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RESEARCH ARTICLE

Teaching Practices of Arabic Language Teachers in the Primary Stage In Light of Professional and Life Skills

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ARTICLE INFO	ABSTRACT
Received: Dec 23, 2024	The current research aimed to identify the level of teaching practices of Arabic language teachers in the primary stage in light of professional and
Accepted: Feb 11, 2025	life skills; To achieve this goal, study materials and tools were prepared,
Keywords	which were: A list of teaching practices necessary for Arabic language teachers in the primary stage in light of professional and life skills, and a questionnaire to measure those practices, then verify the validity and
Practices	reliability of the questionnaire, then select the study sample from Arabic language teachers in the primary stage in the city of Abha, then apply the
Teachers	study tool, then statistical analysis and interpretation of the results and
Skills	provide recommendations and suggestions. The results showed: A low level of teaching practices among Arabic language teachers in the primary
Profession	stage in light of professional and life skills; The general average of teaching
Life	practices was (52.63) at a rate of (21.05), and the research presented some recommendations, including: Holding training courses for Arabic language
Arabic Language	teachers focusing on developing teaching practices.
Primary Stage	
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INTRODUCTION

Teaching the language and developing its various skills requires the teacher to be able to use teaching practices that are appropriate to the objectives of the subject, the nature of the topics (content), and the learner, as well as to the requirements of the era; as it is of utmost importance that the educational process and curricula keep pace with the era in which we live and its requirements and demands; and that the educational objectives of the subject seek to achieve these requirements and link them to the specialization, and attempt to acquire these objectives among learners at various educational stages and in various specializations.

21st century skills are an important and necessary requirement in curricula at various educational levels, as they include diverse, comprehensive and useful skills for the learner, as they are related to the era in which we live; therefore, people need them in their lives and interactions with each other. Those who do not possess these skills may not be able to adapt to society, or achieve success in many areas.

The call for these skills was initiated by the Partnership for 21st Century Skills (P21), which was established by the US Department of Education and a group of educational institutions such as Microsoft and the National Education Association. This partnership has become one of the most important leaders in developing and teaching 21st century skills (Al-Baz, 2013, 196).

Teaching skills are essential skills for teachers, which requires the importance of evaluating and developing their teaching practices in a way that contributes to achieving educational goals that prepare the learner for life. The 21st century has witnessed a huge boom in scientific and technical developments related to the field of education, which has directly affected the elements of the education system at all levels, and this has been linked to the necessity of developing teaching practices in a way that is consistent with 21st century skills (Al-Ruwais, 2020).

One of the important things in the teaching process is linking the teaching practices that teachers perform in their teaching with the skills required by the era in which students live, including 21st century skills. So that this contributes to developing them in their students, and so that their teaching keeps pace with the requirements of the era, and meets the needs of society, and the students are able to achieve the desired goals, and are able to adapt, communicate, interact and achieve.

The Arabic language curriculum, like other curricula, must include 21st century skills in all their elements: starting with the objectives, content, activities, teaching methods, educational tools, and assessment methods, and that they be developed among students at all educational levels; due to their great benefits for the learner and society.

The teacher in general and the Arabic language teacher in particular play an important and pivotal role in developing the abilities and skills of his students, and moving them from stagnation and inactivity to interaction and activity, by placing them in educational and intellectual situations; This increases the ability to imagine, create, interpret, and evaluate (Mahmoud, 2012. 528).

The teacher is one of the important elements of the curriculum that greatly affects the development of the various skills of learners; The focus is not only on the content or educational activities or evaluation methods to develop language skills in learners, but the teacher must be prepared to qualify him to develop these skills, and he must use methods and strategies that work to develop them in his students; thus, the curriculum system is completed, as the role of the teacher in developing the various language skills is an essential and pivotal role; He is responsible and entrusted with teaching the language and acquiring its skills in students (Abdul Qader, 2020).

The educational process in the twenty-first century faces many challenges that require a review of teacher preparation programs: academically, professionally, and culturally; In order to help them perform efficiently; this also requires the development of 21st century skills among learners; which requires that teachers' teaching practices include 21st century skills; so that this is reflected in their students (Hindawi, 2020).

