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Proposed training program within Bayer's strategy for participants in the ceramic art learning course for the Student Activities Department at the University of Baghdad

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Research Summary

Our current research is a proposed training program in light of the Bayer strategy for participants in the ceramic art learning course of the Student Activities Department at the University of Baghdad, covering three semesters. Due to the importance of the topic, the problem was formulated with the following question: (Does the proposed training program in light of the Bayer strategy enhance and develop the skills of trainees in ceramic education courses in the Student Activities Department at the University of Baghdad?

Importance: This research is considered beneficial for both trainers and trainees in the following way: designing such training programs can help trainees develop their skill sets and reduce the time and effort needed to eliminate random performance. Additionally, applying the program in light of the Bayer educational strategy provides trainers with a stable and consistent system to overcome the issue of skill performance. These training programs also benefit training centers by teaching trainers how to create a well-thought-out plan for educating trainees.

Objectives: The current study aims to reveal a program based on the Bayer strategy to develop the skills of ceramic course trainees. It also addresses a second objective,

which is to design an educational program based on the Bayer strategy and its applicability to participants in the ceramic training course within the temporal and spatial limits of the research. The spatial limit is the pottery hall at the University of Baghdad (Student Activities Department), and the temporal limit is the time of the courses held to teach ceramic shaping skills during the academic year according to the university schedule.

Methodology: This research addresses the first chapter and its main titles, defining useful terms for the study, which are the training program and the Bayer strategy, as well as defining ceramics. The second chapter is the core of the current research, which is divided into main titles: training programs and their importance for learners, the concept of strategy and its types in education. The researcher presented the Bayer strategy and its significance in training programs, and the last topic discussed in the second chapter is the art of ceramics and types of shaping methods. In the third chapter, the researcher relied on the case study method when addressing the short time allowed for conducting the training course.

Results: The researcher reached a set of results, indicating that it is possible to implement a proposed training program to teach the skill of ceramics art for trainees (affiliated with the University of Baghdad). The program can enhance the efficiency of course trainers and can also develop the artistic ability of trainees in ceramic shaping. The proposed program, based on the Bayer strategy, can mitigate the challenges of the short duration of the course by eliminating randomness in performance

Keywords: Strategy, Bayer Strategy, Training Program, Course, Ceramic Learning.

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Chapter One

Research Problem:

Educational strategies are considered one of the most important foundations relied upon by modern teaching methods, through which the skills acquired by learners can be developed. Through attending and participating in ceramic skill training courses, the researcher noticed that trainees do not acquire the required skill during the course duration. This is attributed to several reasons, the most important being the limited time of the course and the absence of a systematic training program that helps trainers effectively convey the skill to the trainees. Designing a program based on the use of the Bayer strategy assists in saving time, delivering information, and enabling learners to master the skill of shaping clay to the greatest extent possible within a short period during the courses held in the Activities Department at the University of Baghdad. The duration of the course, which spans several days, reflects on the weak skill performance of learners, the low quality of production suitable for display, and the difficulty in performing all the information and techniques provided by the trainer. From here, the following question arises: Does the proposed training program based on the Bayer strategy enhance and develop the skills of trainees in ceramic education courses in **the Student Activities Department at the University of Baghdad?**

Research Objectives:

1. To reveal a program in light of Bayer's strategy for developing the skills of ceramic course trainees .
2. To design an educational program based on Bayer's strategy and the possibility of applying it to participants in the pottery training course .

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Research Hypotheses:

- The proposed program will contribute to the skill development of trainees in shaping clay for the ceramic course.

Research Importance:

1. Designing such training programs can help trainees develop their skill sets and reduce the time and effort required to eliminate random performance.
2. Implementing the program in light of Bayer's educational strategy provides trainers with a stable and consistent system to overcome the issue of skill performance.
3. Training programs benefit training centers by allowing them to educate trainers to develop a well-thought-out plan for teaching trainees.

Research Boundaries:

- Spatial Boundaries: The ceramics hall at the University of Baghdad (Student Activities Department).
- Temporal Boundaries: The time of the courses held to teach ceramic skills during the academic year according to the university schedule.

Research Sample:

A group of staff and students from the University of Baghdad.

Research Tools:

1. Program form (the four lectures) proposed within the Bayer strategy
2. Validity and reliability form units by the judges to achieve the research goals

Research Methodology:

The researcher follows the (case study method) when addressing the limited time allowed for conducting the training course.

Research Steps:

Theoretical Framework, including:

1. Training program.
2. Strategy.
3. Bayer strategy.
4. Art of ceramic.

Research Terminology:

Training Program: It is an organized plan that consists of the educational topic, educational activities, and the means accompanying the topic, as well as the teaching and evaluation methods that collectively lead to achieving the desired goals (Ghada. Rafat, 2004, p. 8).

- **Operational Definition:** The researcher defines it as the educational content that the researcher designs and programs in an organized manner within an educational framework, including all the elements that the trainer wishes to clarify and teach using modern methods and techniques, whether they are written texts, explanatory videos, or informative images that allow for positive and intellectual interaction between the trainer and the trainee.
- **Strategy:** "The art of using means and selecting methods to achieve and define goals, which can only be accomplished through planning important work programs to achieve those goals and selecting means to implement the plan" (Al-Mudarris, 2007, p. 10).
- **Operational Definition of Strategy:** It is a set of activities, educational means, and movements that the trainer engages in when presenting and teaching their subject according to plans and steps determined through modern educational strategies to achieve their educational objectives.

