

The Implementation of Scenographic Elements and their Connotations on the Stagecraft of Educational Curricula: Using Mathematical material as a Model

Sami Ali Hussein¹

Israa Hussein²

College of Art, University of Wasit, Iraq^{1,2}

Abstract

The research discusses the connotations of scenographic elements in incarnating and converting the educational curriculum of intermediate school students. These elements can be explained in the educational elements via enhancing the theatrical dialogue visually as product of investing the enormous capabilities of scenographic elements aesthetically and functionally. These elements bear aesthetic and functional connotations which can be employed in specialized theatrical show using educational materials, that is what is called (the stage craft of curriculum). The concept of scenography and the mechanism of its active elements within the structure of integrated stage is the most important instruments that the producer of the theatrical show utilizes to achieve the objectives of the theatrical work in manufacturing the pedagogical theater for the sake of the benefit of students. On light of what is mentioned, the research consists of four sections. The first section gives an insight about the methodological part of the study. It elaborates the problem of research which states that what the scenographic elements can achieve in converting educational curriculum and explain that on stage. The paper discusses the significance, limitation and objectives of the study. It also gives definitions to the important terms relating to the concept of scenography. The second section is a theoretical part of the study which explicates the meaning of scenography and its historical and contemporary importance for the theatrical show and link it with the composed elements and the mechanism of its functionality. The third section is the discussion and the findings of the study in which the research uses a play called (The Family of engineering) as sample. The play is analyzed due to analytical and descriptive system to show the functionality of scenographic elements and their connotations in converting and explicating the educational curriculum via the mechanism of curriculum stagecraft. The fourth section is the conclusion which encapsulates group of results. One of the is that the educational theater has the capability to fulfill pedagogical function aesthetically in the stagecraft of educational curriculum.

Keywords: Educational Curricula, Scenographic, Mathematical material, Stagecraft , art

1. Introduction

Theater is considered as one of the important and oldest art ever known by human being. It plays an effective role in enrooting educational, moral and artistic values. Furthermore, it is significant in directing and give guidance to people. Specifically, the theatrical act serve as an instrument to enhance man's personality on knowledgeable, skillful and emotional scales. Such role cannot be achieved without integrating the elements of theatrical work. On this basis, the scenographic elements have the prime importance to transcribe these values on stage. The function of scenography in the theatrical show is essential due to its participation in creating system of combining relationship among its elements, consisting of (Décor, lighting, accessories, and music). These elements play a vital role in supporting the intellectual and the artistic prospects for theatrical director who employs mode of close and systematic relationships. Moreover, the scenography is not restricted on materialistic elements only; however, the space and the actor are important factors which participate simultaneously to build the theatrical system on which the director depends on the rhythm of stagecraft apparently and implicitly. It is noticed that the concept of scenography has accompanied the stagecraft since its emergence. However, in spite of discrepancy in the interpretation of the scenography, till now its function serves as an crucial factor within the context of theatrical show. So scenography is considered as a concept including everything within the context of theatrical show, such as pieces of motionless décor, spoons, planes flying in the theatrical atmosphere, even the movements of the actor/ actress, costume, the fallen light on the actor/ actress and décor (Allam, 2006). It is observed that, the scenography has developed due to enormous advance in technology. It has become as a renewed art in its all composed aspects. In other words, it has become renewable due to the variety of technical factors, accompanied by the development in the intellectual and aesthetic philosophy. Methodologically, the scenography is a set of technical elements used in the structure of theatrical scene and its components. However, the relationship between designing and the formulating components is essential criterion to build the form of scenographic show. Using such design is important to work on the connotations of the formulating components within the system of integrated show. Nonetheless, the research sheds light on a set of theatrical shows prepared for a specific group of students as a raw material to find the relationship between designing and knowing the features of elemental components. The material used to formulate this designing is essential criterion to build

the scenographic show. The most important objectives and connotations of scenographic show might help to answer the question of the research. According to what has mentioned, the problem of the research is an attempt to answer the following questions which is 'Do those who work in the educational theater benefit from knowing the concept of scenography and its elements? and can they convert the educational curriculum for some school classes into under the title of stagecraft curriculum?

1.1 The Importance of the study

The study is very significant. It sheds light on how to employ the elements of scenography by interpreting and explicating the educational curriculum via theatrical shows. Such work provides advantages for those who work at educational sector, especially, those who are specialized in theater.