The current era is characterized by a knowledge explosion, growing information, rapid developments in knowledge and information, and increasing development in teaching and learning methods and communication technology; This development has been reflected in the educational process, as knowledge is no longer fixed, but rather developing and renewable; Therefore, it has become necessary to develop the educational system with all its elements; As a result of the developments and changes witnessed by the twenty-first century in all fields; It has become necessary for the learner living in this century to have a creative mind and critical thinking; which requires the teacher to have a high degree of awareness and professional competence; so that he develops his knowledge and teaching skills (Al-Sulaiti, 2015).

Shalabi (2014) mentioned that the twenty-first century brought changes that carry new challenges and horizons; Which requires preparing a generation capable of confronting them, and dealing with them as active and productive individuals, and even creative ones within a cooperative framework based on effective communication in a world led by technological development, and this will only come about by providing individuals with skills that enable them to do this; therefore, it has become necessary for countries to develop national education projects; with the aim of reconsidering the future skills that individuals need, to prepare them for life and work in the twenty-first century; as twenty-first century skills are necessary; to ensure students' readiness to learn and innovate, and the optimal use of information and technical media.

The teacher is the main pillar in the educational process, which seeks to reach distinguished levels of quality, and this will only be achieved by developing the teacher's skills and teaching practices to the highest level that enables him to deal with the challenges and variables of the era, including the requirements of the twenty-first century (Wahdan, 2021).

The role of the teacher has changed in the twenty-first century; his role is no longer just a transmitter of knowledge and information to students, but his roles have diversified; to include innovation and renewal; which requires him to possess twenty-first century skills; to carry out his new role in the field; To ensure the quality of outputs that are affected by his teaching practices in the educational process (Alimat, 2013).

The most important development topics on which the progress of societies and their ability to face the many and accelerating challenges are based is the topic of preparing teachers in the twenty-first century; as specialists believe that the intentional and systematic integration of these skills in educational curricula will enable educators to achieve many goals that they have not been able to achieve for many years past, and they justify this by saying that these skills enable the student to learn and achieve in the pivotal subjects of study at higher levels, and also provide an organized framework that ensures the engagement of learners in the learning process, helps them build confidence, and prepares them for innovation and leadership in the twenty-first century, and to participate effectively in life, and this is not limited to learners only, but teachers as well, and it also represents a framework for the professional development of teachers (Hafni, 2015; Al-Balawi and Al-Balawi, 2019; Al-Otaibi, 2020).

It can be said that there is a deep gap between the skills that students learn in school and those they need in life and work in the knowledge-age society, and that current curricula are no longer sufficient to prepare students for life and work in today's changing world, driven by technological development (Bybee, 2010).

Many conferences have recommended the necessity of teachers possessing 21st century skills, and employing these skills in teaching practices that work to acquire and develop these skills for students, including: the Fifth Conference on Teacher Preparation "Teacher Preparation and Training in Light of Development Demands and Modern Developments" held at Umm Al-Qura University during the period 23-25 Rabi' Al-Thani 1437 AH, the International Conference "The Teacher and the Age of Knowledge: Opportunities and Challenges A Renewed Teacher for a Changing World" held at King Khalid University during the period 29/2-1/3/1438 AH, and the International Conference on Evaluation of Education and Training organized by the Education Evaluation Commission in Riyadh during the period 26-28 Rabi' Al-Awwal 1440 AH.

Opinions have also called for education to provide learners with the skills necessary to succeed in their societies and work in the 21st century, and therefore many institutions concerned with education have sought to formulate frameworks to identify and define 21st century skills, and propose how to integrate them within the educational system in general, and the basic fields of study in particular (Shalaby, 2014. 2).

Focusing in the educational process on the functions of one side of the brain (the left side) alone is not enough. Rather, skills and abilities that were not taken into account should be employed: as basic skills in qualifying for work, such as: creativity, innovation, and the ability to link elements and events to form something new. These are skills specific to the right side of the brain (Pink, 2005).

Twenty-first century skills are a necessity to prepare the individual for life and work in the jobs of the present and future era, in a manner consistent with the requirements of modern life, which is no longer compatible with traditional teaching practices that rely on indoctrination and memorization. Rather, they require new practices that require the teacher to play multiple roles to develop basic skills: such as critical thinking and problem solving, communication and teamwork skills, creativity and innovation skills, and media and digital literacy skills; This is done by teaching curricula,

practicing classroom and extracurricular activities, and employing blended learning to ensure the quality of educational outcomes (Al-Ruwais, 2020).