- **Bayer's Strategy:** It is an educational strategy for teaching critical thinking, which begins with the teacher presenting the skill to the learners through demonstration so that the learning process takes place, after which they employ it in various life situations (transfer of learning effect). "It includes: presenting the skill, explaining the skill theoretically, demonstrating the skill, discussing the demonstration, and reflective thinking on what the learners have done" (Abu Jado and Nofal, 2010, p. 262).
  Procedural Definition of the Bayer Strategy: It is an educational strategy used by the researcher for a group of trainees in ceramic skills by presenting a set of activities that included the presentation of the skill (the skill of shaping clay), a demonstration of the skill, and discussion to achieve the planned goals.
- **Procedural Definition of Ceramic:** Everything that is executed and shaped from prepared and pure earthen clays using various artistic methods through shaping with ropes or clay strips or an electric wheel to create diverse artistic works in different shapes and sizes, which are then dried, fired in special kilns, colored with glazes, and then fired again to become ceramic bodies.

Chapter Two - Theoretical Framework

1. Training Programs and Their Importance for Learners:

The term training is one that has received significant attention at both the level of cognitive sciences and particularly educational sciences. Given the importance of training in developing the skills of trainees, it is a process that relies on providing the art of experience, skill, and knowledge, with the aim of delivering training services to individuals and groups within educational institutions, in order to achieve the highest level of performance in facing the obstacles and challenges that trainees encounter. Al-Shami defined it as "a planned activity aimed at bringing about changes in trainees regarding their information, knowledge, and skills" (Al-Shami, 2008, p. 21). Al-Jawarneh defined it as "a process that relies on providing

the art of skill and science with the aim of delivering training experience to individuals and groups" (Al-Jawarneh, 2016, p. 411). Based on the previous definitions of training, training programs can be defined as "a set of planned and organized programs that assist the participating trainee in the courses to develop their performance within training workshops and acquire experiences with the aim of improving aspects of their performance, in order to reach the highest levels." Based on these values, a set of principles and characteristics that underpin training programs have been identified, the most important of which are:

- Planning: Programs and annual plans should be established according to a clear scientific methodology.
- Full Commitment: The trainee should be fully dedicated during the course period.
- Practical Aspect: The course should contain sufficient time for the practical aspect and not be limited to the theoretical aspect, allowing the trainee to engage in a set of skills and activities that help in skill acquisition.
- Progression: The training program should be sequential and progressive, moving from the simplest to the more complex.

Establishing training programs based on a set of principles and foundations aims to achieve a range of training objectives.

2. Stages of Training Program Preparation:

The design of the training program goes through a set of main stages during its preparation, starting from the needs assessment stage, then the program design stage, followed by the program implementation stage, and finally reaching the program evaluation stage.

2-1 Needs Assessment Stage:

This stage represents the fundamental pillar upon which the organization's strategy for training its human resources is based. Training needs are considered to be dynamic and ongoing, both current and future.

2-2 Stages of Designing the Training Program:

Training needs serve as the foundation for the training program design process, which aims to bring about the changes expressed by these training needs. After identifying these needs, the training planner begins to design training programs in a way that achieves the desired objectives. The process of designing training programs includes several procedures. The design or planning stage of the training program involves three procedures: first, identifying training topics (establishing the content of the training plan); second, monitoring the training program topics; and finally, determining training methods .

2-3 Training Program Implementation Stage:

At this stage, the training manager must supervise the implementation and ensure that the design they created can be executed. The implementation of the training program includes important activities such as: setting the schedule for program execution, arranging the training venue and rooms, and daily monitoring of the program's progress. Additionally, the implementation of the training program requires effective communication between the trainer and the trainees, not just communication directed towards the trainees. At the same time, several factors must be considered to ensure that the training materials align with the trainees' training needs, including the trainer's awareness of the trainees' training needs, the use of descriptions and explanatory methods familiar to the trainees, and the trainer's understanding of the subject to the extent expected by the trainees in the training program". (Al-Saadoun, 2013, p. 3-30).

3. Concept of Strategy:

The word "strategy" is derived from the Greek word "strategos," which means "the art of leadership." Therefore, strategy, for a long time, has been closely related to skill. In this regard, it is essential to emphasize the dynamics of strategy, as it cannot be confined to a single comprehensive definition. Strategy is the art of using available means to achieve goals or to serve as a system of scientific information. There is a consensus on:

1. Choosing and defining objectives.
2. Selecting scientific methods to achieve and define those objectives.
3. Developing implementation plans.
4. Coordinating the related aspects of all of this.

Strategy is not limited to a specific field but extends to be a common denominator among all activities in various scientific fields". (Zaitoun, 200, pp. 292-293). It is the art of utilizing available capabilities and resources in an optimal way to achieve the desired objectives in the best possible manner, meaning that it involves specific methods to address a problem or directly important issues or practical methods to achieve a specific goal "(Mohamed El-Sayed Ali, 2000, p. 279). Strategy is a well-structured plan for construction, and its flexible application is achieved through the use of all available capabilities and resources in an optimal way to achieve the desired objectives.

3-1 Training Strategy:

The phrase refers to the training procedures planned by the trainer in advance, so that he can implement the training in light of the available capabilities to achieve the planned training objectives for the training program he builds, with the utmost possible effectiveness" (Zaytoun, 2000, p. 293).