1.2 The objectives of the study

The current study aims at identifying the mechanism of scenography and involve its elements in stagecraft of curriculum, that is achieved by converting the scientific material into theatrical show.

1.3 The Limitation of the study

The limitation of the study as follows:

- The limitation of time: the study depends on the theatrical shows conducted by College of Art/ Baghdad for the period 2010- 2019.
- The limitation of the place: the study occurs at the Institute of Art Baghdad/ Al- Mansoor.
- The Limitation of the topic: it is restricted on the effect of scenographic elements and its mechanism in stagecraft of curriculum.

1.4 The concept of scenography

For Rome and Greece people, the term scenography is called *Laskemographia* which means decoration of the stage and epigraphs on the wall and the premises of the theater (Ali, 2001). In French language, it means the art of landscape photography (Abd al-Nour, etl, 1983). In English language, it means the art of photography of three dimension (Wagnaliz, 1965). Idiomatically, the term scenography is defined by Pamela Haward as a space which is created on the stage and described as a complete and integrated tendency used to manufacture theater from visual

perspective (Pamela, 2004). It is defined as formulation, performance and designing for the place of the show by which the location of artistic show is shown clearly during the performance on the stage, that depends on investing photograph, shapes, volume, materials, colors, lighting and sound (Marcel Fried, 1993). The scenography is viewed as a process of audio and visual formation for the space of performance where actor and actress participate in its formulation by their existence and imagination. The term scenography has emerged from Greece which means whatever concerns with the painting which exists on the stage; however, for the contemporary artists , it means whatever concerns with the apparent framework for the theatrical and cinematic works including artistic shows, décor, costume, pieces of accessories in the theater and cinema. These elements are designed by visual arts (Zinopeirce, 1980). Furthermore, scenography is described by the theatrical director Sivan Morris as an art of landscape photography (Breatrice, 2005). On light of what has mentioned above, the researcher defines scenography as an art of systematizing and organizing the theatrical space in which all the elements of theatrical show participate in its artistic combination such as lighting costume, décor, color and sonic effects. These elements add breath to the theatrical events of the educational shows, providing artistic, aesthetic and functional dimensions to fulfill the required result.

1.5 The Curriculum

Linguistically, curriculum is defined as a clear path (Marcel, etl, 1993) Idiomatically, it is a set of educational experiences presented by school to students, using them inside and outside the school to fulfill a compete and integrated growth for mankind. This is achieved due to planning and educational objectives projected mentally, socially, physically and religiously (Fatihi,etl, 2018). The researchers define curriculum as a scientific material mandated by a qualified committee which has already designed studies and procedure to cope with mental capability of every age-group.

1.6 Stagecraft of curriculum

The stagecraft of curriculum is very significant by which the theatrical work can depend on educational curriculum, for instance, in primary school to formulate from it an improvised theatrical shows or other kinds of shows, could be shot or silent to reinforce the process of teaching. This is achieved by adapting the improvised shows or other dialogical shows to the mental capability of pupils and due to their academic stages (Ali, 2011). Moreover, The stagecraft

of curriculum is also achieved when the educational curriculum is incorporated with theatrical mould by embodying the stands and events and representing them in specified place (Aida, 2006). It can be defined as a processing certain parts from curriculum in dramatic style within specific steps, making students/ pupils to embody the roles of the theatrical content within the specific academic year under the supervision of teacher (Ameen, 2009). However, the researcher defines it as an extracted text from educational curriculum whereas teacher adopts the theatrical preparations and direction of the stage at school. This is done when every students/ pupils embodies a role from the syllabus of teaching material.

2. The Concept of Scenography

The concept of scenography has come into being when the theater of ancient Greece flourished in the fifth century B.C. However, artists give the concept different names due to its function and its relationship to the space of the theater which can be prepared to be part of theatrical show or participate in creating the environment of theater. So, the meaning of scenography is named differently due to different periods of time to cope with the development occurred in theatrical show. In ancient Greece, the use the word *decoration* for scenography which is developed as time progresses to fulfill the requirement of theatrical show. Ever since, the simplicity of elements used to create varieties in setting. In broader sense, the discovery of theatrical elements is not an easy task as we see them nowadays; however, in that time, they create a significant effect on the theatrical production; for instance, the invention of lifting machine, used by Euripides to descend gods and other important characters is an evidence of advance in dramatic show. Regardless, what Euripides wants to achieve, however, using such tool help him to fulfill the objectives of his intellectual work. Moreover, the invention of the three-fold prism is very significant to identify the kind of show by the audience. The painted landscape on one of the three folds of the prism tells whether the theatrical show is tragic, comic, or pastoral. It is observed that, the scenography of landscape has been developed as new technological discoveries emerge in order to cope with the development of dramatic thoughts on the levels of dialogue and show. In other words, the advance in technology has established many solutions to the manufacturing of theatrical shows, coping with the requirement of social and cultural development over periods of time. Furthermore, Greece utilized many physical and mathematical tricks on stage, for instance, which was used to make gods flying, they also used *briacota* device which its function relies on mathematical equations to divide the aspects or facets and moving them around one axil which can be changed

