ways; the **maturity** of the learning helped the trainer to do their jobs and it has been equally appreciated by the audience of the Association, Corporation and School but a slight difference for the eLearning environment at 20%. The maturity principle suggests the highest increase for the school environment and the second highest for the association and eLearning audiences.

Interest
(The trainer understands why I am here)

The **interest** principle has an impact of 23-24% on the association and eLearning audiences and a 14-17% on the school and corporation audiences. The **aptitude** principle suggests the highest increase for the eLearning audience and second highest for the association audience, which suggests that when the trainer demonstrates interest in their audience, the results improved accordingly.

Aptitude
(The trainer appreciates what I already know)

The audience of the association is the one who experienced the highest increase in appreciation for their trainer's integration of what they already know, at 27%, which is highest increase after the ECT. The eLearning audience also suggests a 20% increase in the **aptitude** principle. Its also worth to note that for the association audience the **aptitude** principle is the one that marked the highest increase in effect and the second highest for the eLearning audience. This in part is attributed to the way the trainers integrated this principles after receiving the ECT.

Opportunity
(The trainer has been able to identify my strengths.)

The association audience appreciates the **opportunity** principle at 23% as the second highest increase. Moreover, the corporation audience suggests a 20% increase and the school audience at 19%, which are considerable increases on this principle. The trainers that identified the audience' strength have managed to have an impact on their audiences and facilitated the progression of the training and this is clear on the scores of the **interest** principle which is closely linked to the **opportunity** principle.

Acquisition

(The trainer has been effective in transmitting knowledge and experience)

The audiences of the association and corporation felt that their trainers were effective in transmitting knowledge and experiences at 19-17% and the school and eLearning audiences at 13-16%. These slight increases remain important even though they have not reached 20% increase but as long as they have surpassed 15% for at three audiences which prove that the principle of **acquisition** increased relatively in accordance with the **cognition** principle.

Diversity

(I feel I have been appreciated in terms of opinions and background)

The increase of the **diversity** principle is felt for all audiences starting at 16% but the highest score is marked for the school audience who seemed to appreciate the interest of the trainer in terms of their opinions and backgrounds. For the most part, the **diversity** principle remains appreciated somewhere between 16 to 19% for all audiences.

Cognition

(The trainer has been able to simplify difficult concepts)

The **cognition** principle's score suggest two sets of results; the corporation and association audience where the improvement reached 13,14% and the eLearning and school audience with the score of 16,19%. The common aspect of the first group is that they do not necessarily expect the trainer to simply difficult concepts and the second group might feel that the trainer is expected to do so. However, the improvement score starting from 13 to 19% remains significant.

Perception of trainers from a mixed audience

The sections that follow will present the findings of the perception of the mixed audience on the training more particularly the principles of satisfaction with the training session, the perception on the effectiveness of the materials and methods used as well as the recommendation for the trainer.

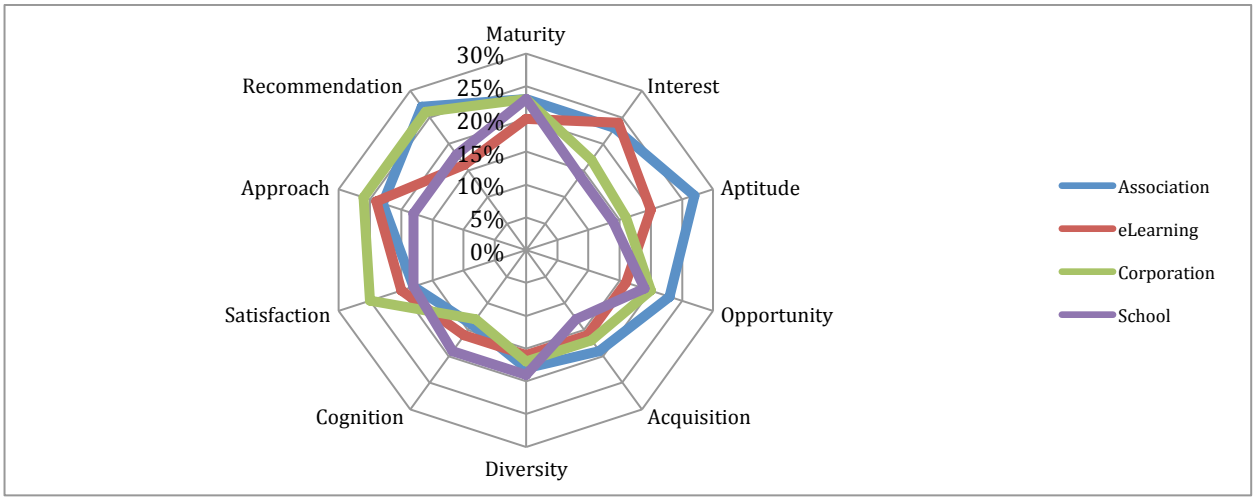

Figure 37 – ECT Impact on a Mixed Audience

Satisfaction

(Overall, the training session was interesting)

The perception that the training session was interesting increased by 18 % for the association and school audience and by 20% for the eLearning audience and a striking increase of 25% by the corporation audience. This suggests the impact of the ECT on the trainers to deliver an overall satisfactory learning experience for a diverse audience. The highest increases of satisfaction are remarkable for the eLearning audience and striking for the corporation audience.

Approach
(The materials and methods used were effective)

The material and methods used have judged favorably after using the ECT; the audience of the association increased its satisfaction with the approach by 23% and the eLearning audience by 24% and the corporate audience by 26% and the school's audience by 18%. The approach clearly received some positive appraisal as a result of introducing the ECT.

Recommendation
(I would recommend this trainer again)

The audience that offered the highest recommendation for their trainers after receiving the ECT is the one from the association, followed by the corporate audience and the school's students and the eLearning audience. The association's audience equally linked the satisfaction with the trainer with the way the trainer utilized their aptitude. And the eLearning audience did so in accordance with how the trainer draw on their perception of opportunity, the trainer's effectiveness of transmitting knowledge and experience as well as the extent to which the trainer has been able to simply difficult concepts along with how the trainer appreciated their opinions and background. The corporate audience offered their highest increase of satisfaction for the approach used and relied on that to offer their recommendation for the trainer. The school's audience, linked their recommendation for the trainer with their overall satisfaction with training session and also the approach employed by the trainer.

Female Audience

The following sections will address the impact of the ECT on the female audience. The readings of the findings will follow through the principles one by one and consider the readings of the findings as they are.

Principles	Association	eLearning	Corporation	School
Maturity	31%	16%	19%	23%
Interest	24%	25%	19%	11%
Aptitude	31%	25%	12%	11%
Opportunity	23%	17%	13%	12%
Acquisition	16%	17%	18%	11%
Diversity	23%	17%	13%	22%
Cognition	16%	16%	12%	22%
Satisfaction	16%	25%	19%	22%
Approach	23%	25%	25%	22%
Recommendation	31%	16%	31%	22%

Table 54 – ECT Impact on the Female Audience

Maturity

(The trainer has been able to identify what I already know)

The female audience of the association seems to be the one who were the most satisfied with the way their trainer has been able to identify what they already know. Based on their 31% increase on the **maturity** principle, it seems that they link it with their overall **recommendation** for the trainer. The eLearning female audience also linked the **maturity** principle with the **recommendation** and also **cognition** principles. The corporate female audience seems to value the maturity principle and link it with the **interest**, and overall **satisfaction** with the training session. The female school audience suggests that they value the maturity principle more than the rest of the other principles.

Interest
(The trainer understands why I am here)

The female audiences of both the association and eLearning confirm to appreciate the way their trainers' understanding of their reasons for being at the training. The corporate female audience demonstrate a 19% increase on the interest principle and the female' school audience an 11% increase. Overall, the eLearning female audience is the one that appreciate the **interest** principle the most.

Aptitude
(The trainer appreciates what I already know)

A significant increase in the perception of the female audience of the association on how their trainer appreciates what they already know and this was an increase of 31%. This audience linked this increase in the same way to their recommendation for their trainer. The female eLearning audience posits their highest increase is at the **interest** and **aptitude** principles and they are directly linked to **satisfaction** with the training session at 25% increase. The female audience of the corporate and school environments show a little over 10% increase on the aptitude principle.

Opportunity
(The trainer has been able to identify my strengths)

The female audience of the association shares a high increase of 23% of how their trainer has been able to identify their strengths. And the rest of the audiences from the other three environments record an increase starting at 12% and up to 17%, which remains a marginally important increase in terms of the trainer's performance on this particular principle.

Acquisition

(The trainer has been effective in transmitting knowledge and experience)

The female audiences of the association, eLearning and corporate environments have all suggested an increase of 15% in terms of how their trainers have been effective in transmitting knowledge and experience. The female school's audience experienced an 11% increase on the **acquisition** principle and that is attributed to the PreECT score, which was at 78%. Therefore, such increase is significant in every perspective.

Diversity

(I feel I have been appreciated in terms of opinions and background)

The impact on the diversity principle could be classified into two groups, the corporate female audience and the eLearning female audiences who shared a 13% and 17% increase and the second group who suggest a 22-23% increase. Such results should be linked back on how the trainer of the association environment increased performance from 8% to 31% by adopting the EC and the same case goes for the school trainer who improved from 56% to 78%. The increases of the first group are important since the trainers were positioned at 50% during the PreECT score.

Cognition

(The trainer has been able to simplify difficult concepts)

The female audience of the association, eLearning and corporation increased their satisfaction of how their trainers simplified difficult concepts by reaching a percentage higher than 50% with an increase starting at 12% and reaching up to 16%. School, female audience however increased their satisfaction on the cognition principle by 22%. All of this means that the trainers managed to improve their performance on simply difficult concepts of their respective female audiences.

Perception of trainers from the female audience

The sections that follow will present the findings of the perception of the female audience on the training more particularly the principles of satisfaction with the training session, the perception on the effectiveness of the materials and methods used as well as the recommendation for the trainer.

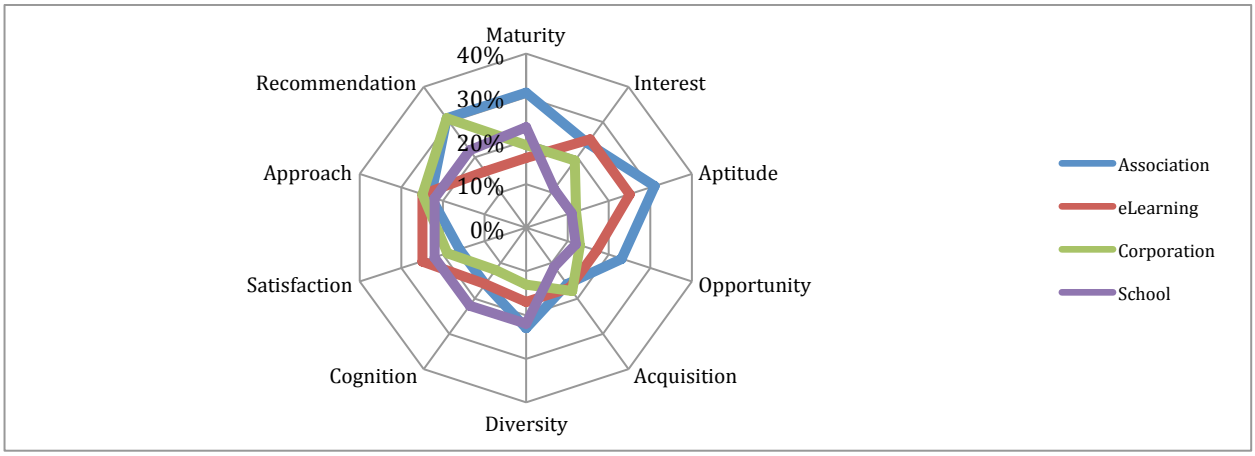

Figure 38 – ECT Impact on a the Female Audience

Satisfaction

(Overall, the training session was interesting)

The female audience of the association increased their satisfaction by 16% reaching up to 54% of the total female audience. And the rest of the female audiences from the remaining three environments suggested an increase starting from 19% reaching up to 25% which place their satisfaction with the overall training somewhere higher than 60% reaching up to 89% as in the case of the school female audience.