Study Problem:

Given the importance of twenty-first century skills, the importance of including these skills in the teacher's teaching practices, and the studies' confirmation of this, including the study of each of: (Al-Yami, 2022; Al-Ruwais, 2021; Al-Shahri, 2021; Al-Jahni, 2019; Al-Bahrawi, 2015); the current research sought to reveal the level of teaching practices among Arabic language teachers in the intermediate stage in light of professional and life skills, and the problem of the current study was determined to reveal the level of teaching practices among Arabic language teachers in the primary stage in light of professional and life skills.

Study Objectives:

The current study aimed to determine:

- The teaching practices required for Arabic language teachers in the primary stage in light of professional and life skills.
- The level of teaching practices of Arabic language teachers in the primary stage in light of professional and life skills.

Study Questions:

The current study attempted to answer the following questions:

- What are the teaching practices required for Arabic language teachers in the primary stage in light of professional and life skills?
- What is the level of teaching practices among Arabic language teachers in the primary stage in light of professional and life skills?

Importance of the study:

The importance of the current study stems from the following:

- It helps researchers conduct similar research that reveals the level of teachers in teaching practices.
- Preparing a list of teaching practices required for Arabic language teachers in the primary stage in light of professional and life skills; it can be used to determine the level of teaching practices among teachers.
- It helps curriculum planners to include twenty-first century skills in Arabic language curricula at various educational levels.
- It helps teachers to include twenty-first century skills in their teaching practices.

Study Limits:

The current study was limited to:

- The teaching practices required for Arabic language teachers in the primary stage in light of professional and life skills, which are (flexibility and adaptation skills, initiative and self-direction skills, productivity and accountability skills, multicultural social interaction skills, leadership and responsibility skills).
- A sample of Arabic language teachers in the primary stage in Asir Education.
- Applying this study in the second semester of 2021/2022 AD

STUDY METHODOLOGY:

The current research used the descriptive analytical method; This is due to its suitability to the nature of the research and achieving its objectives.

Study Community and Sample:

The study community represents all Arabic language teachers in the primary stage in Asir Education, while the study sample consisted of (30) Arabic language teachers.

Study Terms:

Teaching Practices:

The researcher defines it procedurally as: The procedures and practical methods that Arabic language teachers in the primary stage use in teaching Arabic to their students; During the teaching process, so that these practices include professional and life skills (flexibility and adaptability skills, initiative and self-direction skills, productivity and accountability skills, multicultural social interaction skills, leadership and responsibility skills).

Professional and life skills:

The researcher defines them procedurally as: a set of skills that are included in the teaching practices of Arabic language teachers at the primary stage, to achieve appropriate teaching performance for professional and life skills, and include: (flexibility and adaptability skills, initiative and self-direction skills, productivity and accountability skills, multicultural social interaction skills, leadership and responsibility skills).

Theoretical Literature

21st century skills have been classified in many ways, the most important of which is the Partnership for 21st Century Skills P21 classification; where it divided them into three main areas, each of which includes sub-skills, and these areas are: (learning and innovation skills, information and communication technology skills, life and work skills; NSTA, 2013; P 21, 2006; Trilling and Fadel, 2013; Al-Saleh, 2013; Shalabi, 2014; Al-Helou, 2016; Al-Khazim and Al-Balawi, 2020; Al-Ruwais, 2020; Al-Sardiya, 2020; Al-Azab, 2020; Al-Ruwaished, 2021; Al-Otaibi, 2021; Ali, 2021). The following can shed light on the area of digital culture skills, which is the subject of the current study.

Life and work skills:

This type of skills focuses on skills related to life, profession and work; As it is necessary to prepare learners, it also deals with life skills that represent the intangible elements in individuals' daily lives, and are represented in personal and professional qualities as well. It means developing the individual's skills; so that he becomes self-directed, an independent learner, able to adapt to change, manage projects, bear responsibility, lead others, and achieve results. It includes the skill of flexibility and adaptation, the skill of initiative and self-direction, the skill of social interaction and multicultural interaction (social skills and understanding of multiple cultures), the skill of productivity and accountability, the skill of leadership and responsibility, and this can be explained in some detail as follows (Beer, 2011; Trilling and Fadel, 2013; Shalaby, 2014; Al-Ruwais, 2020; Al-Otaibi, 2020; Al-Azab, 2020; Ali, 2021):

The skill of flexibility and adaptation.