The strategy is the approach or plan, procedures, maneuvers (tactics), methods, and techniques that the teacher follows to achieve specific learning outcomes, whether cognitive, knowledge-based, self, psychological, social, or psychomotor. The teaching strategy is, in general, a set of selected teaching procedures previously chosen by the trainer or instructional designer, which he plans to use during the implementation of the instruction, achieving the desired educational objectives with the utmost possible effectiveness, and in light of the available capabilities" (Zaytoun Hassan, 2001, p. 281). A set of general rules that concern the means of achieving the desired objectives includes the following elements:

1. Training objectives.
2. The movements were carried out by the trainer and organized to facilitate his teaching.
3. Management of the training program and organizing an appropriate environment for receiving information and ideas.
4. Responses of the trainees resulting from the stimuli organized by the trainer (Mohamed El-Sayed, 2000, p. 133).

It is possible to determine the difference between strategy, method, and style in that the training strategy is broader than the method. The strategy is what chooses the appropriate method in line with the various changing circumstances in the training situation, while the method is, on the other hand, broader than the style. Thus, the training method is the communication tool used by the organizer of the course to convey its training objectives to the participants, while the teaching style is the way in which the teacher addresses the method (the teaching method). The strategy is a wide and comprehensive plan for teaching and training, so the method is broader than the style and has different characteristics. The strategy is a more comprehensive concept than the two, as the strategy is selected according to specific variables, which in turn directs the choice of the appropriate method that

subsequently determines the optimal teaching style, which is selected based on certain factors." (Al-Sharbini, 2001, p. 18), **There are several types of training strategies, including:**

3-1-1 Lecture Strategy:

This strategy relies on the teacher delivering information to students while occasionally using the board to organize and simplify some ideas. The student assumes the role of a listener, who expects to be asked at any moment to repeat or recite any part of the material. Therefore, the teacher is considered the focal point of the educational process in this method. Many educators believe that the teacher can make this a good approach by following a set of points, including:

- Preparing the lesson thoroughly.
- Focusing on clarifying the scientific content rather than merely conveying it.
- Dividing the lesson into parts and sections.
- Using various educational tools and learning resources.
- Utilizing necessary means." (Abdul Qawi, 2008, p. 97-93).

3-1-2 Discussion and Dialogue Strategy:

The teacher should manage an oral dialogue through the teaching situation, aiming to reach new data or information. The teacher must consider a set of points to make this method effective when used in teaching certain topics that require debate and expressing opinions on them. Among these points and considerations are the following:

- Questions should be appropriate to the objectives and the level of the students.
- Questions should stimulate students' thinking.
- The ease and difficulty of the questions should be determined.

- Care should be taken to ensure that the questions are free of linguistic and scientific errors.
- It is essential to focus on providing wait time, allowing students to think and engage in dialogue and discussion.
- Consideration should be given to involving all students in the discussion, and they should be given the opportunity to discuss with each other.

3-1-3 Practical Demonstration Strategy:

It relies on the teacher performing the skills or movements subject to learning in front of the learners' eyes, with repetition of this performance if the educational situation requires it, then giving the learners the opportunity to carry out these performances to implement the skill subject to learning. To ensure the success of practical demonstrations in achieving the skill objectives, the teacher should consider a set of considerations, including the following:

- Engaging presentation of skills to ensure students' attention.
- Regularly involving students in everything contained in the presentation or some of it.
- Organizing the learning environment in a way that allows students to see the teacher when presenting practical demonstrations, considering that practical demonstrations rely on the sense of sight.
- Giving learners the opportunity to perform and execute the demonstration while observing and evaluating them" (Jamal, 1998, pp. 43-46).

From the above, the researcher concluded that the teaching strategy is a set of procedures and means used by the teacher, and their use enables learners to benefit from planned educational experiences and achieve the desired educational goals.

1. The teaching strategy is broader than the teaching method, as from the strategy we choose the appropriate method for teaching; the method is a means of communication with learners.
2. The strategy consists of a set of movements performed by the teacher (presentation, coordination, training, discussion).

3-2 Bayer Strategy:

It is one of the strategies for higher-order thinking skills. It was defined by (Iman Darwish, 2016, p 7) as steps that involve giving trainees multiple opportunities to understand examples from the lesson topic, presenting the components of the skill, training them on these components, critically reviewing these components, and providing additional opportunities for implementation. It was defined by (Obaid, 2004, p 25) as a set of educational and learning procedures and activities used by the trainer in an educational situation to present a specific thinking skill, which includes introducing the skill, executing the skill, reflecting on it, applying the skill, and reviewing it. In each step, thinking operations are practiced, which the trainer plans to implement .

3-2-1 Nature of Bayer Strategy:

The Bayer strategy is based on teaching thinking skills within the context of the subjects taught, as Bayer believes that training in teaching thinking skills and processes can be integrated into the content of educational materials and as part of training course plans, leading to the development of thinking and a deep and conscious understanding of the material presented (Ahmed Ala, 2016, p48). Bayer emphasized the necessity of teaching learners how to think and working to elevate the level of those who possess thinking skills. There is the potential to influence the thinking process at various levels, as trainers innovate new

situations daily by posing questions, evaluating tasks, and conducting tests for learners (Raad Rzouqi and Istabraq Lateef, 2018, p130).