Approach
(The materials and methods used were effective)

The materials and methods used were judged to be effective by the total female audience throughout the four environments. The increase of the perception of the females on the **approach** principle increased starting at 22% reaching up to 25% for the female audience of the eLearning and corporation. This suggests that the EC training had a positive impact on the female audience in general.

Recommendation
(I would recommend this trainer again)

The female audience of the association linked their increase in recommendation of the trainer with the appreciation of their **maturity** and **aptitude** principles at 31% increase. The eLearning female audience linked recommending their trainer with the maturity, and cognition principles at 16%. Furthermore, the female corporate audience linked their recommendation of the trainer somewhat with the approach used at 31% while the school female audience improved their recommendation by 22% linking it to at least five other ECT principles.

Male Audience

The following sections will address the impact of the ECT on the male audience. The readings of the findings will follow through the principles one by one and consider the readings of the findings as they are.

Principles	Association	eLearning	Corporation	School
Maturity	11%	24%	27%	23%
Interest	22%	23%	14%	16%
Aptitude	23%	16%	20%	15%
Opportunity	22%	16%	27%	23%
Acquisition	23%	16%	13%	16%
Diversity	11%	16%	20%	15%
Cognition	21%	16%	13%	15%
Satisfaction	23%	16%	20%	16%
Approach	23%	24%	27%	16%
Recommendation	22%	15%	20%	16%

Table 55 – ECT Impact on the Male Audience

Maturity

(The trainer has been able to identify what I already know)

The male audience of the association shows an appreciation for the **maturity** principle even with already 67% appreciation of the PreECT. This audience increased by 11% PostECT. As for the remaining male audience increased their perceptions starting at 23% for the school male audience, 24% of the eLearning male audience and a 27% for the corporate male audience.

Interest

(The trainer understands why I am here)

The association and eLearning male audiences increased their perception of the **interest** principle by 22% and 23% respectively. However, the male audiences of the corporate and school environments increased their perception of the **interest** principle by 14% and 16% respectively which still remain important especially for the male school audience who rose from an initial 38% PreECT to a 54% PostECT.

Aptitude
(The trainer appreciates what I already know)

The male audience of the association and corporation show an appreciation of how their trainers capitalized on what they already know; the learner shared an increase up to 23% PostECT. Equally important is how the male audience of the eLearning and school environments who rose from an initial score of 38% and 23% on the **aptitude** principle to a 54% and 50% respectively. The highest score for the **aptitude** principle from the four environments is recorded for the corporate male audience.

Opportunity
(The trainer has been able to identify my strengths)

The male learners from all four environments demonstrate high interest in how their trainers have been able to identify their strengths. For example the association male audience valued the opportunity principle along with the **interest** and **recommendation** principles and the best indicator is how the association male audience shifted to an 89% score. The eLearning and school male audiences shifted from a 38% and 31% to reach up to 54%. As for the corporate male audience increase their score by 27% to reach a 67% score on the opportunity principle.

Acquisition
(The trainer has been effective in transmitting knowledge and experience)

The acquisition principle saw an increase that transitioned from a 33% and 38% for the association, eLearning and school male audience to reach up to over 54% and reaching up to 56%. The corporate audience, however, increase by 13% from a 60% to a 73% on the acquisition principle PostECT. The association male audience scored the highest increase on the acquisition principle amongst other principles they rated.

Diversity

(I feel I have been appreciated in terms of opinions and background)

The corporate male audience feels more appreciated in terms of their opinions and background with an increase of 20%. Similarly, the association and eLearning male audiences moved from a 33% and 38% to a 44% and 54% increasing by 11% and 16% accordingly. The male audience of the school portrayed the lowest score on the diversity principle PreECT and eventually experiences an increase of 15% reaching up to a 38% satisfaction with the diversity principle.

Cognition

(The trainer has been able to simplify difficult concepts)

The **cognition** principle reached up to 65% and a little over 60% for the association, eLearning and corporate male audiences who expressed their opinions of how the ECT trainers have been able to simply difficult concepts. The school male audience suggested an increase of 15% on the **cognition** principle and reached up a score of 46% which has evolved from a 31% PreECT.

Perception of trainers from the male audience

The sections that follow will present the findings of the perception of the male audience on the training more particularly the principles of satisfaction with the training session, the perception on the effectiveness of the materials and methods used as well as the recommendation for the trainer.

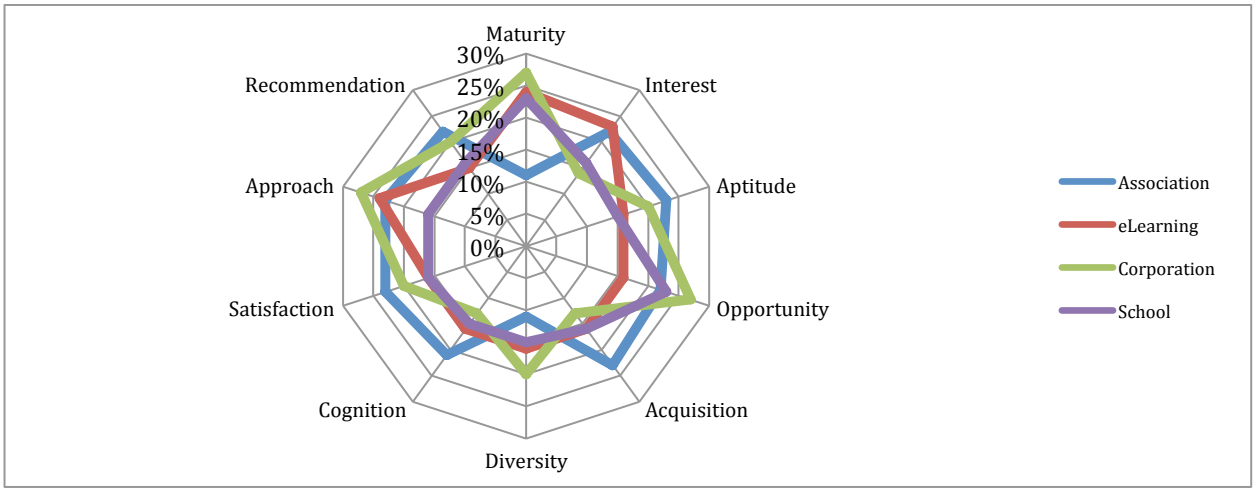

Figure 39 – ECT Impact on a the Male Audience

Satisfaction

(Overall, the training session was interesting)

The male audience portrayed similar opinions with regards to satisfaction with the overall training session; all of who increased their **satisfaction** principle from higher thirty percent to the sixty percent range. The increase on this principle PostECT started at 16% for the eLearning and school male audience and at 20% for the corporate male audience and reached up to 23% for the male association audience. The male audience of the association linked their overall satisfaction with the approach and also recommended the trainer accordingly. The same situation occurred for the male eLearning and school audience who rated their satisfaction with the second highest increase and liked it to the approached of the trainer.

Approach
(The materials and methods used were effective)

The male audience reached a consensus on their perception of the effectiveness of the materials and methods used. Starting from a 23% increase for the male audience of the association and a 24% for those of the eLearning and 27% for the corporate male audience. The 16% of the school male audience is still a significant increase because it is based on the 46% PreECT score which was enhanced as a caused of receiving the EC training and the male audience of the school rated that increase favorably with a 16% evolution.

Recommendation
(I would recommend this trainer again)

The male audience tends to recommend the trainer less than their female counterparts and this was more apparent with the score of the association and the corporate environments. This leads to another observation which has to do with the two groups of recommendations that emerged; the association and corporate male audience with a 20% to 22% increase and the eLearning and school male audiences that rose by 15% and 16% on their recommendation score for their trainers PostECT.

5.4 Impact on Trainers

Under the various settings and characteristics of the trainers; the ECT proved to be feasible to implement whether by experienced or inexperienced trainers operating under different environments with different audiences.

Environment	Sample	Audience		Trainer	Approach			Satisfaction			Recommendation		
		Female	Male		PreEC	PostEC	Diff	PreEC	PostEC	Diff	PreEC	PostEC	Diff
Association	(N = 22)	13	9	Ismail K. (Male)	41%	64%	**23%**	41%	59%	**18%**	41%	64%	**23%**
	Percentage in Class	59%	41%	10 Years of Experience									
eLearning	(N = 25)	12	13	Ahmed S. (Male)	36%	60%	**24%**	40%	60%	**20%**	48%	64%	**16%**
	Percentage in Class	48%	52%	5 Years of Experience									
Corporation	(N = 31)	16	15	Majda B. (Female)	42%	68%	**26%**	45%	70%	**25%**	48%	74%	**26%**
	Percentage in Class	52%	48%	8 Years of Experience									
School	(N = 22)	9	13	Adam W. (Male)	50%	68%	**18%**	55%	73%	**18%**	55%	73%	**18%**
	Percentage in Class	41%	59%	3 Years of Experience									
Audience	**(N = 100)**	**50**	**50**	**AVG 6.5 Years of Experience**	**42%**	**65%**	**23%**	**45%**	**66%**	**20%**	**48%**	**69%**	**21%**
	Percentage in Class	**50%**	**50%**										

Table 56 – Trainer's Experience and the ECT impact

Given the summative data provided by the ECT impact on trainers, the relative improvement in performance suggested by employing the ECT has proven an increase under the **Approach** principles somewhere around 20% and also an improvement on the **Satisfaction** with the training starting at 18% and reaching up to 25%. Furthermore, the **Recommendation** of the trainer has been enhanced for all trainers and more particularly for the more experienced ones because the ECT has helped them to pinpoint areas that needed the most improvements. However, the less experienced trainers would have more chance to improve as they practice more ECT.

5.5 Trainers' Interviews PostECT

The Interview with the Association's Trainer (Ismail)

- How can you describe your experience with the ECT?

I feel that the ECT has introduced me to some interesting principles that I have not considered in the past and that I think I will be using the ECT in the future. I am considering referring some of my colleagues to try it as well.

- Ismail: How could you explain the feedback of the female audience PreECT?

To be honest I have completely ignored the importance of several principles of the ECT and it has been reflected through the feedback of the female audience. Maybe I was a little too intimidating and I did not pay attention to how I was delivering my training and the audience was sensitive to my style.

The Interview with the eLearning Trainer (Ahmed)

- How can you describe your experience with the ECT?

