

## The Impact of Using Lean-centered model to Increase the achievement of the Learners in English Language Teaching

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**Abstract**—The suggested Lean centered-model has been designed to increase the achievement of the students in English Language Teaching (ELT). An experimental study was conducted to find the effectiveness of the model in the application of Lean as an innovative method in English language teaching. The participants of the study scored different achievements in both, the control and treatment groups. The end-result of the learners in the experimental group was statistically highly significant in the pre and posttests. The result was also statistically different between the pre-posttests between the two groups. The current model leads the stakeholders of an educational process to finish the syllabus on time, the program finished as it had been planned and resulting a better achievement. The model was a guide to finish the whole program in line with completing every step before starting the next. The lean-centered model helped to meet the needs of the learners. The learners also managed to get high achievements and develop their skills. The students had their roles as the culture of lean allows learners to be an effective part of the process. All the steps were eliminated which existed in the program and added no value to the end-result of the students according to the lean-centered model.

**Keywords**—lean; teaching; model; waste; goals.

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### I. INTRODUCTION

In 1937, Toyota was founded by Kaiichiro to advance his company as he studied the ideas of Henry Ford and W. Edwards Deming. The result was the creation of Toyota Production System from 1948 to 1975 by Taiichi, Ohno, Shigeo, Eiji Toyota and others [1]. Toyota production system is known as lean manufacturing. ‘Just-in-time’ is originally used to call the system, now it is only referring to production manufacturing [2]. Womack stated that lean manufacturing and Toyota Production System used work force and the hours of work four times lesser than the corrupted version of the United States, which were used in 1980s in some manufacturing plants [1].

Lean is a process of continuous improvement, every school needs lean to increase its achievement. In their book, *Optimizing Student Learning*, Ziskovsky and Ziskovskystate that application of lean in education leads a very successful year in terms of learning and teaching. The students learn better and the program can be finished successfully as it is planned [3]. Lean, despite its original methodology, it has been used with different missions in different organizations such as healthcare and government. It has been used in government and healthcare before higher education institutions. Business schools and universities were first in using lean [4]. Lean start up is not just an approach but it is applied more and more world-widely [5]. Clauses in lean startup are based on “build-measure-learn” [6]. A research report focused on five case studies to synthesize how lean was used in higher educations. They reported three advantages were experienced by undertaking lean, it created understanding the needs to change, revise processes, and practices, which had remained untouchable for years. They stated that lean in higher education is in a nascent stage. There are many stories about lean. Some of them may not give a

positive idea of it because lean inadequately has been used as it is a contrast view about lean. It brings endless possibilities in education for improvement [4]. When lean is a part of thinking and doing, even in a small project, the results are favorable [7]. Lean never ends once it starts. It is a recurrent cycle of Plan-Do-Check-Act. It is a scientific method that can be applied to every facets of operation in schools. People do their jobs and they try a new theory. They test to know its appropriateness. If it is good, they apply it and search for a new and better theory to implement. On the contrary, if it does not work as it is expected, they change it and test another theory. Therefore, lean is not an end quest for perfection [8].

It appears that the schools try to implement lean methodology in different levels. All schools have initiatives, which appear to be lean, some of them with very small aims but still want to do more with less. They concluded that lean practices want to eliminate duplicate efforts. It provides success in different projects and levels. Moreover, there are projects wanted to be lean but they could not manage the process appropriately as lean guides or implemented [9]. Lean has been changed as an adoptive ideology in manufacturing to an ideology, which ties all aspects of industries together. It is also important to know about the tools of lean and to know how to apply the tools [10]. Lean is applicable anywhere by anyone because the fundamental ideas of lean are universal [11].

Lean is an adoptive system, which ‘includes many continuously varying parameters. They have inner structures, goals, and relationship with other parameters [12]. As lean an adoptive system but it should be applied very carefully, lean has been changed in a way that the tools are no longer recognizable [1990] and it creates confusion between the scholars and the practitioners [13]. It is very important to know how to apply the tools of lean, it is necessary to explore lean as “fitness to purpose” in the public sectors [14].