3-2-2 Advantages of the Bayer Strategy:

The Bayer strategy is considered one of the effective strategies in teaching and learning for trainees and developing their skills and cognitive abilities to achieve effective learning. Some of the advantages of this strategy can be summarized as follows:

A. It places trainees at the center of the educational process, transforming them from passive recipients to active recipients in the educational environment.
B. It trains learners on how to think, as it develops their intellectual, cognitive, and skill-based abilities.
C. It develops self-concept by building self-confidence in learners, relying on it, raising their level, and nurturing their talents to become better learners, while improving their cognitive motivations and educational abilities based on their efforts.
D. It enhances the cognitive motivation for the learning process of learners so that they can apply it in various life matters (Abdul Aziz, 2009, p. 12).

3-2-3 Steps of Teaching with the Bayer Strategy:

When applying the Bayer strategy, both trainees and trainers go through the following stages:

1. The teacher presents the skill to the trainees.
2. The students apply the skill.
3. Reflecting on what is going through the students' minds as they apply the skill.
4. Activating the trainees' new knowledge of the skill.

5. The trainer discusses what is on the trainees' minds as they apply the skill" (Mohammad Al-Khawaldeh, 2017, p. 37). "Bayer assumed that each stage or step in teaching any of the skills is fundamental and effective in achieving positive learning for the trainees" (Saada, 2006, p. 201). This emphasizes the role of both the trainer and the trainee together, where the trainer is the effective guide in the educational process, "encouraging the trainee to engage in discussion, and the trainee acquires knowledge by answering posed questions and discussing among themselves to determine the correct answer to each question" (Zaytoon, 2003, p277). From here, we find that Bayer's strategy is based on activating cognitive processes through the steps of its implementation, "as each learner must have a unique way of processing information that they comprehend and execute through various methods, leading to an increase in their skill and knowledge acquisition" (Ghanem, 2009, p 201). **The researcher** believes that the process of teaching the skill is one of the responsibilities placed on a successful trainer by providing an appropriate environment for the learning process and encouraging trainees to ask questions about the skill topic, forming personal opinions for each learner, and motivating them to defend these opinions positively and scientifically. Accordingly, Bayer's strategy integrates thinking skills with the subject matter, serving as a collaborative strategy between the trainee and the learner, following principles and steps in which the trainer presents the skill and its components and provides examples, while the learner practices and applies that skill.

3-2-4 The Trainer's Roles in the Bayer Strategy:

The roles and tasks performed by the trainer in the "Bayer Strategy" are:

1. Acting as a planner, organizer, guide, and mentor within the training workshop.

2. Asking questions that require skills in thinking, analysis, interpretation, and criticism.
3. Providing guidance and direction on the skill topic until logical solutions are reached (Samah Obeid, 2017, p. 453).

Thus, the trainer becomes one of the essential foundations upon which the success of the Bayer Strategy relies, as the trainer presents the skill to the trainees and explains the main steps to be followed in applying that skill, conducts discussions with the trainees during the application of the skill throughout the training course, provides feedback, reviews the implementation steps, and evaluates the trainees on the skill with a final review to ensure the correctness of the application steps from the trainees' side, all within an interactive learning environment that allows trainees to express their ideas in discussions within the hall .

3-2-5 The Role of the Trainee in the Bayer Strategy:

The Bayer Strategy focused on activating the role of the trainee through:

1. Enhancing self-confidence and reliance on it.
2. Participation and encouraging the spirit of interaction through discussing the solution and expressing opinions.
3. Repeating the skill until reaching the level of mastery" (Iman Robshed, 2016, p. 16).

Thus, the role of the trainee in the Bayer Strategy is represented in adhering to and committing to the trainer's guidance, having a good understanding of the skill presented, reviewing the steps for its application, practicing the acquired skill, applying it through the proposed topics, executing the tasks assigned to them, as

well as participating effectively and respecting the opinions and proposals of others.

4. The Art of Ceramic:

The art of ceramic is considered one of the most important achievements that have been passed down through history, as it represents the true identity that carries within it clear messages about the events, beliefs, and traditions of peoples, characterized by the diversity and variety of their arts, ideas, and styles. "In terms of its characteristics and qualities that correspond to the environment throughout the ages, it has conveyed ideas from distant times, and the art of ceramic is distinguished by its cultural diversity through the different geological nature of the raw materials, which in turn highlighted its uniqueness over long historical periods" (Atiya, 1997, p. 30). It began with the ancient human's knowledge of making pottery from both fired and unfired clay to meet the requirements of daily life, allowing them to use pottery to create ceramic vessels for storing food and drink. The pottery industry evolved and progressed over historical periods, as ancient humans resorted to using the best types of clay available in nature to obtain a specific type of good ceramic resistant to environmental factors and changes, in addition to achieving functional and aesthetic value for the ceramic shape and utilizing it in daily life. "Thus, there are historical developments in the art of ceramic that it has undergone, and artisans were able to carry a unified character from different eras and times across various scientific, technical, and artistic fields, despite the differences in the types of raw materials and the formal compositions of the ages; they were able to express the deep essence while transcending the limits of superficial reality" (Al-Shal, 2000, p. 128). Despite the multiplicity of subjects, it carries within it the craft of abstract art that is based on specific laws expressing identity and clarity of the fixed personal image, as well as a unified artistic, design, and formative language.