It's interesting to use the ECT for teaching my classes I think that I can benefit from it to prepare for my future classes. The ECT principles are useful and insightful and more importantly easy to apply.

- Ahmed: How would you improve the score of recommendation for the trainer in the future?

I believe I should improve my performance on the principles of Opportunity and Approach amongst the rest of the principles. I am considering reviewing my style and reflecting on this experience to change how I plan and deliver my lectures.

The Interview with the Corporate Trainer (Majda)

- How can you describe your experience with the ECT?

I have to admit that I enjoyed the experience of using the ECT in my training and I believe that through its principles it does cover essential elements to training nowadays.

- Majda: How would you explain the improvement of the scores of approach, satisfaction and recommendation for the trainer?

In fact, I have been very motivated to try the ECT principles and go through its phases. I was excited to learn the feedback of the PostECT assessment. I want to keep in touch with the admin to see how this concept develops in the future.

The Interview with the School Trainer (Adam)

- How can you describe your experience with the ECT?

While applying the ECT principles, I got the feeling that the method has been designed by someone who has been teaching for a long time. And the ECT principles are well designed and the processes are methodological.

- Adam: Your scores on the approach, satisfaction and recommendation PreECT were higher than 50%, how would you benefit more from the ECT in the future?

I have actually enjoyed the phases of the ECT and I am considering adopting them during the preparation and delivery of my courses. The ECT has been designed by someone who really understands the concerns of college professors.

The Visualization of all interview responses from the trainers

From a holistic perspective the words used by the trainers to describe their experiences with the ECT (Egg Concept Training) and their take on the particular questions they were asked suggests the following diagram (Figure 40).

Figure 40 – Qualitative Analysis of Trainer's Interview (TagCrowd.com, Steinbock, 2018)

The visual representation of the expressions used by the trainers highlight the following words (Principles, ECT, Considering, Design, Training, and Future). Perhaps if we were to combine these words into one sentence it would output the following:

The ECT principles have been designed with the consideration of future training needs.

5.6 Learners' Interviews PostECT

The table below gathers all the responses to the interview questions and organizes them into responses to each question by learners from the four environments for practical presentation and analysis.

4 Learners	Association (Lina)	eLearning (Amir)	Corporate (Zina)	School (Saad)
Experience How can you describe your experience with the ECT?	*The experience has improved quite a bit the second time we went through it*	*I enjoyed the session we had today, it felt more interesting than in the past*	*This is the best training I ever had because the trainer was positive the whole time*	*Wonderful and fun and I did not want it to end*
Satisfaction How satisfied are you with the training you received today?	*I can say I am more satisfied with the experience than I was the first time*	*Satisfied to the point that I feel it was worth it to take time to learn something new today*	*Extremely satisfied with the experience; the trainer, the content and the delivery of it all*	*The training was excellent and the trainer is a master of what he is doing*
Approach What do you think of the materials and methods used by your trainer?	*The trainer's approach has completely changed, it was very apparent from the way he looked at us to the way he was explain the concepts to us.*	*The content was very relevant and useful to us in the future*	*Majda knew what she was doing and was a natural transiting from one concept to another and using the most suitable activities for each concept*	*Very relevant and interesting and to the point. This is what we need to learn for our future jobs*
Recommendation Would you recommend this trainer again?	*I think I would recommend the trainer as he has proved to understand what we needed to learn the most*	*I would definitely recommend our trainer he is excellent*	*I would always recommend this trainer because she is excellent*	*Without any doubt I would recommend Mr. Adam to others*

Table 57 – Learners Interview Responses PostECT

The Visualization of the interview responses from the learners

The collection of the words used by the learners to describe their experiences with the ECT (Egg Concept Training) and their perspective on questions regarding the learning experience, the approach used (Methods and Materials) as well as the satisfaction with the trainer and recommendation for the trainer produced the following diagram (Figure 41).

Figure 41 – Qualitative Analysis of Learner's Interview (TagCrowd.com, Steinbock, 2018)

The visual representation of the expressions used by the trainers highlight the following words (Concept, Content, Excellent, Experience, Future, Learn, Interesting, Recommend, Relevant, Satisfied, Today, Trainer and Training). Perhaps if we were to combine these words into one sentence it would output the following:

The training today was interesting and the concept was excellent because the training concept involved our experience to learn relevant content. Therefore, I am satisfied with the trainer and I would recommend the trainer in the future.

Summary

Looking into the feedback collected PostECT and PreECT, the findings suggest a number of observations about the ECT:

(1) The ECT is a practical and flexible approach to various environments.

(2) The ECT's principles are SMART.

(3) The ECT's instruments are specific and reflective of the learning experience.

(4) The ECT's profiles are representative and insightful.

(5) The PreECT's feedback provides clear direction of what to improve and develop.

(6) The PostECT's feedback demonstrates progress based on the ECT's impact on the trainer's approach.

(7) The ECT caters to all types of audiences.

(8) The ECT ensures to a great extent an improvement in satisfaction with the learning experience, the approach and recommendation for the trainer.

(9) The ECT proved to be feasible to implement whether by experienced or less experienced trainers operating under different environments with different audiences.

(10) The ECT has potential in the future.

CHAPTER 6

CONCLUSIONS AND DISCUSSION

The organization of this chapter refers back to the research questions and provides an in-depth discussion of how the ECT delivers answers for each.

The subsequent research questions directed the current research:

(1) To what extent does the adoption of the ECT (Egg Concept Training) influence the learner's satisfaction of the learning experience and the approach used as well as recommendation for the trainer?

(2) To what extent does the ECT (Egg Concept Training) encompasses a range of theories and frameworks associated with an improved learning experience?

(3) What is the applicability and feasibility of the ECT (Egg Concept Training) on a variety of settings, environments and contexts?

6.1 Research Question 1

(1) To what extent does the adoption of the ECT (Egg Concept Training) influence the learner's satisfaction of the learning experience and the approach used as well as recommendation for the trainer?

6.1.1 Learner's Satisfaction

The satisfaction with the ECT (Egg Concept Training) has reported agreeable feedback where the female, male and the mixed audiences from the four environments all shared positive input indicating an overall satisfaction with the training session PostECT and describing it as being interesting (Table 58).

Female Audience	*Male Audience*	*Mixed Audience*
The female audience of the association increased their **satisfaction** by 16% reaching up to 54% of the total female audience. And the rest of the female audiences from the remaining three environments suggested an increase starting from 19% reaching up to 25% which place their **satisfaction** with the overall training somewhere higher than 60% reaching up to 89% as in the case of the school's female audience.	The male audience portrayed similar opinions with regards to **satisfaction** with the overall training session; all of who increased their **satisfaction** principle from higher thirty percent to the sixty percent range. The increase on this principle PostECT started at 16% for the eLearning and school male audience and at 20% for the corporate male audience and reached up to 23% for the male association audience. The male audience of the association linked their overall **satisfaction** with the approach and also recommended the trainer accordingly. The same situation occurred for the male eLearning and school audience who rated their **satisfaction** with the second highest increase and liked it to the approaches of the trainer.	The perception that the training session was interesting increased by 18 % for the association and school audience and by 20% for the eLearning audience and a striking increase of 25% by the corporation audience. This suggests the impact of the ECT on the trainers to deliver an overall **satisfactory** learning experience for a diverse audience. The highest increases of **satisfaction** are remarkable for the eLearning audience and striking for the corporation audience.

Table 58 – Learners' Satisfaction with the ECT

The same goes for the feedback from the interviews where the learner from the association suggested being more '*satisfied with the experience than I was the first time*' which means prior to the ECT. The learner from the eLearning environment claimed that '*it was worth it to take time to learn something new*'. Furthermore, the corporate learner posited that they were '*extremely satisfied with the experience; the trainer, the content and the delivery of it all*'. Finally, the student from the school added that '*the training was excellent and the trainer is a master of what he is doing*'. Based on all the feedback shared through the questionnaires and the interviews its safe to claim that the ECT has delivered great satisfaction to the learners.

6.1.2 The Trainer's Approach

The opinion of the audience on the approach of the trainers clearly received some positive appraisal as a result of introducing the ECT. The material and methods used have been judged favorably after using the ECT and this is the common consensus from the majority of the learners from the four environments (Table 59).

Female Audience	*Male Audience*	*Mixed Audience*
The **materials** and **methods** used were judged to be effective by the total female audience throughout the four environments. The increase of the perception of the females on the **approach** principle increased starting at 22% reaching up to 25% for the female audience of the eLearning and corporation. This suggests that the EC training had a positive impact on the female audience in general.	The male audience reached a consensus on their perception of the effectiveness of the **materials** and **methods** used. Starting from a 23% increase for the male audience of the association and a 24% for those of the eLearning and 27% for the corporate male audience. The 16% of the school male audience is still a significant increase because it is based on the 46% PreECT score which was enhanced as a caused of receiving the EC training and the male audience of the school rated that increase favorably with a 16% evolution.	The **material** and **methods** used have judged favorably after using the ECT; the audience of the association increased its satisfaction with the **approach** by 23% and the eLearning audience by 24% and the corporate audience by 26% and the school's audience by 18%. The **approach** clearly received some positive appraisal as a result of introducing the ECT.

Table 59 – Learners' Feedback on the trainer's Approach

Similarly, the feedback from the interviews also suggest that the materials and methods used were effective through the opinion of the association learner; '*the trainer's approach has completely changed*'. The learner from the eLearning environment claimed that '*the content was very relevant and useful to us in the future*' which suggests an improvement on the approach principle. Furthermore, the corporate learner postulated that the '*trainer knew what she was doing and that there was a natural transiting from one concept to another and using the most suitable activities for each concept*'. Finally, the student from the school posited that the approach was '*very relevant and interesting and to the point*' and that '*the content is what the learners need to learn for their future jobs*'. Based on all the feedback shared through the questionnaires and the interviews its safe to claim that the approach suggested by the ECT has been effective through the material and methods.

6.1.3 Trainer's Recommendation

It has been apparent that the recommendation for the ECT trainers was felt based on the feedback from the learner's questionnaire. Different learners associated the recommendation of their trainers with different principles, which suggests a strong link between the effects of the principles on the overall satisfaction with the ECT concept as well as the recommendation for the trainer (Table 60).

Female Audience	*Male Audience*	*Mixed Audience*
The female audience of the association linked their increase in **recommendation** of the trainer with the appreciation of their maturity and aptitude principles at 31% increase. The eLearning female audience linked **recommending** their trainer with the maturity, and cognition principles at 16%. Furthermore, the female corporate audience linked their **recommendation** of the trainer somewhat with the approach used at 31% while the school female audience improved their **recommendation** by 22% linking it to at least five other ECT principles.	The male audience tends to **recommend** the trainer less than their female counterparts and this was more apparent with the score of the association and the corporate environments. This leads to another observation which has to do with the two groups of **recommendations** that emerged; the association and corporate male audience with a 20% to 22% increase and the eLearning and school male audiences that rose by 15% and 16% on their **recommendation** score for their trainers PostECT.	The audience that offered the highest **recommendation** for their trainers after receiving the ECT is the one from the association, followed by the corporate audience and the school's students and the eLearning audience. The association's audience equally linked the satisfaction with the trainer with the way the trainer utilized their aptitude. And the eLearning audience did so in accordance with how the trainer draw on their perception of opportunity, the trainer's effectiveness of transmitting knowledge and experience as well as the extent to which the trainer has been able to simply difficult concepts along with how the trainer appreciated their opinions and background. The corporate audience offered their highest increase of satisfaction for the approach used and relied on that to offer their **recommendation** for the trainer. The school's audience, linked their **recommendation** for the trainer with their overall satisfaction with training session and also the approach employed by the trainer.