or replaced in the theatrical landscape due to type of dramatic work whether, tragic, comedy or pastoral. Also, actors/ actresses used to wear high heels with an atmosphere accompanied with technological interference, manipulating physical and optical characteristics of the show to enchant the audience (Salah, 2012). On light of what has mentioned, scenography has become very important in the structure of dramatic show and the cornerstone of constructing its optical elements. Pamela (2004) describes scenography as a process of manufacturing the environment of stage. The historical development of scenography is associated with the advance in theatrical potentials; that is linked the development of history in social and technical levels. It is observed that scenography is one of the elements concerning with the construction of visual system for theatrical space due to its role in enhancing the visual image. This refers to the notion that the theatrical space must be treated aesthetically and artistically by using scenographic elements such as lighting, décor, accessories, and he bodies of actors/ actresses. Peter Cork states that scenography is the visual resource of theater manufacturing (Aida, etl, 2020). The concept combines many arts such as visual and acoustic. These arts work simultaneously to form a show, design and perform the setting of that show by capitalizing of figures, volumes, lighting, sound and color (Fried, 2001). So, the term scenography means the components on stage that are observed by audience whether moving or standstill. These components serve as instruments to trick and enchant the audience by creating an aesthetic environment on stage, such as projecting forest, desert, cave or landscape to shift the scene to the north pole of earth. The other elements which take part in the creating of such environment are décor, makeup, costume, lighting and sound as well as actors/ actresses who represent very important part of theatrical image (Alexader, 1972). Many opinions and views have emerged about the concept of scenography. For some artists, it can be a technique combining between art and science. It is a philosophy of scenic spot concerning with whatever occurs on stage and what accompanies the art of theatrical acting to produce a complete and integrated show on stage (Fried, 2001). In addition, the theatrical show is a product of what is designed by director and what is prepared visually. In other words, scenography is a crucial step after the vision of the director. However, décor is an important theatrical element, décor designer should not be scenographic but the scenographic must know about décor and other optical arts to elevate the production process (Beatrice, 2005). In broader sense, the scenographic must be acquainted with other theatrical techniques and arts due to his role in theater manufacturing. The technological revolution has made a qualitative leap in all aspects

of life generally in the field of art and specifically in the field of scenography due to its contribution to develop décor, lighting, accessories, colors and costume. This has an positive effect on the production of theatrical show. It is stated that one of the causes of using the modern techniques have become indispensable part of theatrical expression due to their contribution in the process of organizing the theater. Such contribution is significant because it help the theatrical expression to be more scientific, leading to more innovation and beauty to theatrical show (Causey). It is noticed that everyone uses scenography in his/ her daily life; and the use of scenography differ from one person to another according to their culture and the way they use décor lighting in their houses. Moreover, scenography can be in the fashion and the use of the clothes due to place, time and culture which is same as what happen in historical, tragic and comic plays. The way that we distribute furniture in room by taking into consideration the space and the surrounding environment have scenographic dimensions. So, Scenography is a term by which cultural, artistic and technological concepts merged. This is achieved by projecting the function of space that corresponds with the corporal needs of man where human is an aesthetic being, having changeable mood (Ammar, 2016). Putting it differently, scenography is the art which draws the imagination. It is observed that the embodiment of cinematic picture in the art of scenography found in optical image, visual image, auditory and verbal description and the physical image. The theatrical communication has unique property that differs from other communicative activities in which we cannot isolate a sign or symbol from the other because every sign is considered as a network of symbolic elements, having various communicative channels (optical or auditory) whatever its size. These elements are linked with the system of symbolic show, consisting of lighting, formulating space, actor/ actress movements, landscape and extension (Riad, 2009). Marcel (2001) states that the concept of scenography is developing as time progresses; it has a vital role in the construction of theatrical show; and it has become the basis to build the art of space structure and control its shape to fulfill the objectives of theatrical show. Due to the advancement of technology, the existing of scenography has added breath, charm and beauty to theatrical production. We notice in recent years, the theater has produced an enormous shows with great themes and dialogues which are described as more effective than Shakespearian plays by virtue of development in imagination and technology (Jawad, 2015). It turns out that the concept of scenography is the spirit of theatrical show. It has unique effect to formulate the unity of work due to the integration of its elements like décor, accessories, costume, makeup, lighting and actors/ actresses. It observed that