There are several methods that have been used both in ancient and modern times to shape the ceramic body, which are divided into several types:

4-1 Method of Forming by Pressure in the Mold:

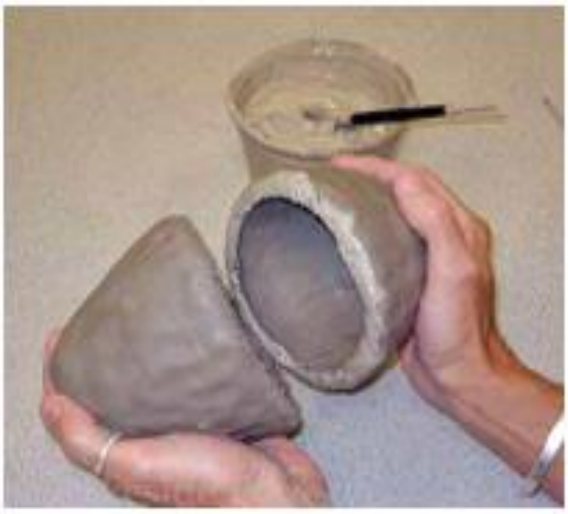
This method relies on pressure in the process of producing shapes. Force is applied in one axial direction. Equal pressure is used. The goal is to produce a more compact product where the shrinkage resulting from firing is easier to control. Among the advantages of this method are the economical use of materials, industrial processes, medium and large production processes, and the quick and low-cost operation. However, the disadvantages of this method include that shrinkage inside the mold occurs rapidly, and this method is considered unsuitable for large ceramic shapes.

Molding method with mold, Figure No. (1)

4-2 Hand Building Method:

The hand building method for shaping ceramic bodies is considered one of the most primitive and specialized techniques in the art of pottery. The pieces are created from clay that is manually rolled and often combined with a liquid binder. The use of this technique has the advantage of uniqueness in production, as it is impossible to produce two identical pieces, making it unsuitable for creating

precisely matching sets of items like tableware. This method allows potters to use their imagination to create unique works of art. This technique is also referred to as hand construction.



Manual shaping method Figure No. (2)

4-3 The Rope Formation Method:

It is the simplified method for building a ceramic body. It consists of ropes made of clay with a uniform thickness, which are pliable and are placed in a sequential manner (one rope on top of another), ensuring that the ropes extend slightly outward from the rope on which the other rope rests if a circular bulge is desired, and vice versa if a narrowing of the circle is intended. To ensure that the ropes adhere to each other, the upper rope can be pressed toward the lower rope, and the lower rope can be pressed toward the upper rope until the ropes bond well. A clay adhesive can be made to complete the bonding process.

Rope shaping method Figure No. (3)

4-4 The Slab Building Method:

It is a quick method where the ceramic shape is constructed by laying clay slabs and sticking the slabs one on top of the other according to the desired shape to be built.

Shaping method with slices Figure No. (4)

3-5 The Pottery Wheel Technique:

This technique was used in ancient times and was operated by hands and feet. Now, the potter's wheel (electric wheel) is considered one of the important methods for the rapid production of vases, flower pots, and ceramic plates.

Pottery shaping method Figure No. (5)

Indicators of the Theoretical Framework

1. Training programs are important in improving the performance of trainers (teachers) by developing their skills and attitudes towards educational work.
2. Training programs contribute to the development of trainers, facilitating the achievement of educational process goals and qualifying them in the teaching and training profession.
3. Providing trainees with information and skills in a modern way according to studied principles.
4. The necessity of using modern strategies in training due to their importance in acquiring concepts and developing skills for trainees.
5. The Bayer strategy is one of the important strategies in the educational process in terms of benefiting from sufficient time to absorb examples through the repetition of skills.
6. The cognitive and intellectual closeness between the teacher and the learner by allowing the teacher to let learners ask questions and discuss them during the lecture.
7. Reducing wasted effort and time and random performance due to the established steps and goals based on the Bayer strategy.

8. Ceramics is considered one of the important skills and arts in the artistic and industrial aspect, as it is relied upon in the production of pottery and contributes to supplying the labor market.

Chapter Three – Research Methodology and Procedures

Research Methodology:

The researcher follows the (case study method) when addressing the simple time allowed for conducting the training course aimed at enhancing the competencies of trainers and developing their skills in dealing with trainees and improving pottery formation skills.

Research Community and Sample:

The overall group on which the researcher intends to generalize the results related to the research problem consists of the members of the University of Baghdad (employees and students), linked to the spatial limit, which is the Student Activities Department at the University of Baghdad, and the temporal limit is the specified duration of the course, which is four days.

Research Procedures:

Within the literature of the theoretical framework and the procedures that the researcher will adopt to achieve the objectives of this research to design the program, and before delving into the practical procedures, the researcher relied on the Bayer method in designing the program and its philosophy, which can be summarized as follows:

The "Bayer" method for teaching thinking relies on the integration and combination of skills and the content of the materials presented to the trainee, as follows:

A. The trainer presents the skill within the course curriculum:
   - The skill and its name are mentioned.

- The trainer presents the skill as a goal of the lecture.
- The areas where the skill can be applied and the importance of learning it are mentioned.