Table 60 – Learners' Recommendation for the trainer

The voices shared through the interviews with the learners indicate that the learners agree that they will recommend their ECT trainers and this is apparent with the opinions shared. The association learner shares that they would *'recommend the trainer as he has proved to understand what they needed to learn the most*'. The learner from the eLearning environment appealed that '*they would definitely recommend their trainer because he was excellent*'. Similarly, the corporate learner postulated that she '*would always recommend this trainer because she is excellent*'. Besides, the student from the school posited that '*without any doubt he would recommend the trainer to others*'. Converging all the feedback shared through the

questionnaires and the interviews its safe to claim that the learners agree to recommend the ECT trainers.

6.2 Research Question 2

(2) To what extent does the ECT (Egg Concept Training) encompasses a range of theories and frameworks associated with an improved learning experience?

Considering the principles of the ECT in relation the wide range of literature and frameworks in the learning and leadership of learning domain, the ECT is comprehensive of much of what the previous work of the pioneers and practitioners in the field (Table 61).

Principles	Learner	Trainer	Theories
MT	**Maturity**	**Trigger**	Learning Frameworks (Andragogy, Pedagogy, Heutagogy
II	**Interest**	**Interact**	Leaning Domains (Cognitive, Affective and Psychomotor)
AU	**Aptitude**	**Utilize**	Brain Dominance Perspective
OM	**Opportunity**	**Motivate**	Personality & Experience Perspective
AC	**Acquisition**	**Channel**	How knowledge is acquired (Rationalism Vs. Empiricism)
DI	**Diversity**	**Include**	Modes of learning framework
CC	**Cognition**	**Challenge**	Learning Theories (Behaviorism, Cognitivism, Constructivism)
ST	Satisfaction with training session		Assessment Types (Summative Vs. Formative)
MM	Evaluation of the effectiveness of the materials and methods used during training		Criteria of learning
RE	Recommendation of the trainer		Instructor Characteristics (Table 2)

Table 61 – The ECT and Literature

The section that follow will present a detailed breakdown of how the ECT delivers for the main goals and objectives of a wide range of theories, frameworks and models of effective learning.

6.2.1 Classroom Leadership

The ECT takes on a proactive approach towards classroom leadership where the trainer is encouraged to be a facilitator and a motivator for diversity of people and ideas, which entails taking a social and cultural perspective to the classroom environment (Moos and Tricket, 1974). Furthermore, the ECT also considers the learning classroom from the perspective of organizational characteristics where the educator assumes transformational leadership skills (Kouzes & Posner, 2003) and creates a positive classroom culture inclusive of the diversity of

the learner (cultural, racial, ethnic, and class differences) avoiding all sorts of biases and discrimination during interaction (Weinstein, et al., 2003).

The ECT calls for avoiding cultural gaps that might affect the learner, instead creating a 'culturally relevant pedagogy' (Ladson-Billings, 2001) and 'culturally responsive teaching' (Gay, 2000) and making sure to practice culturally responsive classroom management (Weinstein, et al., 2003). Therefore, it was essential to keep in mind the facilitation of student learning as an effective teaching approach built on the interpersonal and intrapersonal skills as well as a 'sense of self' and 'habits of mind' (Krisko, 2001).

The educator perspective in the ECT was being considered based on the premise that the educator must be helpful and friendly to positively influence the learner's attitude towards learning and achievement in class (Rickards & Fisher, 1996) and create a positive classroom climate and enhance the learner's outcome (Hay McBer, 2000).

6.2.2 Instructor Leadership

The review of the characteristics and common attributes embodied by influential instructors as well as dimensions of excellent teaching was taken at the core of the set of behaviors and attitudes encouraged by the ECT. The connection made between teaching and leadership was highlighted at every step of the process of the ECT to reinforce the influence of the educator as a leader in the classroom (Pounder, 2006). As well as the educator displaying transformational skills to enhance students' learning and creating a positive classroom climate to establish 'routines for desired behavior' (Munthe, 2003).

The range of instructor' characteristics explored in Table 2 sought to pinpoint areas of influential instructors which concluded the importance of being flexible in terms of the process and environment of teaching to motivate learners (Ruddell, 1995)

6.2.3 Modes of Learning Framework

The ECT sought to address the various components of the modes of learning framework in terms of being inclusive of the concerns addressed for sequential, communal, independent and collaborative learning as well the leadership of learning which must be well-defined, well-structured and entrepreneurial while seeking to develop the learner's social intelligence (Elmore, 2014). The summative table for the leaders of learning framework addressed the concerns of contemporary learning issues but also was taken into consideration in the development and design of the ECT to capture the design and organization of learning.

6.2.4 The Criteria of Learning

The application of the ten principles of the ECT focuses a great deal on the fact that learning occurs though experience and endures over the time of the interaction that's taking place in the classroom or learning environment, and eventually results in a change as highlighted by the criteria of learning of Schunk (2012).

The change suggested by the ECT includes a range of personal and professional new behaviors, skills, attitudes that the learner gets to experience and adopts based on the topics covered and the style of the trainer. Furthermore, the main purpose of the ECT is to sustain the acquired new skills, strategies, and behaviors in ways where the learner enjoys what is being learned and is an active participant if not the creator of the content (Bandura, 1969). Therefore, the role of the ECT trainer is to ensure a quality-learning environment in order for learning to be sustained for a long time through rich interactions and meaningful experiences (Schunk, 2012).

6.2.4 Knowledge Acquisition

The ECT considers the manner in which people learn at the core of its principles by including the two positions of Epistemology; the *Rationalism* and *Empiricism*. This is emphasized in the creation of the materials and methods used in teaching new knowledge and skills to the ECT audience. For example, the activities of the ECT stress on the importance of including experimentation of concepts and experiencing of how - for example - leadership is manifested in real life business settings (Empiricism). On the other hand, other activities make use of the aptitudes of the learners in order to integrate it to associate theories to practical accounts (Markie, 2004). Therefore, the ECT considers both the behaviorist and cognitivist schools of thoughts.

As for the transmission, acquisition, accretion, and emergence methods of learning, the ECT suggests the implication of the learner in what they learn and get them emotionally involved and make learning relevant to them as recommended by the acquisition approach. Also, the ECT considers the accretion method where the learner is engaged in a gradual subliminal process of adopting new skills and knowledge and also a range of ECT principles include the motivation of the learner and diversity of people and ideas in order to motivate the learners to include their personal interest. Furthermore, the emergence method is employed to actively involve the learner in demonstrating the capacity of analysis, synthesis and problem solving in order to form new meanings and reach their own conclusions (Siemens, 2005).

6.2.5 Learning Theories

The ECT takes on an active approach towards the most prominent learning theories where knowledge is demonstrated through actions similar to the behaviourists approach, through experience just as advocated by the constructivists methodology and also to rich and pleasant social context and interactions as suggested by the cognitive approach.

As far as learning is concerned, the ECT enhances the quality of the response of the learner as part of the '*shaping*' procedure of the behaviourists approach to facilitate positive reinforcement. Moreover, the ECT considers cognitivsim by engaging the learner into a process of active discovery while at the same time respecting the particularities of the learners to gain independence in search for meaning and gain confidence to work in a collaborative setting.

Motivation is another aspect emphasized by the ECT where the learner is seeking a rewarding experiences and producing appropriate responses accordingly (*behaviorism*) also the learner is involved and engaged all along the process of learning to invest effort to reach desired outcomes, and reach an intrinsic satisfaction based on the exchange of goals (*cognitivists approach*). In addition, the constructivism approach is also considered where the learner is gaining an understanding of their current capabilities and seeking to develop according to the social context and is motivated both intrinsically and extrinsically as a response to the environmental stimuli.

The ECT seeks to produce an environment of tangible positive reinforcement to generate and reproduce desirable behaviors and accommodate the knowledge, skills and competencies of the learner and seek to promote learning through tutoring and mentoring all through a supportive environment for the learner to gain confidence and the necessary skills to learn in a group and share the accumulated knowledge with other learners.

6.2.5 Learning Frameworks

As per the learning frameworks, the ECT takes a clear stand and supports the Andragogy approach where the learner assumes a sense of direction and engages in a participative way of communicating, and the learner is encouraged to practice problem-solving and researches, participates, debates and exchanges ideas, concepts and experiences (Knowles, 1980). The ECT also advocates for the learner being challenged so they can experience higher levels of independence and '*intellectual stimulation*' (Bass, 1985). Besides, the ECT calls for experimentation and experiencing through hands-on experience so learners can learn by doing. Moreover, the ECT encourages mutual learning between the educator and the adult learner where the classroom is supposed to feel like a learning-community and that the educator is also learning from the learners, as much as they are teaching them. Consequently, the ECT seeks to respect the choice of the learner to be there at a particular time and place to learn a particular topic which hints to the ECT' trainer that the learner needs to learn new, interesting and most importantly useful knowledge, tools and techniques drawing on the learner-centered approach to tailor to the learner's major, domain, specialty, job or whatever their purpose might be (Knowles, 1980).

Heutagogy, however, has also been considered through all the ECT principles where learning is self-determined and learners themselves bring in their capabilities in a proactive process towards learning what is useful to their experiences and required by their domains. Hence, the ECT' trainer is to assume a facilitator role who seeks to provide guidance and resources rather than fully control the learning process. The ECT trainer is confident enough to engage in direct negotiation of what should be learned and how it will be learned (Hase & Kenyon, 2000). Besides, the ECT takes into consideration that the learner should be aware of their preferred learning style but also should combine other capabilities and accommodate to the changing face

of education and complexities of today's work environment (Bhoryrub et al., 2010). Consequently, the ECT trainer should assume enough confidence to realize that through the ECT there will be little control and structure of the learning environment and more learner maturity and autonomy (Canning, 2010). Such maturity and autonomy of the learner is developing in sync with their cognitive development and progresses from competency to capability development (Hase, 2009).