Once I asked a school administrator from a top-performing school to explain the problems they face. He said the problem is not that the work is too hard or too much, the problem is that all the tricks which were used in the bag, they do not work efficiently now. He said data driven decision in this regard is misused. The old instructions of the same stuff are thrown to the initiatives at hand. School-based and district-based activities should be honed to produce better results. Schools continuously engage the educational change. The schools need to do what are needed to be done [7]. The prospect of doing more research concerning lean education is strong because in spite of the business continuity in the sectors of higher education, it also creates new linkage with worldwide institutions in education and industry [15]. If the purpose of schools is not redefined clearly, it will be expected to have students who are unable to look at the problems with different perspectives that need high levels of thinking, and then it will be the damage of education and society [16].

Lean wants to eliminate the wastes in a process so the problems, which are clear, will be addressed by lean strategy, such as excessive inventory and excessive motions, etc., and it addresses the data, which are not important. Lean methodology is effective for improving floor space usage and clearness. It reduces cycle time of processes and creates a healthy environment [17]. Lean in education is a program of organizational improvement, which gives power to every worker in a school system to increase personal performance and satisfaction through process improvement. It eliminates the steps which are wasteful, unnecessary or do not contribute value to the work [3]. The fundamental issue of the schools should be examined and it is important to make lean more successful because it tries to increase congruence between actions and mission [16]. To Womack and Jones lean is a superior way to make things by humans, with lower cost, which provides better products [18].

Other institutions of higher education can learn from the successful implementation of lean. The changes of higher education happen because of five primary factors [9];

1. Higher public expectations of what the universities deliver.
2. Parental concerns increase about the quality of education.
3. The emphasis on college ratings.
4. Higher expenses.
5. Student population concerning demographic changes.

## II. METHODOLOGY AND PARTICIPANTS

The current study was conducted using a quasi-experimental study. The dependent variable was the learner's performance in a specific standardized test. This experimental study was conducted in a high school level in Northern Iraq. The test used as a pre-posttest, was Cambridge's Key English Test (KET), which is a proper test and is an appropriate level to A2 level according to the Common European framework of Reference (CEFR). The participants include two groups of students i.e., one experimental group and one control group were taught using lean as an innovative method with the application of the lean-centered model and eliminating the nine wastes in education. The participants of this study were 11th graders at high school level, studying at a coeducational preparatory school in Sulaimaniyah province in Northern Iraq. There were 28 students in the experimental group and 28 students in the control group. All of the students were from the Northern Iraq region and from the same city. The students

were between 16 to 19 years old. There were 16 girls and 12 boys in the control group, 15 girls, and 13 boys in the experimental group.

## III. LEAN THINKING

Lean thinking is shortened as lean, and it is referred to as lean manufacturing, which is sometimes called lean enterprise. It might be called lean for health care or lean for government. It depends on who is selling what [19]. Lean thinking is a management approach for creating a culture of a continuous improvement [20].

A process of five steps was proposed by Womack and Jones in 1996 to direct the manager, and the transformation of lean. There are five principles of lean. First, product family specifies value from the first step to the end user. Second, all the steps are identified in the value stream, then remove all the steps that create no value. Third, facilitate the ways, which add value flow so smoothly. Fourth, the customers pull value from next activity. Fifth, after applying the above-mentioned points, the process is reached a state of perfection and it goes on with no waste [21].

There are concerns that lean application will make the schools standardized or the jobs more 'efficient, or schools work like 'factories'. These ideas do not match the application of lean, still they refer to a non-thinking application of lean [22]. Lean focuses on a continuous improvement, so kaizen is the score tenets of Lean thinking, which means continuous process improvement [23]. Continuous improvement is centered on by a plan to train the workforce effectively and create a culture [24]. Radnor, Walley., Stephens, and Bucci, stated that lean in terms of implementation can be divided into two different types, full and kaizen type. In addition, lean is a repository which methods are chosen from it selectively, as Randor et al. refer to it as a type of Kaizen [25].

## IV. LEAN PRINCIPLES

Lean principles evolved systematically in industry. These principles could be applied to health care quickly, as government and education are not too behind because their waste is equaled by becoming more lean and effective [26]. The principles are in three forms, they are system, which is the process, subsystem that is about skilled people, and tools and technology [27]

### A. System Process

1. Customer defined value should be established to segregate waste from value.
2. Front-load the product development process to find solutions while maximum design 'space' is there.
3. 'Create a leveled product development process flow'.
4. To reduce variation, rigorous standardization is used.

### B. Subsystem: Skilled People

1. To integrate development from start to finish, a chief engineer system is developed.
2. In all engineers, towering technical competence is developed.
3. 'Organize to balance functional expertise and cross-functional integration'.
4. 'Suppliers are fully integrated into the product development system'.