B. The trainer presents in some detail the main steps followed in applying the skill and the rules or useful information for the trainee when using it.
C. The trainer assists the trainees in applying the skill step by step.
D. The trainer conducts a discussion with the trainees after completing the application to review the steps and rules followed in the skill.
E. The trainees apply the skill with the help and supervision of the trainer to ensure their mastery of the skill.
F. Trainees can work individually or in small groups.
G. The trainer conducts a general discussion aimed at uncovering personal experiences.

The trainer conducts a general discussion aimed at uncovering the personal experiences of the trainees regarding how they implement the skill and attempt to use it both within and outside the course. In this way, the proposed training program, according to Bayer's strategy for teaching the skill of pottery, was designed by the researcher and presented to a group of experts to achieve the validity of the tool used, represented in the forms for achieving the objectives of the proposed program within a set of questionnaire questions based on indicators of the theoretical framework (Appendix 1). The program included four lectures, with each lecture structured according to the following steps:

1. Defining the lecture title.
2. Defining the time duration.
3. Defining the general objectives of the skill.
4. Defining the cognitive objectives.
5. Defining the activities and educational resources.

6. Defining the method of conducting the lecture.
7. Evaluation and assessment.

The lecture plan was implemented according to Bayer's strategy as follows:

1. Research boundaries.
2. Preparing the appropriate environment.
3. Introducing the lecture.
4. Reading the general and cognitive objectives of the lecture.
5. Presenting the skill by the trainer during the lecture, mentioning its name and defining it simply.
6. The trainer assists the trainees in applying the skill.
7. Paying attention to what is on the trainees' minds, discussing with them, and answering their questions.
8. Applying the skill by the trainees under the trainer's supervision.
9. Monitoring the implementation of the skill, where the trainer conducts a discussion with the trainees aimed at revealing how the skill is executed.
10. Using educational resources, including illustrative images and videos via electronic sites.
11. Evaluating and assessing the work and performance of the trainees according to a performance evaluation form presented to experts in the ceramics field to ensure validity and reliability (Appendix 2).

The Researcher Sees it as essential to clarify the difference between evaluation and assessment, as some educators believe that evaluation and assessment are synonymous concepts or that they lead to the same meaning. However, the correct view is that there are clear distinctions between them. Evaluation is the judgment of the value of things, ideas, or responses to assess the adequacy, accuracy, and effectiveness of things, while assessment is broader and more comprehensive; it is a

process of modification and improvement through which weaknesses are identified and addressed, and strengths are recognized and reinforced. The researcher concluded that assessment is a therapeutic, diagnostic, and preventive process, and it is considered one of the most important educational processes. It helps to determine the level of learners and to evaluate the extent to which objectives are achieved. It serves as an indicator of the appropriateness of the educational unit to the objectives, as well as indicating the suitability of the level and the accompanying educational activities for the skills and goals, and for the time constraints defined in the research methodology, where the course lasted for four days. The researcher relied on both evaluation and assessment simultaneously to achieve the maximum benefit from the course and to acquire the intended skill, as previously defined for the objectives of this research. Below is the proposed program in light of the Bayer strategy.

The First Lecture:

Lecture Title	Time	General Skill Objective	Cognitive Objectives	Educational Tools Used	Lecture Flow	Evaluation and Assessment
The difference between ceramic shape and pottery shape The first hour	Two hours	The trainee learns about the difference between the two techniques (ceramics and pottery).	The trainee is skilled at distinguishing between the pottery shape and the ceramic shape and differentiates between them	Exhibition of images, video films, and artistic pottery and ceramics	Explanation and clarification of the meaning of the two techniques and the application of the Bayer strategy through asking questions and discussion with the trainees.	The test involves asking questions and showing images to the trainees to differentiate between pottery and ceramics.
Types of clays and their characteristics The second hour		The trainee learns about the types of clay used, their classifications, and their properties.	The trainee describes the clay used in the ceramic shape.	Presentation of a diagram illustrating clay divisions	Explanation and clarification of the types of clays and asking questions and discussion with the trainees.	Asking the trainees about the types of clays and the extent of their responses

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The Second Lecture:

Lecture Title	Time	General Skill Objective	Cognitive Objectives	Educational Tools Used	Lecture Flow	Evaluation and Assessment
Kneading Clay Hour One	Two hours	The trainee knows how to knead and prepare the clay.	The trainee learns the method of kneading clay, how to keep it from drying out, and when its consistency is suitable for shaping pottery.	Presentation of the skill through a demonstration video for clay kneading by the course instructor.	The trainer presents the skill and introduces the trainees to the kneading method, how to eliminate bubbles, answers their questions, and discusses what is on their minds according to the Bayer strategy.	Observation and monitoring of the practical performance of the trainees
Methods of Shaping with Clay Hour Two		Recognizing the formation of ceramic work	The trainee masters the techniques of shaping ceramic work and how to apply them.	Displaying images and videos from specialized websites.	An explanation by the trainee on how to use the appropriate method for shaping ceramic work and answering the trainees' questions and discussing with them.	Directing questions about the topic of the second hour to assess the trainees' understanding.