It means the individual's ability to adapt effectively to changes in responsibilities and systems, to prioritize and update them in work environments, as well as his ability to be flexible, deal positively with cases of achievement and failure, deal with criticism from others, negotiate and balance between wrong points of view and beliefs; to reach logical solutions. As well as adapting to roles, working effectively in different environments, benefiting from feedback, interacting through dialogue, discussion and balancing between different opinions and solutions. It also means preparing

individuals to be able to: deal with praise, obstacles and criticism positively, understand different points of view and beliefs, negotiate and evaluate them to reach practical solutions. It includes: Adapting to change; where the individual is able to adapt to laws, jobs and responsibilities, and to work effectively in an environment characterized by ambiguity and changing priorities, and flexibility; where the individual is able to deal positively with success, failure and criticism, as well as understanding, negotiating and balancing between different points of view and beliefs; to reach scientific solutions. The individual must have the ability to adapt to new roles and responsibilities, and to work effectively in an atmosphere of ambiguity and changing priorities. These skills can be developed by working on projects that gradually increase in complexity, and challenge the different abilities of individuals, and the individual differences between them; in order to change their way of working and adapt to developments.

Initiative and self-direction skills.

It means the extent to which an individual is able to manage time, formulate goals in light of achievable standards and indicators, as well as the ability to work independently, accomplish tasks, prioritize, self-learning, monitoring, controlling, directing and self-evaluating. It is the ability to set measurable goals, choose priorities, take initiatives in developing work, and the ability to develop work in a critical manner. It also means the ability to set logical goals and follow up on their achievement through: strategic and scientific planning, self-learning and independent work.

It also means preparing individuals to be able to: manage goals and time, set goals with tangible and intangible standards, achieve a balance between short-term and strategic goals, use time, manage workload effectively, work independently, identify tasks and prioritize them, accomplish without direct supervision, self-direction from the individual to himself, and go beyond mastering skills to exploring and expanding personal learning and opportunities; to gain experience, and critically reflect on their previous experiences; to direct their future progress. These skills can be developed by providing individuals with an appropriate level of freedom and providing various activities, such as role-playing, theatrical acting, and field work.

Productivity and accountability skills.

It means the extent to which an individual is able to make decisions, plan, prioritize, bear responsibilities, be transparent, be accurate in judgment and evaluation, employ precise standards in work, manage projects, face challenges, add new things to products, and improve final outputs. It is the ability to achieve goals, complete work within a specific timetable, compare work in light of specific standards, produce cultural or material knowledge that serves goals, and commit to lifelong learning. It also means the ability to set goals, plan to achieve them, face challenges and obstacles, work positively and ethically, manage time, participate effectively, and review and hold accountable the results of work, including: Productivity; as the individual is able to perform a task, or innovate a product using time management skills, goal setting, prioritization, and accountability: as the individual is able to bear responsibilities for the procedures necessary to perform the task, or innovate the product.

It also means preparing individuals; To be able to: manage projects, set and achieve goals in the face of obstacles, pressures and competition, prioritize work, plan to achieve desired results, demonstrate results, and demonstrate additional characteristics associated with producing high-quality products: such as working positively and ethically, performing multiple tasks, participating actively and accurately in work, cooperating, taking responsibility for results, completing work within a specified time frame, and productivity in business terms means (efficiency.

Social interaction and multicultural interaction skills (social skills and understanding of multiple cultures).

It means the extent to which an individual is able to work in diverse groups and teams, social interaction, interact with others, accept cultural differences, and be able to know when listening and

when speaking is appropriate, and deal with cultural differences and different ideas. It also means preparing individuals to be able to: direct individuals in a professional and respectful manner, respect different cultures, respond with an open mind to different ideas and values, and activate social and cultural differences to create new ideas. These skills can be developed by designing interconnected learning environments that provide activities that work to resolve differences between individuals.