the term scenography has acquired different meaning in the mid of twentieth century, specifying new methods to organize the theatrical space. The contemporary pioneers have added breath to it like Adolf Ibia (1862- 1928); Edward Gorden Greek (1872- 1966); who have great interest to rehabilitate the theatrical space by giving it visual note (Abdel-Rahman, 2005). The visual note refers to the way of selecting décor and lighting because the theatrical show includes several arts within the structure of theatrical space. Pamela theorizes that the restriction of the theatrical space is significant challenge for the designer of stage, the space of the theater is an indispensable part of scenographic elements which must be linked with dramatic time. The right space should simulate man and text simultaneously since. Nonetheless, scenography is pictorial figure, having multi-layered expression which differs due to the structure and the components of the theatrical work. Furthermore, the stage is the space which consists of many arts such as fashion, music, makeup, accessories and landscape. All these elements combine to represent an organic whole of the work. Then, the director has a control over the scenographic elements, releasing them whenever required to fulfill the idea of the show to the audience, that is achieved when the visual manifestation formulate to be the theatrical image. The theatrical image explain itself by the help of scenographic elements (Jawad, 2015). It is clear to dramatists and directors that scenography has utmost importance in enhancing theatrical and artistic works due to its aesthetic effect in order to present a patent idea about the theme of show. This makes the dramatic work absorbable to spectators. So, the elements of scenography help to improve the theatrical works and to draw the attention of audience to a higher degree. It is observed that the theatrical image cannot reach transcendence unless being supported by scenographic elements by which artists acquire optical, visual and scientific experience. Such experiences might sever as instruments to deal with the space of stage in effective way. For instance, the director develop the theatrical show by working on the process of creativity from one hand, and representing the scenographic elements through actors/ actress to another hand. It is noticed that scenographic elements and the movements of actor/ actress create an organic whole of the theatrical image. It is viewed that the elements of scenography are the creators of space show (et al. 2015). Pamela (2005) states that the work of scenography is not restricted on the designer of lighting and décor which are part of the whole in stage structure. Also. We cannot merely link the concept of scenography with designer of décor because it is not art of décor; however, the décor designer must utilize all elements on stage to fulfill unified and successful shows. In educational theater, scenography plays a vital role due to

its potential to activate or motivate students' thinking; besides, it helps to create the spirit of competition inside them.

2.1 The Elements of Scenography

There are certain components along with scenographic elements which are considered as basic pillars for theatrical show. These elements are important factors of creativity due to their contribution in constructing the dramatic show. Putting it differently, they are responsible for making the artistic work successful or not. When these elements unite, their aim would focus on the production of dramatic image. In other words, the formulation of dynamic scene leads to understand the visual image of show. On this basis, the work of scenography, serves as a link between imagination and reality which is very significant to strengthen the attention of audience. Jawad (2015) theorizes that elements of scenography aims at crystalizing the dramatic image at which all elements participate in balance to formulate it. If there is more than one aim, the meaning would be scattered, consequently, the words of language become aimless in theatrical show. The unity among scenographic elements results an artistic image, making the theme of dramatic show clear to audience, that is supported by body movements of actors/ actresses. Such mechanism leads to create an effective image, taking part in motivating audience imagination. It is observed that the theatrical image is more effective than dramatic text. According to modern artists, in theater, the weight of image is more important than the weight of words. Inacio (2009), who is one of the communicative experts, stats that the image in theatrical show conveys much about the theme rather than words because image expresses the inner side of man and activates his/ her imagination. In addition, the body movement of actor/ actress is very crucial to support the visual structure on stage, associating with the work of scenographic elements. Actors serve as instrument to communicate between the dramatic text, their opinions and the vision of the producer of the dramatic work. As we know the theatrical show cannot be performed without actor/ actress who have potential match to the potentiality of stenographic elements to fulfill the structure of the show (Jawad, 2015). Thus, the advance in technology along with the development in all aspects of life leads to development in scenographic elements, sounds effect, space, décor, costume and lighting. That has an crucial role in developing theatrical shows.