The Third Lecture:

Lecture Title	Time	General Skill Objective	Cognitive Objectives	Educational Tools Used	Lecture Flow	Evaluation and Assessment
The tools used for processing clay surfaces First hour	Two hours	The trainee can list the tools used in shaping.	The appropriate tools are determined when completing and shaping ceramic work.	Tools Used 1- Various shaped surface scraper 2- Metal wires used for cutting excess in shapes 3- Metal, plastic, or wooden plate used for smoothing shapes 4- Wooden clay knife 5- Knives and forks of various sizes 6 Sponge pads used for moistening surfaces and polishing work.	Explanation of each tool and its uses by the trainer and answering the questions raised by the trainers.	Response of the trainees to the questions regarding the tools used
Shaping with ropes Second hour		The trainee knows the method of shaping with ropes.	The trainee learns how to shape with ropes suitable for the shape of the work.	Providing images and explanatory videos through specialized websites.	The coach demonstrates the skill manually by shaping with equally thick ropes.	Practical performance and skill application

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Lecture Four:

Lecture Title	Time	General Skill Objective	Cognitive Objectives	Educational Tools Used	Lecture Flow	Evaluation and Assessment
Layered formation First hour	Two hours	The trainee knows the method of shaping with slices.	The trainee learns how to shape the slices and fit them to the shape of the work	Providing images and explanatory videos through specialized websites.	The trainer demonstrates the skill manually by shaping the slices and spreading the clay evenly, then cutting it according to the desired shape box)	Practical performance and skill application
Mural formation The second hour		The trainee knows how to create murals.	The trainee learns how to create a mural using relief and sunken sculpture.	Providing images and explanatory videos through specialized websites.	The trainer demonstrates the skill manually by creating a mural, spreading the clay evenly, and sketching a chosen theme. Then he adds or removes clay from the shape until it's complete.	**Practical performance and skill application**

Validity of the Instrument:

To ensure that the program evaluation form has been validated, these procedures were presented to a group of experts in the field of ceramics to get their feedback. The questions directed to the experts were formulated based on the indicators from the theoretical framework (Appendix 1).

Reliability of the Instrument:

Objectivity is an important criterion for judging the content because reliability is part of building trust in the research topic. After analyzing the judges' responses individually, it was found that their opinions were closely aligned regarding their agreement on the items in the questionnaire after minor changes made by them. This alignment supports the achievement of its objectives. Therefore, the Kuder-Richardson formula was used to determine the percentage of agreement among them

by calculating the reliability coefficient between the researcher and the judges, which was found to be as follows:

Table No. (1) The percentages of agreement between the researcher and the evaluators

The stability ratio between the first arbitrator and the researcher.	The stability ratio between the second arbitrator and the researcher.	The stability ratio between the first and second arbitrators.	Stability Rate Ratio
89%	78%	89%	85%

Statistical Methods:

$$\text{Reliability Coefficient} = \frac{\text{Number of Agreements}}{\text{Number of Agreements} + \text{Number of Disagreements}} \times 100$$

Results

The results showed after the statistical analysis that the judges agreed to conduct the program because it can achieve the research objectives through:

1. The current research concluded that it is possible to implement a proposed training program to teach the skill of pottery to trainees (affiliated with the University of Baghdad).
2. The program can enhance the efficiency of the course instructors.
3. The program can develop the artistic ability of trainees in pottery forming.
4. The proposed program, based on the Bayer strategy, can overcome the short duration of the course by eliminating randomness in performance.

Recommendations

1. The researcher recommends conducting other training programs based on modern educational strategies.

2. The researcher suggests designing a proposed program to evaluate the outcomes of the trainees.

Reference List and Sources

Books:

1. Abu Jadoo, Saleh Mohammed and Nofal, Mohammed Bakr. (2010). Teaching Thinking: Theory and Application, 3rd Edition, Amman: Dar Al-Maysarah.
2. Ahmed Omar Ela. (2016). The Educational Advocate and Learning Difficulties. Amman: Dar Amjad for Publishing and Distribution, 1st Edition.
3. Hassan Zaytoon. (2001). Designing Teaching: A Systematic Vision. Cairo: Alam Al-Kutub, 2nd Edition.
4. Al-Khawalda, Mohammed Abdullah. (2017). Historical Imagination and Critical Thinking. Hashemite Kingdom of Jordan: Dar Al-Khalij, 2nd Edition.
5. Raad Mahdi Rizqi, and Istbarq Majid Latif. (2018). Series on Thinking and Its Patterns, Volume 1, Lebanon: Dar Al-Kutub Al-Ilmiyah.
6. Saada, Joudah Ahmed. (2006). Teaching Thinking Skills - With Hundreds of Practical Examples, Amman: Al-Shorouk.
7. Al-Sakarneh, Bilal. (2011). Modern Trends in Training. Amman: Dar Al-Maseerah for Publishing, Distribution, and Printing.
8. Al-Shal, Mahmoud Nabawi. (2000). The Visual Arts from Ancient Islamic Civilization, Cairo: Egyptian Book Authority.
9. Al-Shami, Rifaat. (2008). A Journey with the Distinguished Trainer: His Methods and Arts. Riyadh: Human Abilities Center.
10. Abdul Rahman Jamal. (1998). General Teaching Methods and Skills for Implementing and Planning the Teaching Process, Amman: Dar Al-Manahij.
11. Abdul Aziz, Saeed. (2009). Teaching Thinking and Its Skills: Practical Exercises and Applications, 1st Edition, 2nd Issue, Amman: Dar Al-Thaqafa for Publishing and Distribution.