5. Continuous improvement and learning are built.
6. Create a culture that helps improvement and excellence.

### C. Tools and Technology

Before you begin to format your paper, first write and save the

1. Technology is adopted to fit the people and the process.
2. Visual communication to align organization.
3. For standardization and organizational learning, powerful tools are used.

## V. STAGES TO IMPLEMENT LEAN

A journey with four stages of lean implementation fills the gap. They are explained here to show how to navigate lean leadership learning [18].

**Grand Zero:** Searching, realizing and searching for answers to perplex dilemmas like increasing demands for public accountability, reducing resources, or new competition. In lean thinking for School Introductory Seminar Participants complete Tier 1- participants learn.

At this stage, leaders make divisions with this background knowledge to become full partners with the institute. Then they are ready for the next three stages.

**Stage One:** Initiating, leaders begin to teach their personal distributing, the Tier 1 Survey in a 360 manner to those with important responsibilities. The Tier gives a snapshot of the state of the organization. Flinchbaugh and Carlino explain that even the decisions are made by the leader, but they do not have unilateral determination which area to tester incorporate with the lean tools [18]. The leader focuses on one or two primary needs emerging from the Tier 1 survey as a beginning accept, it is called 'unlinked islands of lean operation techniques'.

**Stage Two:** Training, it arms the personal in the organization with local success at this stage, which links these successful areas with the sequence lean tactics. Balle and Belle state the communication strategies embrace the objectives of lean performance, are in motion through the Tier 2, then employ lean tools in the areas needs improvement [18].

**Stage Three:** Sustaining, at this stage the organization is enough strong to bear any persons, processes or problems with trained personnel.

## VI. LEAN MANUFACTURING

Womack and Jones state when Toyota realized that mass production did not work very well, they developed a version of lean. There were two limitations in their mass productions. First, employees were disengaged since they focused on doing the repetitive tasks. Second, it was full of wastes and the level of waste was high [28]. Dell company produces 80 000 computers in 24 hours as a lean enterprise. Dell jettisoned its unnecessary and expensive operations more than a decade ago [18]. Womack and Jones make it sure that lean will be successful when it is implemented in a comprehensive way. There is learning from good thinking and application in lean manufacturing, which can be used in education. If the conceptualization includes the approaches of top-down mandates and standardization, it will be inaccurate [7].

There are four methods in lean manufacturing. The methods are process mapping, 5S, Kanban, and Poka-Yoke. 5S words, all coined by Toyota. They are all Japanese words. The first

one, Seiro, means clearing the area of those items which are not used regularly. The needed items are separated from the clutter. Those items make the work easier, easier to move or improving utilization of space. The second is Seiton, arranges and identifies the items in the area. In that area, all the items should be labeled if the items were not very or enough important, there are not labeled in the area or stay in the area. Therefore, the recognition of suitable tooling, resources, materials, etc. will be clearly visible. The third one is Seiso, focusing on a clean and neat production area by sweeping and picking up regularly, for example daily, biweekly at the end of every shift. This using could be accomplished less than %2 (ten minutes) of the scheduled time. Seiketsu is the fourth one. If the activity remains standard, then the place stays cleaned. The employees will go back to the old ways and the area will not be cleaned if the activities do not become institutionalized during the process. Therefore, Seiketsu is about management discipline. The last one is Shitsuke, it is the responsibility of management to support and make the importance of housekeeping also to show leadership by follow-through and walking the talks [29].

## VII. ORGANIZATIONAL LEARNING

Learning organization as a group of people working together to make their capacities stronger and better to achieve what they care about to Fulmer and Keys. Disciplines, which are needed for learning organizations. They are system thinking, personal mastery, mental models, shared vision and team learning [30]. Organizational learning is a 'routine-based, history-dependent, and target oriented' [31]. Bolman and Deal point to the tension between individual and learning organization, they focus on the system models of Senge, but still they caution that it is hard to sense the relationship between individual and organizational learning [15]. Lean is appropriate as an organizational learning journey. It is applied in a culture while leaders focusing on three main ideas. First, engaging stakeholders in a continuous organizational learning focuses on improvement via the value stream and the elimination of wastes and its roots. Second, to maximize organizational learning and effective results, stakeholders are enjoined. Third, a great respect is displayed towards those who are involved in the organization, like stakeholders, teachers, and leaders [7].