3. Findings and discussion

3.1 The Sample of the study

The research uses purposefully a play, entitled "The Family of Engineering" because it fulfills the objectives of the study due to the existence of the required components. Moreover, the study uses the analytic and the descriptive approach to analyze the sample.

The title of the play: the family of engineering

Written by: Umer Muslih

Directed by: Asaad Iskender

Acting by the following students: Sajad Abid Al Hussein, Muhamad Heitham, Karar Heitham, Haidar Mujamad, Duaa Ali. Ali Jamaa, Jameel Salim, Mustafa Nasir, Sara Kereem Zahraa Saleem, Ali Towash, Abbas Muhamad, etc.

- The performance of scenography

Ahmed Jalal, Ali Bian, Ibraheem Rahma, Saif Al Ameri, Waad Amamuri.

- Setting

Rotating theater in the institute of arts- Bagdad

- The date of the show: (2016).

- The summary of the play

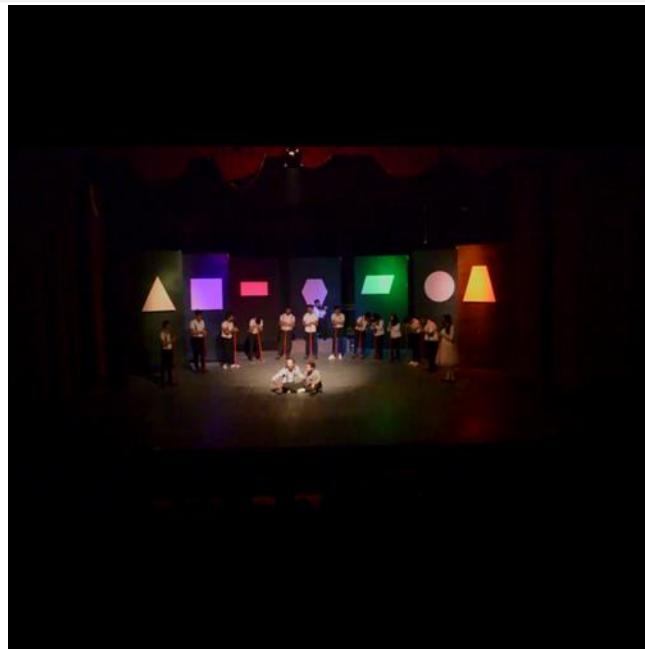
It is an educational play, explicating the features of engineering figures within educational curriculum, for particular group of students. The directors utilizes deliberately a text from a syllable in order to convert it into dramatic action. It aims to simplify and explain a lesson from a syllable to students/ pupils on stage as an educational means. This is called the stagecraft of curriculum; specifically, it concerns with the topic of engineering and mathematics in which students/ pupils face obstacles to understand. So using theater is an important instrument to simplify them. The events of the play cycling among characters embodying engineering figures on stage, such as triangle, rectangle, rhombus, parallelogram, etc. The story begins when the figure triangle declares rebellion by refusing its shape; then the sequences of events start. So, the show deals with explaining the syllabus containing the figures in dramatic way to make it understandable to learners, helping them to decode the puzzles of the topic and simplifying the complexity of scientific materials. This is achieved by using simple dialogues among these characters (figures) whereas each of which shows its functions easily. Furthermore, the director capitalizes on the announcer whose job is to ask question to different figures, clarified as follows:

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- Can you introduce yourself?

The parallelogram initiates to answer: I'm the parallelogram, the son of square, from polygonal tribe, all the engineering neighborhood know me, my shape is each opposite two sides are equal; the measurement of each opposite corners are also equal; and each of two diameters divides each other. I swear in God that I say the truth. The objectives of educational theme at the end of the play is also to teach the students about as mention in the saying (we are one family, everyone knows us, and we are the basis of engineering with the characteristics which distinguish us from others, we promise to stay united.