6.2.6 Learning Domains

The ECT frames its principles around the learning that take place as the learner experiences new things and assimilates information and use it in everyday life. The range of activities that the ECT advocates, take a proactive approach towards the design and implementation of the learning outcomes within the cognitive, affective and psychomotor domains, which are translated into the acquisition of knowledge, attitude and skills that a learner develops throughout a learning experience. The cognitive domain is addressed into the problem-solving activities, which contribute to the intellectual development of the learner. Hence, walking the learner from the simplest forms of thinking to more complex ones; these activities however, build on each other in order to progress to the next stage (Anderson and Krathwohl, 2001). The affective domain, however, is also invoked to develop the learner's self-confidence and interpersonal skills where emotional growth is essential for acquiring new attitudes based on newly experienced feelings and emotions (Krathwohl et al., 1964). Furthermore, the psychomotor and/or kinesthetic domain is translated into the application of experiential learning through manual or physical activities where the ECT learner is practicing ways to sustain the learning experience (Harrow, 1972). Essentially, the ECT ensures the proper design and implementation of the learning experience through adequate assessments and measurement of learning goals and effective transition from basic to more complex and difficult concepts (Bloom et al., 1956),

6.2.7 Learning Styles

The ECT takes a careful stand when it comes to the individual learning preferences as raised by a number of theories and frameworks that suggest typologies of how learners prefer and are more or less receptive to. The main reason behind such a careful consideration for typologies of learning preferences lies in the fact that the educators should never be satisfied with framing the learner into one of the taxonomies and completely rely on what they suggest. Because Brain-based learning theories would suggest merely considering how people are born and how their innate capacities would limit their abilities as suggested by Sperry's (1967) Split Brain Theory, The McCarthy's (1987) 4MAT System, The Gregorc' Model (1985), and the Hermann Brain Dominance Instrument (1991). However, ECT educators should seek to explore a range of abilities to use all aspects of the brain to perform various tasks and develop new capacities. Instead, the ECT is more flexible to deal with the personality and experience perspective to learn which has been addressed in a number of models and frameworks such as the VARK Model of Fleming (1992), the Kolb's (1984) Learning Style Inventory, Honey-Mumford's (1982) Learning Style Model, Felder-Silverman's (1988) Individual Learning Preferences Continuum and Myers-Briggs's (1995) MBTI's model. Such stand should also be capitalized on to explore the preference for learning in terms of how the learner perceives information, processes it, presents it, organizes and understand it and uses it to make decisions. However, ECT' educators should demonstrate self efficacy to motivate the learner to integrate their preferences and differences into a inclusive learning experience where the learners explores new ways and methods to develop as a learner and as a human being.

6.2.8 Assessment Types

The ECT considers the summative and formative assessments along with the assessment during learning in order to recycle back the feedback collected into a more improved and developed future learning (Forester, 2009). The ECT operates with the principle that there is nothing such a perfect experience, therefore, flexibility is key in considering the inputs of the learner into what constitutes beneficial and interesting to them (Duke, 2009). Consequently, the ECT conducts the PreECT as a form of a **diagnostic** assessment to take place prior to learning. Then, the **formative** assessment should take place during the learning and the **summative** assessment to be conducted after the learning and feedback is to be collected all along the learning process and experience. Therefore, the PostECT is the form of the ECT to conduct the summative assessment.

6.3 Research Question 3

(3) What is the applicability and feasibility of the ECT (Egg Concept Training) on a variety of settings, environments and contexts?

6.3.1 ECT's Applicability

The ECT suggest to be pertinent to a wide variety of environments including the ones involving face-to-face interactions such as classrooms and training sessions within corporations, associations and a wide range of educational institutions and also for eLearning trainings. On the same note, the ECT could be used by experienced and less experienced trainers, teachers, educators, social workers, and human resource specialist for any type of coaching to a divers audience. Furthermore, the use of assessments such as the PreECT and PostECT render the effectiveness of the ECT more practical based on the outcome and feedback which helps pinpoint areas of improvement and development.

The fact that the ECT makes use of a straightforward process including a set of phases with well defined activities and procedures prove that the trainer is encouraged to conduct a pleasant training experience with the minimum doubt for effective performance. Consequently, the ECT principles which are inspired from contemporary challenges of learning and which are also tightly linked to prominent learning theories and frameworks provide enough support for the applicability of the ECT concept. Therefore, the ECT is a learner-centered approach to training.

6.3.2 ECT's Feasibility

There a number of elements that recommend the feasibility of the ECT; starting with its scope which focuses on a learner-centered approach. In addition, the ECT does not cost a great deal of financial resources except for training the trainer on planning, delivering and assessing their performance and its also based on MS. Office applications which are widely available. Furthermore, the ECT is easy to use because it requires less experience and its quick to conduct and to collect feedback and it delivers real-time results.

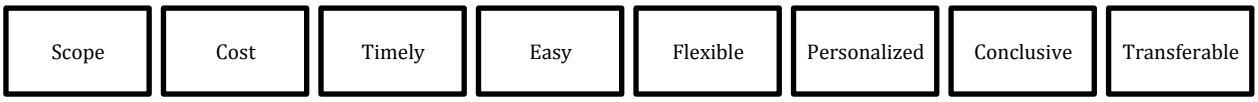

Figure 42 – ECT's Feasibility

Other attractive aspects of the ECT is that its personalizable per topic and very adaptable to the context where its conducted either in terms of; language, concerns, diversity to name a few. The ECT offers a great deal of flexibility to educators and trainers to be creative, innovative and involve their convergent and divergent thinking styles to delivery their personalized content. Other qualities of the ECT is that its conclusive of the different perspectives involved in the learning experience such as that of the trainer, the learner, the gender of the learner and also the various principles of the ECT focus on a wide range of perspectives and sensitive areas in learner-centered environments. Moreover, the ECT is transferable to a wide range of organizational and it should offer a wide range of possibilities to deliver to the strategic planning of the institutions where its implemented, being that to enhance its staff's capabilities or assess its trainers' effectiveness or to improve the quality of its academic programs.

6.4 ECT Limitations

Amongst the various limitations to mention is the small sample size, which could perhaps be viewed as a limitation for the current study where only one hundred respondents and four trainers have participated. Therefore, it could be somewhat argued that the extent of the credibility and generalization of the current study requires further testing. Yet, given the nature of the study, which belongs to the qualitative research approach that accepts a sample size based on 'informational needs' (Polit & Beck, 2012).

The ECT has not been tested in different contexts other than college level education, corporate training, eLearning sessions and training in associations. Therefore there is not enough data to support or deny its effectiveness and applicability in other settings as listed in the table below.

Context	Potential Challenges
K 12 Schools	Has not been tested in the listed contexts therefore the extent of applicability has not been verified yet.
Single-gender Schools	
Religious Schools	
Sports Education	
Medical Schools	
Arts Schools	

Table 62 – Potential ECT Limitations

Furthermore, the ECT does not provide any guarantees of improved scores or any reflection on grades. However, the impact on the improvement of learners' satisfaction with the learning experience and the recommendation for the methods and materials as well as the trainer has all been favorable as a cause of implanting the ECT.

Conclusion

The current research was conducted to provide concrete answers to the research questions which aimed to verify the extent to which the adoption of the ECT influences the learner's satisfaction of the learning experience and the approach used as well as the recommendation for the trainer. Moreover, it was also the aim of the research to establish the relationship between the ECT and a range of theories and frameworks associated with an improved learning experience. In addition, the research sought to verify the applicability and feasibility of the ECT) on a variety of settings, environments and contexts. Consequently, the research outcome established solid arguments to the suggested research questions through the findings of the research as well as through the empirical review of a wide range of relevant literature surrounding the effectiveness of schools, classrooms and educators. In addition to the review of important aspects of learning in terms of theories, frameworks, domains, styles and types of learning.

The findings of the research went a step further to establish the foundation of a promising training concept, which was designed as a learner-centered approach that provides a great amount of details in terms of process, procedures and activities as well as guidelines for successful planning, delivery and assessment.

Therefore, this research has given birth to the ECT, which is a practical and flexible training approach that caters to all types of audiences in various environments. The strength of the ECT is rooted in its SMART principles and also its instruments, which are specific and reflective of the learning experience. Furthermore, the ECT ensures to a great extent an improvement in satisfaction with the learning experience, the approach and recommendation for the trainer through the PreECT's feedback, which provides clear direction of what to improve and develop

based on representative and insightful profiles. Accordingly, the ECT proved to be feasible to implement whether by experienced or less experienced trainers operating under different environments with different audiences.

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Appendices

Appendix A – Transformational dimensions describing instructor leadership

Descriptions of Transformational Dimensions of Bass (1985) by various authors
Idealized Influence • 'individuals acclaimed not only for their pedagogical excellence, but also for their influence in stimulating change and creating improvement in the schools and socio-economically disadvantaged communities in which they work' (Crowther, 1997) • 'significant contribution to an aspect of social justice in the school or school community' (Crowther, 1997) • 'highly esteemed in the community, particularly among socio-economically disadvantaged individuals and groups' (Crowther, 1997) • 'deep commitment to a set of core values that they were prepared to communicate' (Crowther, 1997). • 'build trust and rapport with colleagues' (York-Barr & Duke, 2004) • 'having high expectations of self' (Ruddell, 1995). • 'teacher leaders influence colleagues without the formal trappings of leadership but by qualities, characteristics and approaches that are reminiscent of the transformational leadership construct' (Pounder, 2006).
Inspirational Motivation • 'recognized by colleagues as very influential in school decision-making processes' (Crowther, 1997) • 'accorded a high level of school-based responsibility by colleagues and the school administration' (Crowther, 1997) • 'displaying an enthusiasm that was contagious, and having an ability to inspire others and raise their expectations (Crowther, 1997). • 'promote colleagues' growth' (York-Barr & Duke, 2004) • 'exemplary classroom instruction (Sherrill, 1999) • 'enthusiastic about subject' (Johnston, 1990) • 'use highly motivating and effective teaching strategies' (Ruddell, 1995) • 'create a feeling of excitement about the subject matter content or skill area they teach' (Ruddell, 1995) • 'having energy and excitement and passion' (Ruddell, 1995)
Individual Consideration • 'nurturers of relationships and models of professional growth'(Silva et al. , 2000) • 'a good communicator and listener' (York-Barr & Duke, 2004) • 'help students with their personal problems' (Ruddell, 1995) • 'exhibit a strong sense of personal caring about the student' (Ruddell, 1995) • 'demonstrate the ability to adjust instruction to the individual needs of the student.' (Ruddell, 1995) • 'being warm and caring' (Ruddell, 1995) • 'are sensitive to individual needs' (Ruddell, 1995) • 'make material personally relevant' (Ruddell, 1995) • 'interpersonal relationships & Personality' (Kane et al., 2004) • 'flexible' (Ruddell, 1995)
Intellectual Stimulation • 'encouragers of change, and challengers of the status quo' (Silva et al. , 2000) • 'developers and modelers of effective forms of teaching' (Harris & Muijs, 2003) • 'challenging and demanding' (Johnston, 1990) • 'place high demands on learners' (Ruddell, 1995) • 'create intellectual excitement' (Ruddell, 1995) • 'research/teaching nexus' (Kane et al., 2004) • 'subject knowledge' (Kane et al., 2004)

Appendix B – Egg Concept Assessment (ECA)

Audience Feedback Form

Date: _____

Trainer: _____ **Topic:** _____

I am a: ( ) Female ( ) Male

Audience: ( ) School ( ) Corporation ( ) Association ( ) eLearning

Please use the five point Likert scale to assess your experience with the training session:

PR	Questions	 Strongly Disagree	 Disagree	 Neutral	 Agree	 Strongly Agree
MT	The trainer has been able to identify what I already know.					
II	The trainer understands why I am here.					
AU	The trainer appreciates what I already know.					
OM	The trainer has been able to identify my strengths.					
AC	The trainer has been effective in transmitting knowledge and experience.					
DI	I feel I have been appreciated in terms of opinions and background.					
CC	The trainer has been able to simplify difficult concepts.					
ST	Overall, the training session was interesting.					
AP	The materials and methods used were effective.					
RE	I would recommend this trainer again.					