Learning organization does not exist until there are systems of management to record all the points of learning [32]. systems thinking are a very important link between lean and learning organization, and he declares system thinking as a foundational key. In this model, he presented the four disciplines, they are continual mastery, mental models, shared vision, and team learning. Lean methodology is based on some concepts, which are in connections with systems, and system engineering so seeing it as a foundational key is not something very surprising [30].

Lean methodology and learning organization are linked through methods and philosophies. He gives recommendations for those who implement lean in higher education institutions or other institutions [15]:

1. Executive leadership; executive sponsors should understand the complexity of lean and learning organization fits it with short or long term goals. They should instantiate the

improvements and know when they should back off, then the organizations will improve them, providing a culture of trust is a primary objective to enhance the initiatives.

2. Training and development; significant training are involved for staff in lean implementation. Training should include organization learning philosophy and information about how to integrate lean with this, also visualization is important to depict the understanding of lean and learning organization.

3. Knowledge management; lean implementation gives an opportunity to consider the organization handlers the knowledge of management, from easy efforts to difficult efforts.

4. Information technology- IT system should be utilized to ensure creative options and information sharing for collaboration and the sharing of the result. IT leader should remember that Toyota has made their method for decades freely out of the company [11].

5. Project governance- external consultants are employed to start new lean initiatives and to expand the existed ones.

### VIII. LEAN AND EDUCATION

There are many new ways of thinking about education. Different thinking shows different outcomes. They may translate into improved practices slowly or quickly, or they may not [30]. They may do little more than the old ways of doing things [33]. For delivering an excellent education, highly qualified teachers should be put in every class. As public schools invest more money, they should serve the students better [34]. Education is not the same as schooling and much of our education is taken place in schools. Schooling is a circumscribed one, even it may be supervised or a conserving activity. To the young, school is relentless, but our education is not relentless which gives us no rest for good or ill [35]. At the beginning of the nineteenth century, there were ideas, which stood against the idea of education. For some, education carried a threat rather than promise [36]. Popular ignorance was preferred rather than popular learning to maintain social order and national prosperity. It was a view, which became stronger with every passing new year, within two or three decades it was extinct [37]. Through the rest of the century, “the ride of schooled society” was assured [38]. The purpose of education is not to evoke response from the learners, but it is for communicating meaning. The question of how the responses of the learners are organized is raised. Moreover, the purpose of education for Mead, it is not to organize the response of the learner but it is to facilitate the emergence of what Mead calls it as “consciousness of meaning”. It is the difference between the artifacts we use and what these artifacts mean. Then, this makes thinking possible. Because of this, Mead stressed that education is a social process. Education does not present the learners with artifacts just like books and materials. Learners respond to these artifacts and in doing, that gives meaning to them, but the response and the meaning will be idiosyncratic [39].

Lean is not the only system to solve the problems of education but its tools and philosophy are useful in education [7]. Teachers negotiate that tests like high-stakes-tests narrow the curriculum content in a way the teachers focus on the subjects included in the tests, this resulted in the fragmentations of the knowledge. The teachers cannot use the teacher-centered

pedagogies [22]. There is no success for lean implementation without an accommodation and understanding of culture and subculture, which they serve. A main key to make methodology and methods of lean at Toyota possible is a culture of innovation. Lean is overlaid into the present culture by providing thinking, planning and developing of organizational learning [15].

Now higher education concentrates more on improvement rather than accountability, and lean methodology is a central strategy for improvement [40]. In increasing the value and performance of university process, it is shown where the process breaks down when wasted material or time exists. Lean is suitable for improvement [41]. Education is a hot topic in the light of current economic crisis and the needs for a successful and production citizenry [42]. Many organizations have challenged to do more with less. Lean does more with less existed resources. There are nine wastes in education. Waste is anything that does not add value to the process. The wastes in education are [3]:

**1. Over production/effort:** the generation of more information than it is needed at the time, doing it again is not needed or it can be unwarranted changes that are not a part of the process improvement. It also can be doing something, which it is not needed; just wasting time for another needed activity.

**2. Talent:** the failure to recognize or develop in placing a person where they use their skill, ability or knowledge to their fullest to benefit the organization. It can be underutilization or overutilization of the people’s skills.

**3. Motion:** any movement that does not add any value. Physical or electronic movement and transporting people and items, which don’t add any value.