12. Ghanem, Mahmoud Mohammed. (2009). Introduction to Teaching Thinking, Amman: Dar Al-Thaqafa for Publishing and Distribution.
13. Ghanem, Mahmoud Mohammed. (2004). Thinking in Children, Amman: Dar Al-Thaqafa Library for Publishing and Distribution.
14. Kamal, Abdul Hamid Zaytoon. (2000). Teaching: Its Models and Skills, Alexandria: Scientific Office for Publishing and Distribution.
15. Mohsen, Mohammed Atiyah. (1997). Roots of Art, Cairo: Distribution of Dar Al-Ma'arif Al-Masriyah.
16. Mohammed El-Sayed, Ali. (2000). Terms in Curricula and Teaching Methods, Faculty of Education, Mansoura University, 2nd Edition.
17. Woswos, Dima; and Al-Jawarna, Mu'tasim Billah. (206). Educational Supervision: Its Essence – Development – Types – Methods. Amman: Dar Al-Khalij for Publishing and Printing.

Magazines:

18. Ahlam Al-Baz Hassan Al-Sharbin. (2010). Planning for Teaching and its Components, Egyptian National Center for Exams and Educational Assessment.
19. Al-Tamimi, Muhammad Tahir Naser. (2016). The Effectiveness of the Bayer Strategy in Achievement and Critical Thinking among Students of the Fifth Literary Grade in History, Journal of the College of Education for Girls in Humanities.
20. Al-Fatlawi, Fatima Al-Ameer, Mucles, Abdul Jabbar, and Faraj Allah, Hassan. (2013). The Effectiveness of the Bayer Strategy in Achievement in Chemistry among Second Grade Intermediate Students, Al-Qadisiyah Journal of Arts and Sciences.
21. Saada, Joudat Ahmad, and Naseem Muhammad Mansour. (2013). Using the Smith Strategy and its Effect on Developing Critical Thinking and Seventh Grade Students' Attitudes toward History, Beyer. 221 -214- 109 Educational Journal, Kuwait University, Scientific Publishing Council.

22. Obaid, Samah Muhammad. (2017). The Effectiveness of the Bayer Strategy in Developing Inferential Thinking among Fifth Grade Literary Students in History. Journal of Educational and Psychological Research.

Theses and Dissertations:

23. Iman Mahmoud Rwaished. (2016). The Impact of Using the Bayer Strategy on Developing Problem-Solving Skills and Life Skills in Science among Ninth Grade Students in Gaza, Master's Thesis, College of Education, Palestine.
24. Al-Juhari, Khaled Muhammad. (2010). The Effectiveness of an Engineering Program Based on the Bayer and De Bono Strategy for Developing Information Collection and Organization Skills among First Intermediate Grade Students, Master's Thesis, College of Education, Al-Azhar University, Egypt.
25. Rifaat, Ghada Hussein. (2004). The Effectiveness of a Teaching Unit in Domestic Clothing for Developing Some Knowledge and Skills in Light of Modern Trends, Unpublished Master's Thesis, College of Specific Education, Ain Shams University, Egypt.
26. Al-Saadoun, Fahd. (2013). The Role of Specialized Training Programs in Improving the Performance of Employees in the Public Prosecution and Investigation Authority in Riyadh Region. (Unpublished Master's Research). Graduate Studies College, Naif Arab University for Security Sciences, Riyadh.
27. Ta'man, Shuja Muhammad. (2014). The Impact of the Bayer Strategy on Achievement in Geography and Reflective Thinking among Intermediate Grade Students, Master's Thesis, College of Education, University of Baghdad, Iraq.
28. Obaid, Edward Shihada Youssef. (2004). The Impact of Strategic Thinking Strategy and Reflection.

INT:

29. Sarah Al-Muwail (1/13/2016). https://thepotteratelier.blogspot.com/2016/01/pinching.html

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Appendix No. (1) Arbitration Form

Mr./Mrs./Professor/Assistant Professor /Dr. ..... Dear Sir/Madam,

Please kindly provide your valuable comments regarding the validity of the sections of the attached form to achieve the objectives of the program for the research titled (Proposed Training Program in Light of Bayer's Strategy for Participants in the Pottery Art Course of the Student Activities Department at the University of Baghdad).

With appreciation

Signature / .....

Academic Title /.....

Specialization / .....

Place of Work /.....

Achieving the goal	Sections	Achieved	Partially achieved	Not achieved
Achieving Program Goals (for Trainers)	Providing trainers with self-development in dealing with trainees who have different academic backgrounds.			
	Empowering trainees to solve problems and deal with the challenges they face with trainees.			
	Increases the efficiency of trainees in less time and helps eliminate randomness during the training period.			
Program Objectives Calendar (for Trainees)	Empowering trainees to acquire the appropriate knowledge of pottery art skills.			
	Empowering trainees to acquire knowledge to apply the skill			
	Empowering trainees to obtain the appropriate knowledge for shaping methods			
	Improving trainees' skills by enhancing their abilities to visit websites for additional knowledge			
	Benefiting from the program to develop the artistic taste of trainees			
	Benefiting from the program to develop the trainee's personality aspects and teach them patience			

Experts:

1. Prof. Dr. Sabreen Abdul Wahid, Egypt, Ain Shams University, Faculty of Specific Education, Curricula and Methods of Teaching Art Education.
2. Prof. Dr. Ali Jard Al-Humairi, Iraq, Al-Qadisiyah University, College of Fine Arts, Department of Visual Arts, Ceramics.
3. Prof. Dr. Rana Dahi Abdul Karim, Iraq, University of Basra, College of Fine Arts, Department of Visual Arts, Ceramics.