3.2 The elements of constructing scenography

The play uses audible and visual sides by capitalizing on music and lighting. The play starts with music to draw the attention of audience; then the director uses colorful lighting to reflect the positive quality of the show. Also, he uses décor aesthetically and in simplified educational way in manifesting the figures triangle, rectangle, square and rhombus which are formulated as characters in three- dimension. They have bright colors, to draw the attention of the learners. This helps learners memorizing the figures and their characteristics easily. We notice that each figure exists everywhere on stage as shown in the figure no. (10). The show starts with colorful harmony among elements of scenography with spotlight on engineering figures which are drawn with bright colors fixed on the shadow surrounding the stage. Here the designer of the show summarizes the main theme clearly. As, the director wants to convey, the family of engineering becomes understandable to learners without verbal explaining or any kind of sound support; that matches with the indicator no. (4). It is observed that the décor is merely black shadows, drawn on them brightly the figures with spotlight on them. The director uses since the beginning raw scenographic elements (pieces of wood and different colors) which harmonize with the main theme.



The dialogue starts with a question cast by an actor concerning the problem of rectangle rebellion. In this aspect, the raw material of scenographic elements play very significant role in manifesting the functions of rectangle to learners. So, the prime goal of the work is to clarify the scientific meaning of engineering figures. To support of such idea, the designer has chosen scenographic items with features, expressing the required meaning due to what the director wants to convey to make the idea clear. One of these items is the wooden stick which is characterized as light in weight by which a character can make it move easily formulating the figure of rectangle. The use of stich is important to draw the attention of learner about the figure. The following dialogue starts with the rectangle which express its features to audience as follows:

- Rectangle: I'm the rectangle, the son of parallelogram, people know me from my right angles.
- Announcer: what are your features?
- Rectangle: All my angles are right, each two opposite sides of my shape are equal; look sir, I have few features in comparison with my brother the square which is spoiled child of engineering family, not because of his positive features but all his demands and requirements are requested. Oh people, is that accepted? Therefore, I would like to leave my position for good.



The structure of the play is clarified through the sequences of dialogue during which different engineering shapes are formulated by the director who uses scenographic elements as basis to build the structure of the play. When the role goes to a figure with distinct color, the director sheds a spotlight on it. The signification of each figure is formulated scenographically by color and spotlight to make learners focusing on its features. Furthermore, the stick is significant when a character leans on it, indicating the fact that learner must lean on scientific meaning of engineering figures before he/ she moves to their features. Such act leads the learner to prosper scientific future. Then, characters resume to embody engineering figures such as square and parallelogram by using raw materials which help to develop figures in a way to simplify them visually to learners. Moreover, the director moves toward another significant meaning 'the stick' which is considered as a scenographic item used by characters for pointing on engineering figures, fixed on the shadow. Here, the scenario of using the sticks is similar to the traditional class when a teacher uses a stick to point on written items on white board. Moreover, the designer and the director draw the figure of circle. A spotlight is used to fall on the circular shape as a next engineering figure. We notice that there is harmony between the thrown spotlight, the shape of circle and the movement of characters in circular way to ensure its shape. Besides, the director suggests the following dialogue to reinforce its appearance on stage:

How can we divide $22/7$?

In this question, the director could have invested all scenographic elements, including the characters. Furthermore, the use of raw materials is harmonized with the required work; for instance, the use of wooden stick is the main raw material which enhance the show due to its mobility and flexibility in movement. The stick has a great significant by which many connotations generate. We notice many images embodies the topic are formulated by the aid of stick. The researcher observes that the images are integrated to be part of the show and dialogue by the use of scenographic elements accurately. For instance, when the character says "I'm the square" the movement of the characters contribute to formulate its shape. In other words, the square is formulated when the sticks, curried by characters, meet to make its shape simply. As clarified in the following dialogue:

- Announcer (addressing square): Can you introduce yourself?
- Square: I'm the son of parallelogram, the son of squared shape.
- Announcer: what are your features?
- Square: All my sides are equal, I have only right angles, and this my brother rectangle which rebels against us, desiring to change its features, because of the fact that my all sides are equal and my diameters are perpendicular; it cursed my yesterday. We have worked hard to persuade it with its feature because all people know it as its but it refuses.

Thus, the answer of any figure is achieved through an image and a dialogue. Also, the director

has



succeeded to clarify the theme of the scientific material to the learners by employing images and sound effects simultaneously. We notice that the task of the director/ designer is to choose the required scientific items to enhance the educational show. The selection of these items must not contradict with the movements and the action of the actors/ actresses.