**4. Time:** actions, people and information create idleness when time is used unwisely, such as doing work versus playing games.

**5. Processing/handling:** doing activities which are needed for the end result to be accomplished, unnecessary steps, requirements, reviews and approvals which are mandates but are not necessary.

**6. Assets:** using more resources, books, people, money, inventory, facilities or information than is needed.

**7. Capacity:** In education, the waste of capacity means not using the full abilities of the students, teachers and other staff to achieve the best educational outcomes.

**8. Knowledge:** Waste of knowledge can be poor planning, organization, and communication of information.

**9. Defects:** ‘human errors, honest mistakes, or any number of things that led to work that contains inaccuracies, omissions or requires that it be done again’.

### IX. MODEL ANALYSIS

English language is one of the important factors and keys to combine the whole speakers of the world, so different methods and ways have been used to teach English as a second language. Teaching English for specific purposes (ESP) is crucial and noticeable in English language teaching field. After developing the importance of teaching languages, the term needs analysis appeared in the field. Some needs analysis models investigated in the field.

In the field of ESP, there are different numbers in models of needs analysis such as Munby, McDonough, Hutchinson &

Waters, Robinson, West, Jordan, and Dudley-Evans & St. John [43, 44, 45, 46, 47, 48, 49]. These models aimed to find the needs of the learners. Widdowson has written about the differences between English for specific purposes and English for general purposes. He states that English for specific purposes intends to develop competence, which has been restricted. English for general purpose is aiming to develop general capacity [50]. English for specific purpose is constructed on the needs of the learners and it is a language approach. According to their definition, it includes the learners, the required language, and the context of learning [45].

Language needs analysis has different components. The most important components are Target Situation Analysis, Learning Situation Analysis, and Present Situation Analysis. Target Situation Analysis focuses to find what the students require in an occupational or academic setting [47]. Learning Situation Analysis shows “why the learners” want to learn the language [49]. Present Situation Analysis shows the strength and weakness of the learners. In the field, some writers have designed models to identify the needs of language learners [46]. Munby’s Communicative Syllabus Design is one of the oldest models in the field in 1978. Another model of ESP needs analysis that was designed by Hutchinson and Waters is known as ESP Needs Analysis Model.

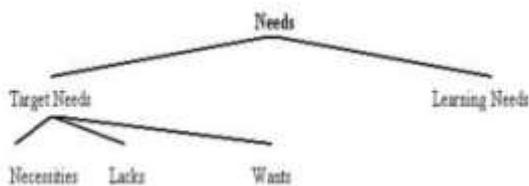


Figure 1. ESP Needs Analysis Model

The necessities are what the learners want to achieve or what their necessities are. “Lacks” are what the practitioners want to find that the students are weak in and they do not have it. “Wants” are what the students want to learn. The needs analysis models concentrate on what the students need [45]. Needs analysis commonly means collecting needed information to develop a curriculum to achieve the needs of a specified group of students [51]. One of the first steps is “needs analysis” in course design. As Munby’s Communicative Syllabus Design in 1978 published, it had been experienced in different situations [51]. Munby provided the terms of participants, communication needs processor, profile of needs, meaning processor, the language skills selector, the linguistic encoder, and the communicative competence specification [43]. A framework was proposed by Hutchinson and Waters as an analysis of learning needs, they are the followings [45]:

1. “Why are the learners taking the course?”
2. “How do the learners learn?”
3. “What sources are available?”
4. “Who are the learners?”

Hutchinson and Waters also state discourse analysis. Before this, they think that pedagogic is the primary factor behind register analysis. Then, they found how the sentences were combined into discourse analysis. The models of Dudley-

Evans and St John 1998, English for Specific Purposes, Needs as Necessities, Lacks and Wants is also shown in.

The following model of lean, which will be proposed in the next section, is closely paid attention to the components of the needs analysis [45].

**The Model**

To apply lean for preparatory classes to increase learners’ achievements, a lean-centered model depending on the analysis of the result and steps of the study is proposed. The data collected through applying lean method in an experimental study for three months in Iraq.