EC
2017-2018

Trainer's Feedback Form

Date: _____

Trainer: _____ **Topic:** _____

I am a: ( ) Female ( ) Male

Audience: ( ) School ( ) Corporation ( ) Association ( ) eLearning

Please use the five point Likert scale to assess your experience with the training session:

PR	Questions	 Strongly Disagree	 Disagree	 Neutral	 Agree	 Strongly Agree
MT	I have been able identify the experiences of my audience.					
II	I made the learner's interest at the core of what I do.					
AU	I was able to integrate the learner's experience.					
OM	I was able to capitalize on the learner's strengths.					
AC	I was able to identify effective methods for my audience.					
DI	I have accommodated to the differences in the groups.					
CC	I was able to intellectually stimulate the learner.					
ST	Overall, the training session was interesting.					
AP	The materials and methods used were effective.					
RE	I would love to work with this group again.					

EC
2017-2018

Appendix C – Egg Concept Learner Feedback Form (ECLF)

ECLF – Learner Feedback Form

Topic: _____ Date: _____

Trainer:		( ) F	( ) M
Audience:		( ) F	( ) M

Environment			
School	Corporation	Association	eLearning

MT	**II**	**AU**	**OM**	**AC**	**DI**	**CC**	**ST**	**AP**	**EPRT**
The trainer has been able to identify what I already know.	The trainer understands why I am here.	The trainer appreciates what I already know.	The trainer has been able to identify my strengths.	The trainer has been effective in transmitting knowledge and experience.	I feel I have been appreciated in terms of opinions and background.	The trainer has been able to simplify difficult concepts.	Overall, the training session was interesting.	The materials and methods used were effective.	I would recommend this trainer again.
SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA
1 1 1 1 1	1 1 1 1 1	1 1 1 1 1	1 1 1 1 1	1 1 1 1 1	1 1 1 1 1	1 1 1 1 1	1 1 1 1 1	1 1 1 1 1	1 1 1 1 1
2 2 2 2 2	2 2 2 2 2	2 2 2 2 2	2 2 2 2 2	2 2 2 2 2	2 2 2 2 2	2 2 2 2 2	2 2 2 2 2	2 2 2 2 2	2 2 2 2 2
3 3 3 3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3
4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4
5 5 5 5 5	5 5 5 5 5	5 5 5 5 5	5 5 5 5 5	5 5 5 5 5	5 5 5 5 5	5 5 5 5 5	5 5 5 5 5	5 5 5 5 5	5 5 5 5 5
6 6 6 6 6	6 6 6 6 6	6 6 6 6 6	6 6 6 6 6	6 6 6 6 6	6 6 6 6 6	6 6 6 6 6	6 6 6 6 6	6 6 6 6 6	6 6 6 6 6
7 7 7 7 7	7 7 7 7 7	7 7 7 7 7	7 7 7 7 7	7 7 7 7 7	7 7 7 7 7	7 7 7 7 7	7 7 7 7 7	7 7 7 7 7	7 7 7 7 7
8 8 8 8 8	8 8 8 8 8	8 8 8 8 8	8 8 8 8 8	8 8 8 8 8	8 8 8 8 8	8 8 8 8 8	8 8 8 8 8	8 8 8 8 8	8 8 8 8 8
9 9 9 9 9	9 9 9 9 9	9 9 9 9 9	9 9 9 9 9	9 9 9 9 9	9 9 9 9 9	9 9 9 9 9	9 9 9 9 9	9 9 9 9 9	9 9 9 9 9
10 10 10 10 10	10 10 10 10 10	10 10 10 10 10	10 10 10 10 10	10 10 10 10 10	10 10 10 10 10	10 10 10 10 10	10 10 10 10 10	10 10 10 10 10	10 10 10 10 10
11 11 11 11 11	11 11 11 11 11	11 11 11 11 11	11 11 11 11 11	11 11 11 11 11	11 11 11 11 11	11 11 11 11 11	11 11 11 11 11	11 11 11 11 11	11 11 11 11 11
12 12 12 12 12	12 12 12 12 12	12 12 12 12 12	12 12 12 12 12	12 12 12 12 12	12 12 12 12 12	12 12 12 12 12	12 12 12 12 12	12 12 12 12 12	12 12 12 12 12
13 13 13 13 13	13 13 13 13 13	13 13 13 13 13	13 13 13 13 13	13 13 13 13 13	13 13 13 13 13	13 13 13 13 13	13 13 13 13 13	13 13 13 13 13	13 13 13 13 13
14 14 14 14 14	14 14 14 14 14	14 14 14 14 14	14 14 14 14 14	14 14 14 14 14	14 14 14 14 14	14 14 14 14 14	14 14 14 14 14	14 14 14 14 14	14 14 14 14 14
15 15 15 15 15	15 15 15 15 15	15 15 15 15 15	15 15 15 15 15	15 15 15 15 15	15 15 15 15 15	15 15 15 15 15	15 15 15 15 15	15 15 15 15 15	15 15 15 15 15
16 16 16 16 16	16 16 16 16 16	16 16 16 16 16	16 16 16 16 16	16 16 16 16 16	16 16 16 16 16	16 16 16 16 16	16 16 16 16 16	16 16 16 16 16	16 16 16 16 16
17 17 17 17 17	17 17 17 17 17	17 17 17 17 17	17 17 17 17 17	17 17 17 17 17	17 17 17 17 17	17 17 17 17 17	17 17 17 17 17	17 17 17 17 17	17 17 17 17 17
18 18 18 18 18	18 18 18 18 18	18 18 18 18 18	18 18 18 18 18	18 18 18 18 18	18 18 18 18 18	18 18 18 18 18	18 18 18 18 18	18 18 18 18 18	18 18 18 18 18
19 19 19 19 19	19 19 19 19 19	19 19 19 19 19	19 19 19 19 19	19 19 19 19 19	19 19 19 19 19	19 19 19 19 19	19 19 19 19 19	19 19 19 19 19	19 19 19 19 19
20 20 20 20 20	20 20 20 20 20	20 20 20 20 20	20 20 20 20 20	20 20 20 20 20	20 20 20 20 20	20 20 20 20 20	20 20 20 20 20	20 20 20 20 20	20 20 20 20 20

Admin: _____

EC
2018

Assistant: _____

Appendix D – Egg Concept Assessment Results and Profiles (ECAR)

A Sample Assessment Result

ECAR – Assessment Results and Profiles

Topic: Microsoft Application – Ms. Excel (Rabat) **Date:** Dec 25th, 2017

Trainer:	Ismail K.	M	9
Audience:	22	F	13

Environment			
School	Corporation	Association	eLearning

Maturity	Interest	Aptitude	Opportunity	Acquisition	Diversity	Cognition	Satisfaction	Approach	Recommendation
The trainer has been able to identify what I already know.	The trainer understands why I am here.	The trainer appreciates what I already know.	The trainer has been able to identify my strengths.	The trainer has been effective in transmitting knowledge and experience.	I feel I have been appreciated in terms of opinions and background.	The trainer has been able to simplify difficult concepts.	Overall, the training session was interesting.	The materials and methods used were effective.	I would recommend this trainer again.

Female

SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA
	2	3	4	4	1	1	3	4	4	1	3	3	3	3	2	2	4	3	2	1	2	3	4	3	2	3	4	2	2	1	2	3	4	3	1	1	2	4	5		1	2	5	5
2	3	8			2	3	8			4	3	6			4	4	5			3	3	7			5	4	4			3	3	7			3	3	7			2	2	9			1	2	10	
15%	23%	62%			15%	23%	62%			31%	23%	46%			31%	31%	38%			23%	23%	54%			38%	31%	31%			23%	23%	54%			23%	23%	54%			15%	15%	69%			8%	15%	77%	
13					13					13					13					13					13					13					13					13					13				

Male

SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA
	1	1	4	3			1	4	4		1	3	3	2			1	3	5	1	1	2	3	2	1	2	2	2				2	2	3		1	2	3	3	1	1	2	3	2		1		4	4
1	1	7			0	1	8			1	3	5			0	1	8			2	2	5			3	2	4			2	2	5			1	2	6			2	2	5			1	0	8	
11%	11%	78%			0%	11%	89%			11%	33%	56%			0%	11%	89%			22%	22%	56%			33%	22%	44%			22%	22%	56%			11%	22%	67%			22%	22%	56%			11%	0%	89%	
9					9					9					9					9					9					9					9					9					9				

Group

SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA
0	3	4	8	7	1	1	4	8	8	1	4	6	6	5	2	2	5	6	7	2	3	5	7	5	3	5	6	4	4	1	4	5	6	6	1	3	5	7	6	2	2	4	7	7	0	2	2	9	9
3	4	15			2	4	16			5	6	11			4	5	13			5	5	12			8	6	8			5	5	12			4	5	13			4	4	14			2	2	18	
14%	18%	68%			9%	18%	73%			23%	27%	50%			18%	23%	59%			23%	23%	55%			36%	27%	36%			23%	23%	55%			18%	23%	59%			18%	18%	64%			9%	9%	82%	
22					22					22					22					22					22					22					22					22					22				

Maturity	Interest	Aptitude	Opportunity	Acquisition	Diversity	Cognition	Satisfaction	Approach	Recommendation
I have been able identify the experiences of my audience.	I made the learner's interest at the core of what I do.	I was able to integrate the leaner's experience.	I was able to capitalize on the learner's strengths.	I was able to identify effective methods for my audience.	I have accommodated to the differences in the groups.	I was able to intellectually stimulate the leaner.	Overall, the training session was interesting.	The materials and methods used were effective.	I would love to work with this group again.

Trainer

SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA	SD	D	N	A	SA
				1					1					1					1					1					1					1					1					1					1
0	0	1			0	0	1			0	0	1			0	0	1			0	0	1			0	0	1			0	0	1			0	0	1			0	0	1			0	0	1	
0%	0%	100%			0%	0%	100%			0%	0%	100%			0%	0%	100%			0%	0%	100%			0%	0%	100%			0%	0%	100%			0%	0%	100%			0%	0%	100%			0%	0%	100%	

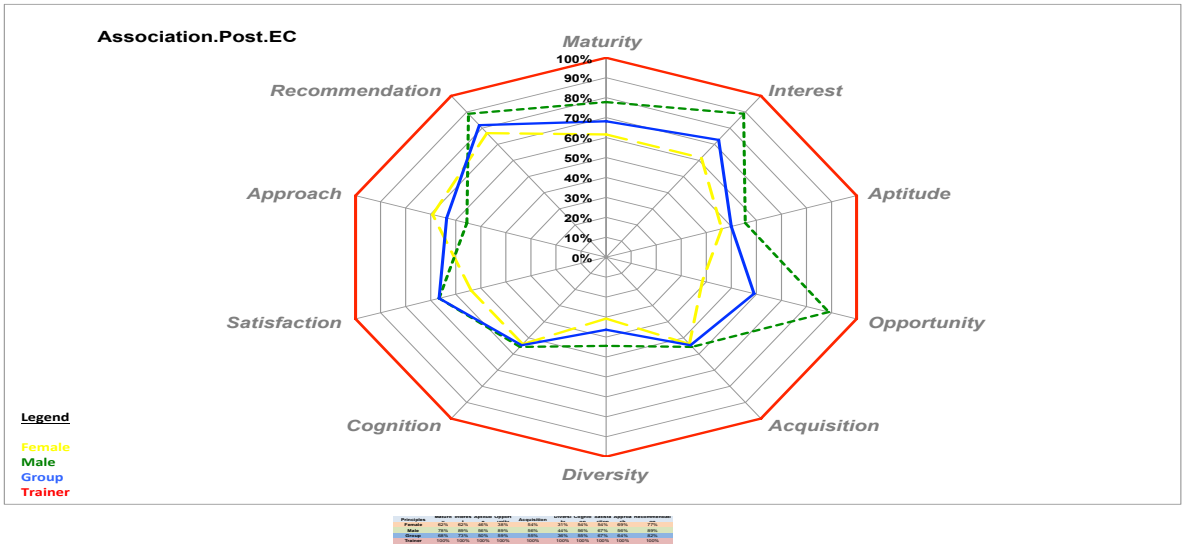
Maturity	Interest	Aptitude	Opportunity	Acquisition	Diversity	Cognition	Satisfaction	Approach	Recommendation
-14% -18% 32%	-9% -18% 27%	-23% -27% 50%	-18% -23% 41%	-23% -23% 45%	-36% -27% 64%	-23% -23% 45%	-18% -23% 41%	-18% -18% 36%	-9% -9% 18%

Admin: Jalal Mouti EC 2018 **Assistant:** Issam A.