Leadership and responsibility skills

It means the extent to which an individual is able to lead a team, bear responsibilities, direct, influence others, prioritize the public interest, be flexible and positive in management, distribute tasks, and follow up on work to reach the final product. It is working to achieve common goals, and using individual communication to train others to acquire skills, and the ability to use personal communication skills, and problem-solving skills; To influence others and direct them towards the goal. It also means the ability to bring about change, positive influence to push others to reach their full potential, and act responsibly to achieve goals while taking into account the diversity of others' interests and abilities. It also means preparing individuals to be able to: lead and direct others, use personal communication and problem-solving skills to influence others and direct them towards the goal, and invest in the strengths of others to achieve common goals. It includes: leadership and responsibility; as the individual is able to work with the interest of the larger community in mind.

Many studies have focused on the process of evaluating the curriculum and the skills of the twenty-first century. These studies include the following: (Saif, 2022; Bahrawi, 2021; Dawoud, 2021; Al-Ruwaished, 2021; Al-Shabl, 2021; Al-Shammari, 2021; Al-Shahri, 2021; Hilal, 2021; Baghdadi, 2020; Al-Khazim and Al-Balawi, 2020; Al-Sardiya, 2020; Al-Shahrani, 2020; Abdul-Barr, 2020; Al-Otaibi, 2020; Al-Azab, 2020; Al-Maghribi and Bani Khalaf, 2020; Hindawi, 2020; Al-Jahni, 2019; Al-Harbi, 2019; Al-Arfaj, Al-Khalidi and Al-Shahri, 2019; Al-Qahtani, 2019; Hajjah, 2018; Al-Ghamdi, 2018; Rabat, 2018; Abdel-Aal, 2018; Al-Mansour and Al-Adili, 2018; Al-Helou, 2016; Al-Ghamdi and Muhammad, 2016; Hussein Al-Arja, 2009). These studies recommended the need to pay attention to the twenty-first century skills of learners in various disciplines, and to include them in the curricula. This study is a response to previous studies.

STUDY PROCEDURES AND PREPARATION OF ITS MATERIALS AND TOOLS:

First: A list of teaching practices in light of professional and life skills:

The list aimed to identify the teaching practices necessary for Arabic language teachers in the primary stage in light of professional and life skills as one of the areas of twenty-first century skills. The researcher relied in building the list on reviewing some books, references, studies and research related to the research topic, as well as the opinions of some specialists in curricula and methods of teaching the Arabic language. The list consisted of teaching practices related to professional and life skills that fall under five sub-skills: flexibility and adaptation skills, under which (10) sub-practices fall, initiative and self-direction skills, under which (10) sub-practices fall, productivity and accountability skills, under which (10) sub-practices fall, multicultural social interaction skills, under which (10) sub-practices fall; thus, the list consisted of (50) sub-practices.

Second: Questionnaire of teaching practices in light of professional and life skills:

The aim of the questionnaire and its description:

The questionnaire aimed to measure the teaching practices of Arabic language teachers in the primary stage in light of professional and life skills. The questionnaire was prepared by developing the previously prepared list; It consisted of the teaching practices that resulted from that list and related to professional and life skills according to five main skills: (flexibility and adaptation skills, initiative and self-direction skills, productivity and accountability skills, multicultural social

interaction skills, leadership and responsibility skills), and this will be measured through (50) subpractices.

Method of correcting the questionnaire:

The questionnaire was corrected by estimating the degrees (5-4-3-2-1) for each of (fully applicable - very applicable, sometimes applicable - slightly applicable - not applicable at all). The questionnaire scores ranged between (50-250) degrees.

Validity and reliability of the questionnaire:

Validity of the questionnaire:

The validity of the questionnaire was confirmed through content validity; The questionnaire was presented to six arbitrators in the field of curricula and teaching methods, to express their opinion on it in terms of: its suitability for the research sample, and the relevance of the questions to the topic, and the arbitrators confirmed that it was appropriate.

Questionnaire reliability:

The questionnaire reliability was calculated using the Cronbach's alpha equation (α coefficient), using the SPSS (18) statistical program. The reliability coefficient reached (0.946), and thus the questionnaire has an appropriate degree of reliability.

Application of research tools:

The study tool was applied in the academic year 2021/2022 AD. After completing the application, it was corrected, and the grades were recorded in preparation for statistical processing, discussion and interpretation.

RESEARCH RESULTS:

Answering the first question:

The first question stated: What are the teaching practices necessary for Arabic language teachers in the primary stage in light of the twenty-first century skills? To answer this question, a list of teaching practices necessary for Arabic language teachers in light of professional and life skills was prepared, and it was presented to the arbitrators, and a list was reached, which is explained in detail in the research procedures.