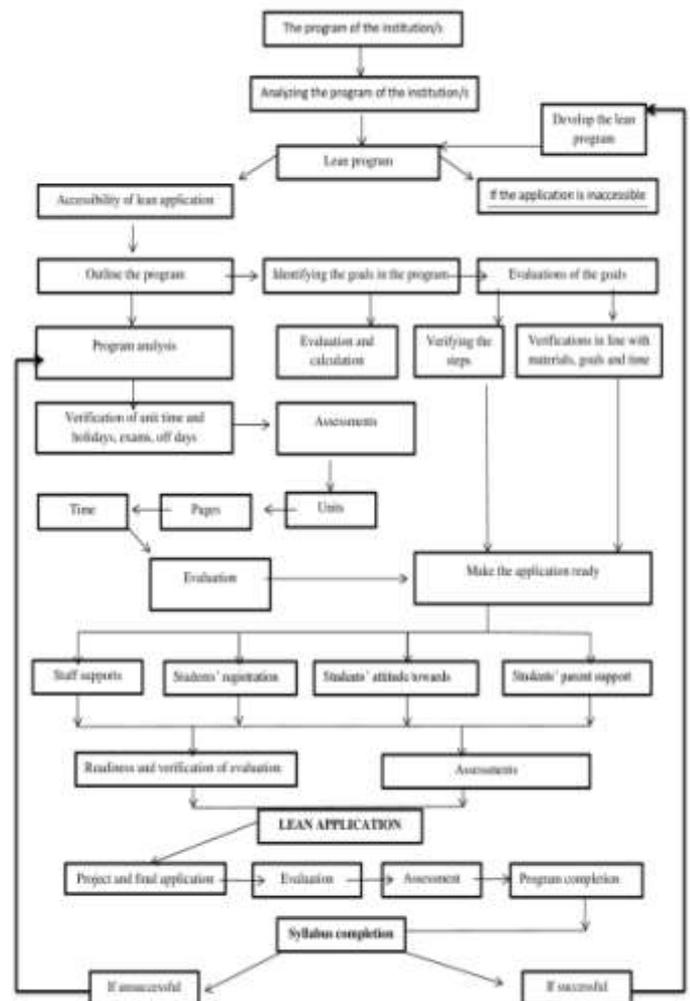


Figure 2. A lean-centered proposed model

The accessibility of lean shows how it is possible to apply lean in a specific field as this study focuses on lean implementation in English language teaching. It is followed by outlining the program as it clarifies the major and identifying the goals in the program. Lean is a very consistent method of different steps. Identifying the goals from the very beginning is the base of the process. The goal is evaluated after it is identified according to the lean process. Another major component of the model is a needs analysis process of the program to identify and verify the duration of time, which is needed to figure out the holidays, including the exams and off days. Assessment of the unit time periods and different sections of the program

enable the researcher to define the objectives and goals. Specifying the goals in the program is strongly related to the program according to the lean practices, sections of the materials with verifying the steps and creating pull connection between them make lean application ready.

When the application of lean as a method is ready, the students' information, registration, expectations, their attitudes toward lean, individual characteristics and students' parent supports need to be considered as a great respect towards the participants. To start the application, verification and assessment play an important role to make it completed. The projects and needed steps of application is evaluated and assessed to make the lean method more effective. In the practices, it involves in completing the program before completing the syllabus but consistent and together.

### **The Shape of the Model**

Lean method helped to recognize the needs of the learners at a co-educational high school students. After having applied lean to increase the achievement of the learners and analyzing the results, it has been understood that lean method as a syllabus design is effective when it includes all the practices and steps of lean in terms of system and principles. Introducing lean method was the starting point of the study because making lean ready to apply is considered as the most important part of phase of the study. Learners of English language want to increase all the skills to make their production better and improve their language. The Model gives a great and effective respect to the learners to make decisions and preferences to accomplish every step of learning before starting the next, in this respect lean method is learner-centered.

### **Course Description**

The experimental study as a course, focused on increasing and developing and achievements in English language teaching. The course primarily focuses on completing the program on time with a better production. Within the course, the principles of lean were used with the elimination of the nine wastes in education as they are nine wastes in order to practice lean vigorously. The wastes are overproduction, talent, motion, time, processing, assets, capacity, knowledge and, defects. Considerable focus was mainly focused on practicing lean to raise students' achievements. This model concentrates on the need of the students to be equipped with the skills of reading and writing and increasing language achievement. To lead the students toward success at high schools or any other departments, lean enables the students to encounter and participate in how the end-result develops by providing them needed construction and information about lean before applying it.