A Sample Assessment Profile

ECAR – Assessment Results and Profiles

Topic: Microsoft Application – Ms. Excel (Rabat) **Date:** Dec 25th, 2017



Admin: Jalal Mouti EC 2018 **Assistant:** Issam A.

Appendix E – PostECT – Assessment Results by Environment

ECAR – Assessment Results and Profiles

Topic: Microsoft Application – Ms. Excel (Rabat) **Date:** Dec 25th, 2017

				Environment			
Trainer:	Ismail K.	M	9	School	Corporation	Association	eLearning
Audience:	22	F	13				

Maturity	Interest	Aptitude	Opportunity	Acquisition	Diversity	Cognition	Satisfaction	Approach	Recommendation
The trainer has been able to identify what I already know.	The trainer understands why I am here.	The trainer appreciates what I already know.	The trainer has been able to identify my strengths.	The trainer has been effective in transmitting knowledge and experience.	I feel I have been appreciated in terms of opinions and background.	The trainer has been able to simplify difficult concepts.	Overall, the training session was interesting.	The materials and methods used were effective.	I would recommend this trainer again.

Female	SD	D	N	A	SA
Maturity	2	3	4	4	
Interest	1	1	3	4	4
Aptitude	1	3	3	3	3
Opportunity	2	2	4	3	2
Acquisition	1	2	3	4	3
Diversity	2	3	4	2	2
Cognition	1	2	3	4	3
Satisfaction	1	2	3	4	3
Approach	1	1	2	4	5
Recommendation		1	2	5	5
	2	3	8		
	15%	23%	62%		
	13				
Male					
Maturity		1	1	4	3
Interest			1	4	4
Aptitude		1	3	3	2
Opportunity			1	3	5
Acquisition	1	1	2	3	2
Diversity	1	2	2	2	2
Cognition		2	2	2	3
Satisfaction		1	2	3	3
Approach	1	1	2	3	2
Recommendation		1		4	4
	1	1	7		
	11%	11%	78%		
	9				
Group					
Maturity	0	3	4	8	7
Interest	1	1	4	8	8
Aptitude	1	4	6	6	5
Opportunity	2	2	5	6	7
Acquisition	2	3	5	7	5
Diversity	3	5	6	4	4
Cognition	1	4	5	6	6
Satisfaction	1	3	5	7	6
Approach	2	2	4	7	7
Recommendation	0	2	2	9	9
	3	4	15		
	14%	18%	68%		
	22				

Trainer	Maturity	Interest	Aptitude	Opportunity	Acquisition	Diversity	Cognition	Satisfaction	Approach	Recommendation
	I have been able identify the experiences of my audience.	I made the learner's interest at the core of what I do.	I was able to integrate the leaner's experience.	I was able to capitalize on the learner's strengths.	I was able to identify effective methods for my audience.	I have accommodated to the differences in the groups.	I was able to intellectually stimulate the leaner.	Overall, the training session was interesting.	The materials and methods used were effective.	I would love to work with this group again.
SD										
D										
N										
A				1			1		1	
SA	1	1	1		1	1		1		1
	0%	0%	100%							

	Maturity	Interest	Aptitude	Opportunity	Acquisition	Diversity	Cognition	Satisfaction	Approach	Recommendation
	-14%	-18%	32%	-9%	-18%	27%	-23%	-27%	50%	-18%	-23%	41%	-23%	-23%	45%	-36%	-27%	64%	-23%	-23%	45%	-18%	-23%	41%	-18%	-18%	36%	-9%	-9%	18%

Admin: Jalal Mouti EC 2018 **Assistant:** Issam A.

Table 63 – Association PostECT

ECAR – Assessment Results and Profiles

Topic: Marketing Management (eLearning) **Date:** Dec 27th, 2017

				Environment			
Trainer:	Ahmed S.	M	13	School	Corporation	Association	eLearning
Audience:	25	F	12				

Maturity	Interest	Aptitude	Opportunity	Acquisition	Diversity	Cognition	Satisfaction	Approach	Recommendation
The trainer has been able to identify what I already know.	The trainer understands why I am here.	The trainer appreciates what I already know.	The trainer has been able to identify my strengths.	The trainer has been effective in transmitting knowledge and experience.	I feel I have been appreciated in terms of opinions and background.	The trainer has been able to simplify difficult concepts.	Overall, the training session was interesting.	The materials and methods used were effective.	I would recommend this trainer again.

Female	SD	D	N	A	SA
Maturity	1	2	2	4	3
Interest		1	2	5	4
Aptitude	1	1	2	4	4
Opportunity	1	2	3	3	3
Acquisition	1	1	2	4	4
Diversity	1	1	2	3	5
Cognition	2	1	2	3	4
Satisfaction	2	1	1	4	4
Approach	1	2	2	4	3
Recommendation		2	3	4	3
	3	2	7		
	25%	17%	58%		
	12				
Male					
Maturity	1	2	2	4	4
Interest	1	1	2	5	4
Aptitude	1	3	2	3	4
Opportunity	1	3	2	4	3
Acquisition	1	3	2	3	4
Diversity	1	3	2	4	3
Cognition	1	2	2	4	4
Satisfaction	1	2	3	4	3
Approach	2	1	2	4	4
Recommendation		2	2	5	4
	3	2	8		
	23%	15%	62%		
	13				
Group					
Maturity	2	4	4	8	7
Interest	1	2	4	10	8
Aptitude	2	4	4	7	8
Opportunity	2	5	5	7	6
Acquisition	2	4	4	7	8
Diversity	2	4	4	7	8
Cognition	3	3	4	7	8
Satisfaction	3	3	4	8	7
Approach	3	3	4	8	7
Recommendation	0	4	5	9	7
	6	4	15		
	24%	16%	60%		
	25				

Trainer	Maturity	Interest	Aptitude	Opportunity	Acquisition	Diversity	Cognition	Satisfaction	Approach	Recommendation
	I have been able identify the experiences of my audience.	I made the learner's interest at the core of what I do.	I was able to integrate the leaner's experience.	I was able to capitalize on the learner's strengths.	I was able to identify effective methods for my audience.	I have accommodated to the differences in the groups.	I was able to intellectually stimulate the leaner.	Overall, the training session was interesting.	The materials and methods used were effective.	I would love to work with this group again.
SD										
D										
N										
A										
SA	1	1	1	1	1	1	1	1	1	1
	0%	0%	100%							

	Maturity	Interest	Aptitude	Opportunity	Acquisition	Diversity	Cognition	Satisfaction	Approach	Recommendation
	-24%	-16%	40%	-12%	-16%	28%	-24%	-16%	40%	-28%	-20%	48%	-24%	-16%	40%	-24%	-16%	40%	-24%	-16%	40%	-24%	-16%	40%	-16%	-20%	36%

Admin: Jalal Mouti EC 2018 **Assistant:** Yasmine A.

Table 64 – eLearning PostECT

ECAR – Assessment Results and Profiles

Topic: Sales Techniques (Casablanca) **Date:** Dec 28th, 2017

Trainer:	Majda B.	M	15
Audience:	31	F	16

Environment: School | **Corporation** | Association | eLearning

Maturity	Interest	Aptitude	Opportunity	Acquisition	Diversity	Cognition	Satisfaction	Approach	Recommendation
The trainer has been able to identify what I already know.	The trainer understands why I am here.	The trainer appreciates what I already know.	The trainer has been able to identify my strengths.	The trainer has been effective in transmitting knowledge and experience.	I feel I have been appreciated in terms of opinions and background.	The trainer has been able to simplify difficult concepts.	Overall, the training session was interesting.	The materials and methods used were effective.	I would recommend this trainer again.
Female									
SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA
1 2 3 5 5	1 2 3 5 5	1 2 4 5 4	1 2 2 6 5	2 1 4 4 5	1 1 4 5 5	1 3 3 5 4	2 1 3 4 6	2 2 1 6 5	2 1 7 6
3 3 10	3 3 10	3 4 9	3 2 11	3 4 9	2 4 10	4 3 9	3 3 10	4 1 11	2 1 13
19% 19% 63%	19% 19% 63%	19% 25% 56%	19% 13% 69%	19% 25% 56%	13% 25% 63%	25% 19% 56%	19% 19% 63%	25% 6% 69%	13% 6% 81%
16	16	16	16	16	16	16	16	16	16
Male									
SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA
1 2 2 6 4	1 4 6 4	1 3 1 5 5	1 2 2 5 5	2 2 6 5	1 2 2 6 4	1 1 4 3 6	1 4 4 6	1 2 2 5 5	1 4 6 4
3 2 10	1 4 10	4 1 10	3 2 10	2 2 11	3 2 10	2 4 9	1 4 10	3 2 10	1 4 10
20% 13% 67%	7% 27% 67%	27% 7% 67%	20% 13% 67%	13% 13% 73%	20% 13% 67%	13% 27% 60%	7% 27% 67%	20% 13% 67%	7% 27% 67%
15	15	15	15	15	15	15	15	15	15
Group									
SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA
2 4 5 11 9	1 3 7 11 9	2 5 5 10 9	2 4 4 11 10	2 3 6 10 10	2 3 6 11 9	2 4 7 8 10	3 1 7 8 12	3 4 3 11 10	0 3 5 13 10
6 5 20	4 7 20	7 5 19	6 4 21	5 6 20	5 6 20	6 7 18	4 7 20	7 3 21	3 5 23
19% 16% 65%	13% 23% 65%	23% 16% 61%	19% 13% 68%	16% 19% 65%	16% 19% 65%	19% 23% 58%	13% 23% 65%	23% 10% 68%	10% 16% 74%
31	31	31	31	31	31	31	31	31	31

Maturity	Interest	Aptitude	Opportunity	Acquisition	Diversity	Cognition	Satisfaction	Approach	Recommendation
I have been able identify the experiences of my audience.	I made the learner's interest at the core of what I do.	I was able to integrate the leaner's experience.	I was able to capitalize on the learner's strengths.	I was able to identify effective methods for my audience.	I have accommodated to the differences in the groups.	I was able to intellectually stimulate the leaner.	Overall, the training session was interesting.	The materials and methods used were effective.	I would love to work with this group again.
Trainer									
SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA
1	1	1	1	1	1	1	1	1	1
0 0 1	0 0 1	0 0 1	0 0 1	0 0 1	0 0 1	0 0 1	0 0 1	0 0 1	0 0 1
0% 0% 100%	0% 0% 100%	0% 0% 100%	0% 0% 100%	0% 0% 100%	0% 0% 100%	0% 0% 100%	0% 0% 100%	0% 0% 100%	0% 0% 100%

Maturity	Interest	Aptitude	Opportunity	Acquisition	Diversity	Cognition	Satisfaction	Approach	Recommendation
-19% -16% 35%	-13% -23% 35%	-23% -16% 39%	-19% -13% 32%	-16% -19% 35%	-16% -19% 35%	-19% -23% 42%	-13% -23% 35%	-23% -10% 32%	-10% -16% 26%

Admin: Jalal Mouti EC 2018 **Assistant:** Adel B.