Answering the second question:

The question stated: What is the level of teaching practices among Arabic language teachers in the primary stage in light of professional and life skills? To answer this question, the significance of the averages, standard deviation and level were calculated; as shown in the following table:

Table (1): Averages and standard deviations in the main teaching practices and the questionnaire as a whole

The field	Average	Standard	ratio	Arrangement
		deviation		
Performance related to flexibility and	10.22	2.82	36.46	the third
adaptability skills	18.33		%	
Performance related to initiative and self-	17.57	3.59	35.14	Fourth
direction skills			%	
Performance related to productivity and	16.73	3.71	33.46%	Fifth
accountability skills				
Performance related to multicultural social	19.16	4.42	38.32	the first
interaction skills			%	

Performance related to leadership skills and responsibility	15.10	2.56	30.2 %	the second
Dimensions as a whole	52.63	6.74	21.05 %	

The previous table shows a low level of teaching practices among Arabic language teachers in light of the twenty-first century skills; as the averages of the questionnaire areas came as follows: the average of practices related to flexibility and adaptation skills (18.33), at a rate of (36.46), the average of practices related to initiative and self-direction skills (17.57), at a rate of (35.14), the average of practices related to productivity and accountability skills (16.73), at a rate of (33.46), the average of practices related to multicultural social interaction skills (19.16) at a rate of (38.32), the average of practices related to leadership and responsibility skills (15.10) at a rate of (30.2), the general average of practices as a whole (52.63), at a rate of (21.05), which is limited to the low level, and thus the second question of the research questions was answered, which states: What is the level of appropriate teaching practices for Arabic language teachers in the primary stage in light of professional and life skills?

Second: Interpretation of the results:

Second: Interpretation of the results: The research results showed a low level of teaching practices among Arabic language teachers in the primary stage in light of professional and life skills. This result can be attributed to: Arabic language teachers' use of traditional teaching practices; These practices do not care about students' life and work skills, including: encouraging students to interact with others and accept cultural differences, or good planning, prioritizing and making decisions, or taking responsibility for tasks related to lessons, or transparency and accuracy in judgment and evaluation, or managing projects and facing challenges, or leadership and influencing others and taking responsibility for team performance, or flexibility and positivity in management and distributing tasks, or following up on work to achieve results successfully and effectively, or flexibility and positivity in cases of achievement and failure, or accepting criticism, negotiation and balancing between beliefs and other points of view, or independence, completing tasks and prioritizing, or selflearning and self-organized through the ability to monitor, self-direct and evaluate their achievements, the ability to manage time and organize work, or adapt to their roles within a cooperative work team, or setting priorities and arranging them in the tasks assigned to them, or selfmonitoring instead of direct supervision, or asking questions about the topic to be learned, or listening and listening well to the opinions of others, or working with individuals of different cultures effectively, or developing positive attitudes towards cultures And different civilizations, adopting work ethics during learning. Thus, the evaluation of the practices of Arabic language teachers at the primary stage in light of the skills of the twenty-first century came low. Third:

Research Recommendations And Suggestions:

Recommendations:

In light of the results of the study, a set of recommendations can be presented, the most important of which are:

- Linking teachers' teaching practices to the skills and requirements required by the era.
- Holding training courses that focus on twenty-first century skills.
- Developing teachers' teaching practices in teaching Arabic.
- Paying attention to the professional development of teachers in various teaching fields; to keep pace with development and innovation in the field.

Suggested research:

In light of the results of the research and its recommendations, the following research points can be proposed:

- The level of teaching practices among Arabic language teachers in the intermediate stage.
- The level of Arabic language teachers' methods of developing twenty-first century skills.