### **Rationale**

Learners beginning English in this course at level A2, usually have a low level of reading and writing. Students in English language schools and department, or learners of English must build a strong base in reading and writing as they are basic academic parts of any languages. Reading and writing are fundamental skills to put thoughts and studies in academic researches. At the global level, English language is the base of business and technology. English is the language of science. Teaching and learning English is a process, which must be

developed and tested to meet the needs of the students. The syllabus based on the needs of the learners and processing lean principles as a method in the experimental study.

### **Goals and Objectives Based on the Model**

Locke states that with complex tasks, learning goals is very crucial for improving performances [53]. Drucker stated, "Objectives are needed in every area where performance and results directly and vitally affect the survival and the personality of the business". Therefore, it lets every team member to have an important role in the program and managing the process successfully [54].

### **Goals of the Program**

The program is designed to

1. prepare the students to increase their achievements and meet their needs.
2. And to comprehend the materials and the course.
3. Develop learner's reading and writing skills.
4. To allow students to be an effective participant of the whole process.
5. To eliminate all the wastes in the program that add no value to the end result.

### **Objective of the Program**

- i. to finish the program on time and resulting a better achievement.
- ii. developing and increasing the end-result.
- iii. completing the whole program.
- iv. completing every step before starting the next.

### **Evaluation**

The test used in this study consists of reading and writing parts. Each part was divided into several different parts. The learners were graded with 60 points for answering the different parts of reading. Each item cost one mark as the reading test was 5 parts. The writing test consisted of 4 parts, at the end, the total mark of the test was 60 points.

### **Required Test**

The required test for this study was Cambridge Key English Test (KET) to find out the level of learner's performances in reading and writing sections. The test is considered as a reliable and authentic test to assess students achievements according to (CEFR). It is a test that has been used in ESL/EFL for putting the students on the test to ensure and assess their ability.

### **Instructional Procedures**

- i. The teacher will teach authentic materials with its practices and exercises.
- ii. All parts of the program are taught following the instructions and practices of lean.
- iii. The learners have great roles from the very beginning of the course and in class activities.
- iv. Students need to develop their reading and writing skills, as the four skills are the basic parts of each program.
- v. To increase the students' skills, the teacher uses the formal language of the authentic program, which is being taught.
- vi. The students during the teaching process collect the ways to improve their skills.

- vii. The students' plans and intentions are important parts of the lessons as they are major parts of the program.
- viii. Expose the students to all the reading and writing parts in the program.

### General Course Requirements

- i. Students' registration.
- ii. Students take pre-tests to find what the next step like in the process is and to find their weak points to be worked on, to assess their goals in accordance with the program.
- iii. Attendance, learners must attend the lessons.
- iv. Materials, the students are given what is needed to accomplish the program, they must attend and bring them into classes.
- v. Follow the instructions of the school staff and objective management.
- vi. The students and teachers must work according to the lean-centered model to complete the program such as exam dates and assignment submission.
- vi. Applying 'post-test' to explore to which extent the needs of students have been met and to assess the end-result increase.

## X. CONCLUSION

The study shed light on the effectiveness of applying Lean as an innovative method with the application of the lean-centered model in English language teaching. The findings point to the importance of implementing this model and its effects on improving the skills performances of the learners. The achievement of the learners in the model was developed in this study depending on the needs of the students in reading and writing. The application was closely related to what the teachers want to provide during the teaching period. In this experimental study, the participants were from a high school and, the accomplishment of the specific curriculum was taken into account. The difference between the control and experimental group was statistically significant as the achievement was apparently different between the two groups. The lean-centered proposed model increased the achievement of the learners of English language. The program finished on time as it had been planned and resulted a better achievement, developing and increasing the end-result were the goals the lean-centered model was designed for. It completes the whole program in line with finishing every step before starting the next. The application of the model was successful and effective to prepare the learners to meet their achievements, and to comprehend the materials and the course. The students were able to get high scores and develop their reading and writing skills. The culture of lean was managed to let and allow students to be an effective participant of the whole process and the result was better achievement of the learners. All the steps were eliminated which existed in the program and added no value to the result. The findings will encourage teachers to use different methods of teaching to meet learners' needs, be flexible in applying different methodologies and techniques in their classrooms, and apply the lean-centered application in their teaching processes. It is suggested that the model will be used in different areas of studying to find out the effects of it and use this model for different levels of learners in terms of their ages and abilities in relation with the different skills.

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