Table 65 – Corporation PostECT

ECAR – Assessment Results and Profiles

Topic: Sales Promotion Management (1st Year Master - Rabat) **Date:** Dec 29th, 2017

Trainer:	Adam W.	M	13
Audience:	22	F	9

Environment: **School** | Corporation | Association | eLearning

Maturity	Interest	Aptitude	Opportunity	Acquisition	Diversity	Cognition	Satisfaction	Approach	Recommendation
The trainer has been able to identify what I already know.	The trainer understands why I am here.	The trainer appreciates what I already know.	The trainer has been able to identify my strengths.	The trainer has been effective in transmitting knowledge and experience.	I feel I have been appreciated in terms of opinions and background.	The trainer has been able to simplify difficult concepts.	Overall, the training session was interesting.	The materials and methods used were effective.	I would recommend this trainer again.
Female									
SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA
1 2 4 3 3	2 4 4 3	1 4 2 3 3	1 3 4 3 2	1 2 2 4 4	2 1 3 4 3	1 1 3 4 4	1 2 2 4 4	1 2 3 3 4	1 2 2 4 4
3 4 6	2 4 7	5 2 6	4 4 5	3 2 8	3 3 7	2 3 8	3 2 8	3 3 7	3 2 8
33% 44% 67%	22% 44% 78%	56% 22% 67%	44% 44% 56%	33% 22% 89%	33% 33% 78%	22% 33% 89%	33% 22% 89%	33% 33% 78%	33% 22% 89%
13	13	13	13	13	13	13	13	13	13
Male									
SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA
4 5	1 1 3 4	1 3 3 2	1 1 4 3	1 1 3 4	2 2 2 3	1 2 3 3	1 4 4	1 4 4	1 4 4
0 0 9	1 1 7	1 3 5	1 1 7	1 1 7	2 2 5	1 2 6	1 0 8	1 0 8	0 1 8
0% 0% 69%	8% 8% 54%	8% 23% 38%	8% 8% 54%	8% 8% 54%	15% 15% 38%	8% 15% 46%	8% 0% 62%	8% 0% 62%	0% 8% 62%
9	9	9	9	9	9	9	9	9	9
Group									
SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA
1 2 4 7 8	0 3 5 7 7	1 5 5 6 5	1 4 5 7 5	1 3 3 7 8	2 3 5 6 6	1 2 5 7 7	1 3 2 8 8	2 2 3 7 8	1 2 3 8 8
3 4 15	3 5 14	6 5 11	5 5 12	4 3 15	5 5 12	3 5 14	4 2 16	4 3 15	3 3 16
14% 18% 68%	14% 23% 64%	27% 23% 50%	23% 23% 55%	18% 14% 68%	23% 23% 55%	14% 23% 64%	18% 9% 73%	18% 14% 68%	14% 14% 73%
22	22	22	22	22	22	22	22	22	22

Maturity	Interest	Aptitude	Opportunity	Acquisition	Diversity	Cognition	Satisfaction	Approach	Recommendation
I have been able identify the experiences of my audience.	I made the learner's interest at the core of what I do.	I was able to integrate the leaner's experience.	I was able to capitalize on the learner's strengths.	I was able to identify effective methods for my audience.	I have accommodated to the differences in the groups.	I was able to intellectually stimulate the leaner.	Overall, the training session was interesting.	The materials and methods used were effective.	I would love to work with this group again.
Trainer									
SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA	SD D N A SA
1	1	1	1	1	1	1	1	1	1
0 0 1	0 0 1	0 0 1	0 0 1	0 0 1	0 0 1	0 0 1	0 0 1	0 0 1	0 0 1
0% 0% 100%	0% 0% 100%	0% 0% 100%	0% 0% 100%	0% 0% 100%	0% 0% 100%	0% 0% 100%	0% 0% 100%	0% 0% 100%	0% 0% 100%

Maturity	Interest	Aptitude	Opportunity	Acquisition	Diversity	Cognition	Satisfaction	Approach	Recommendation
-14% -18% 32%	-14% -23% 36%	-27% -23% 50%	-23% -23% 45%	-18% -14% 32%	-23% -23% 45%	-14% -23% 36%	-18% -9% 27%	-18% -14% 32%	-14% -14% 27%

Admin: Jalal Mouti EC 2018 **Assistant:** Asmaâ S.

Table 66 – School PostECT

Appendix F – Trainers' Interview Questions PostECT

The Interview with the Association's Trainer (Ismail)

- How can you describe your experience with the ECT?
- Ismail: How could you explain the feedback of the female audience PreECT?

The Interview with the eLearning Trainer (Ahmed)

- How can you describe your experience with the ECT?
- Ahmed: How would you improve the score of recommendation for the trainer in the future?

The Interview with the Corporate Trainer (Majda)

- How can you describe your experience with the ECT?
- Majda: How would you explain the improvement of the scores of approach, satisfaction and recommendation for the trainer?

The Interview with the School Trainer (Adam)

- How can you describe your experience with the ECT?
- Adam: Your scores on the approach, satisfaction and recommendation PreECT were higher than 50%, how would you benefit more from the EC in the future?

Appendix G – Learners' Interview Questions PostECT

4 Learners	Association (Lina)	eLearning (Amir)	Corporate (Zina)	School (Saad)
Experience	How can you describe your experience with the ECT?			
Satisfaction	How satisfied are you with the training you received today?			
Approach	What do you think of the materials and methods used by your trainer?			
Recommendation	Would you recommend this trainer again?			

Appendix H – Voluntary Participation Letter

THE EGG CONCEPT TRAINING
(ECT)

PRINCIPAL INVESTIGATOR
Jalal Mouti
Business Department Studies
International University of Leadership
45, Avenue Ouled Said, Bir kacem
Souissi, Rabat. Morocco
Tel: +212 537 75 67 11
Fax: +212 537 75 67 88
E-mail: Mouti@aulm.us

PURPOSE OF STUDY

You are being asked to take part in a research study. Before you decide to participate in this study, it is important that you understand why the research is being done and what it will involve. Please read the following information carefully. Please ask the researcher if there is anything that is not clear or if you need more information.

The purpose of this study is to test a new training concept on a wide range of learners. The ECT (Egg Concept Training) will assess the impact of its ten principles to deliver a pleasant learning experience, and provide a recommendation for the trainer.

STUDY PROCEDURES

Below is the list of all the procedures in chronological order; starting with the survey to evaluate the conditions of the learning prior to using the ECT (Egg Concept Training), which will involve the trainer and the learners. Then, the trainer will be trained to use the ECT, which will be evaluated, at the end of the study to measure the extent to which the ECT is a relevant and effective training method.

Prior to the ECT	Train the trainer to use the ECT
Survey the opinion of learners prior to the ECT using the trainer and audience feedback forms	Explain the purpose of the ECT
Output the training and learner experience profiles	Discuss the need for the EC to deal with the Learning Challenges
Discuss findings and profiles with the trainer	Get the buy-in from the trainer to continue the experimentation
	Train the trainer on using the four phases and activities during a mock up session
	Allow 1 week or enough time till the trainer is ready for the experiment!
	Review the list of activities with the trainer to plan for the EC training
	Administer to the survey to the trainer right after the training session
	Distribute the survey to the audience right after the training session
	Fill out the learner's feedback form
	Fill out the assessment results and profiles form
	Output the training experience profile
	Share the feedback with the trainer
	Conduct a post-assessment interview with the trainer
	Conduct a post-assessment interview with selected learners

RISKS
This research does not intend to cause any harm to anybody in any form or fashion and participation is 100% voluntary you may decline to answer any or all questions and you may terminate your involvement at any time if you choose.

BENEFITS
There will be no direct benefit to you for your participation in this study. However, we hope that the information obtained from this study will contribute to development of a new training concept and provide the body of knowledge with a new approach to training and learning.

CONFIDENTIALITY
Your responses to the questionnaires will be anonymous. Please do not write any identifying information on your questionnaires. Every effort will be made by the researcher to preserve your confidentiality including the following:

- Only trainers' first names will be used on the questionnaire and interview findings
- Only learner's first names will be sued on the interview findings
- Assigning code names/numbers for participants that will be used on all research notes and documents
- Interview transcriptions, and any other identifying participant information will be kept confidential in locked file cabinet in the personal possession of the researcher

Participant data will be kept confidential except in cases where the researcher is legally obligated to report specific incidents. These incidents include, but may not be limited to, incidents of abuse and suicide risk.

CONTACT INFORMATION
If you have questions at any time about this study, or you experience adverse effects as the result of participating in this study, you may contact the researcher whose contact information is provided on the first page. If you have questions regarding your rights as a research participant, or if problems arise which you do not feel you can discuss with the Primary Investigator, please contact the Institutional Review Board at (+212) 537 756 711.

VOLUNTARY PARTICIPATION
Your participation in this study is voluntary. It is up to you to decide whether or not to take part in this study. If you decide to take part in this study, you will be asked to sign a consent form. After you sign the consent form, you are still free to withdraw at any time and without giving a reason. Withdrawing from this study will not affect the relationship you have, if any, with the researcher. If you withdraw from the study before data collection is completed, your data will be returned to you or destroyed.

CONSENT

I have read and I understand the provided information and have had the opportunity to ask questions. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and without cost. I understand that I will be given a copy of this consent form. I voluntarily agree to take part in this study.

Participant's signature _____ Date _____

Investigator's signature _____ Date _____

Appendix I – Permission to Conduct Research (Sample)

March 12, 2018

Dear Campus Administrator:

The purpose of this letter is to inform you that I give Professor **Jalal Mouti** permission to conduct a research which entails distributing a questionnaire at the end of each session to measure the level of professor and students appreciation of the learning experience.

Professor Jalal Mouti will use the help of some designated master students to conduct the questionnaire and the name of these students will be communicated with the administrator prior to conducting the research.

The research process will take place during the following time frame:

December 1st – December 31st (2017)

Please provide the necessary assistance and support to ensure the smooth running of the research.

Sincerely,

Dr. [redacted]
Chief Academic and Operations Officer
[redacted]

Appendix J – Statement of Original Work

I attest that the ideas, experimental work, results, analyses and conclusions reported in this dissertation are entirely my own effort. I also certify that the work is original except where otherwise acknowledged, I have paraphrased, summarized, or used direct quote following the guidelines set forth in the APA Publication Manual.

Jalal Mouti February 25th, 2018