4. Conclusions

- The scenographic elements are employed and invested clearly to construct the image of theatrical show by converting the educational syllabus into educational show.
- The interest in educational goals (stagecraft of curriculum) is clear in the sample (Family of engineering). The show focuses with all its elements including the concept of scenography on educational side, by investing stage to explain scientific materials to learner inn easy matter. This is achieved by th aid of scenographic elements such as colorful lighting which reflects aesthetic and artistic vision of the producer. One of the accessories is the stick which plays a vital role to clarify the idea of engineering shape.
- Educational theater can fulfill the educational function by using scenographic elements in stagecraft of curriculum.
- The concept of scenography, due to the features of its elements, can elevate the aesthetic and functional tasks simultaneously.

References:

- Abdel-Rahman, El-Desouky. "Modern Media in Scenography of Theater". Cairo (Academy of Fine Arts - Theater Department) 2005.
- Abd al-Nour, Jabbour and Suhail Idris. *Al-Manhal*. (Arabic-French Dictionary) Beirut: (Dar Al-Alam Al-Malayn) 1985.
- Aida, Allam, etl. "Directing and Scenography in Contemporary Theater, Publications of the Department of Culture, Sharjah, 2020, p. 37.
- Aida Allam. "Scenography in Theater within Stability, Arts Newspaper". Issue 65 (Kuwait: The National for Culture, Arts and Literature), 2006.

- Alexander, Dean. *The Basic Elements of Theatrical Directing*. Trans. Sami Abdul Hamid, Freedom House for Printing, 1972.
- Amer Musa al-Rubaie, "Scenography of the Formation of the Theatrical Image", Al-Mada Newspaper, Issue (1150), Sunday, 10/2/2005.
- Amin, Shehata Abdullah Ahmad, The Effectiveness of Using the Approach of Drama in the Development of Some Mathematical Concepts and the Capability of Creative Thinking". Education Journal in Mathematics, Volume 4, 2009, p.13.
- Ammar Taha Al-Azzawi. Scenography Discourse in Interior Design. Baghdad, Al-Fateh Library, 2016.
- Ali Abbas Jaafar, "Scenography and Other Spaces". Al-Akademi Magazine, Baghdad: College of Fine Arts, 2001, Issue (32), Volume 9, Year 9.
- Beatrice Valana Bacon. "Theater and Visual Image". (Trans.) Suheir El-Gamal, Cairo (Ministry of Culture - Cairo International Experimental Theater Festival) 2005.
- Fathi, etl. *Curricula: The Foundations, Components, Systems and Development*. Daar Al- Fikir. Aman. 2018.
- Fethek, Wagnaliz. *The Standard Dictionary*. New York: (FDWC Wagons) 1965.
- Hussein, Ali, Harf. "Towards My Class Theater: A Study in the Mechanisms of Creative Drama". 1st Edition, The Yanabeeh Publishing and Printing House, Damascus - Syria, 2011.
- Ibrahim and others, Cairo, (Ministry of Culture - Cairo International Festival of Experimental Theater) 1993.
- Inacio, Ramoneh. "Image and the Prevelence of communication". (Trans). Nabil Al-Debs, Ministry of Culture, Syrian General Book Organization, Damascus, 2009.
- Jawad Al-Hasib. "Actor and Scenography in the Theatrical Show". 1st Edition, Baghdad, Al-Mutanabi Street, 2015.
- Marcel von Fried, The Art of Scenography, in: Scenography Today. Trans. Mahmoud Kamel, (Cairo: Ministry of Culture - Cairo Experimental Theater Festival), 2001.
- Marcel Farid, etl. *The Art of scenography in Scenography Today*. Trans. Hamada Matthew, causey. Theatre and Performance in Digitai culture from simulation to embeddedness *previous source* p150-153.
- Pamela, Howard. "What is Scenography". (Tran.) Mahmoud Kamel, Cairo, (Ministry of Culture - Cairo International Experimental Theater Festival), 2004.

Riad, Shahid. "The Symmetry of Light in Theater". House of General Cultural Affairs, Baghdad, 2009.

Salah Al-Qasab. "Quantum Theory and Its Practices in the Artistic Field". 1st Edition, Baghdad, Al-Fath Office, 2012.

Zinopeirce, Xenopairs. "Scenography" Appendix of the Journal of Foreign Culture (Baghdad,: Cultural Affairs House, 1980).