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REFERENCES

- Ibrahim, Magdy Aziz (2005). Thinking from an educational perspective, its definition, nature, skills, and development of its patterns, Cairo: Alam Al-Kutub.
- Abu Kamil, Ruba Al-Sayed and Darwish, Atta Hassan and Abu Shakir, Muhammad Suleiman (2021). Evaluation of Palestinian science and life books for the upper primary stage 5-8 in light of twenty-first century skills. Journal of the Islamic University for Educational and Psychological Studies. Vol. (29). No. (1). January. 209-235.
- Al-Baz, Marwa Muhammad (2013) Developing the science curriculum for the third preparatory grade in light of twenty-first century skills. Journal of Scientific Education. Vol. (16). No. (6). 191-231.
- Bahrawi, Atef Abdullah (2021). The degree of possession of graduate students in special education specializations of twenty-first century skills. Journal of Special Education and Rehabilitation. Special Education and Rehabilitation Foundation. Vol. (13). No. (44). September. 1-35.
- Al-Bahrawi, Fathi Mabrouk (2015). Professional performance standards required for student teachers in light of twenty-first century skills. Arab studies in education and psychology. Arab Educators Association. No. (63). 435-484. Baghdadi, Manal Saleh (2020). Evaluation of the content of the science book for the third intermediate grade in light of twenty-first century skills. Studies in curricula and teaching methods. No. (248). 73-96.
- Al-Balawi, Awatif Falakh and Al-Balawi, Aisha Muhammad (2019). A vision for a training program to develop some twenty-first century skills among elementary school mathematics teachers in Tabuk City. Arab Studies in Education and Psychology. Issue (107). March. 387-433.
- Al-Turki, Kholoud Ibrahim and Al-Jabr, Jabr Muhammad (2020). Twenty-first century skills included in the Physics 1 book in the secondary stage in the Kingdom of Saudi Arabia. Journal of Educational Sciences. Imam Muhammad bin Saud Islamic University. Issue (24). August. 15-70.4.
- Al-Jahni, Amal Saad (2019). Evaluating the performance of science teachers in light of twenty-first century skills. Arab Studies in Education and Psychology. Arab Educators Association. Issue (116). December. 23-50.
- Hajjah, Hakam Ramadan (2018). The extent to which science books for the upper basic stage include twenty-first century skills. Educational Sciences Studies. The University of Jordan. Vol. (45). Issue (3). 163-178.
- Al-Harbi, Ibrahim Salim (2019). The extent of including 21st century skills in mathematics textbooks for the third intermediate grade. Journal of Education. Al-Azhar University. No. (183). Vol. (1). July. 512-554.
- Hussein Al-Arja, Muhammad (2009). The level of quality of the content of the science book for the eighth grade in light of international standards and the extent of students' acquisition of them. Master's thesis. The Islamic University. Gaza.

- Hafni, Maha Kamal (2015). Skills of the twenty-first century teacher. The twenty-fourth scientific conference. The Egyptian Association for Curricula and Teaching Methods. Teacher preparation programs for excellence. Cairo: Ain Shams University. Dar Al-Diafa. August 12-13.
- Al-Halou, Narmin Mustafa (2016). Home Economics Teachers' Awareness of Twenty-First Century Skills in Light of Professional Development and Their Attitudes Towards Them. Journal of the Faculty of Education. Kafr El-Sheikh University. Vol. (16). No. (3). 461-540.
- Al-Khazim, Khaled Mohammed and Al-Balawi, Abdullah Marzouq (2020). The Level of Teaching Practices among Primary School Mathematics Teachers to Develop Learning and Creativity Skills According to the Requirements of the Twenty-First Century. Journal of Mathematics Education. The Egyptian Society for Mathematics Education. Vol. (23). No. (5). July. 28-56.
- Al-Khazim, Khaled and Al-Ghamdi, Mohammed (2016). Content Analysis of Mathematics Books for Upper Primary Grades in Light of Twenty-First Century Skills. Thesis of Education and Psychology. Imam Muhammad bin Saud Islamic University. (53). 61-88.
- Dawoud, Samir Saeed (2021). The Effect of Free Reading on the Development of Deep Reading and Some Twenty-First Century Skills among Student Teachers at the Faculty of Education. Educational Journal. Sohag University. November. 301-343.
- Rabat, Bahira Shafiq (2018). The effectiveness of combining the thinking maps strategy and the dual-situation-based learning model to develop some twenty-first century skills in the study of geometry. Journal of Mathematics Education. The Egyptian Society for Mathematics Education. (21). (12). October. 277-368.
- Al-Ruwais, Aziza Saad (2021). Evaluating teaching practices in light of the twenty-first century skills of primary school teachers in Riyadh. Journal of the Islamic University for Educational and Social Sciences. Islamic University of Madinah. Issue (5). March. 229-277.
- Al-Ruwaished, Noha Rashid (2021). The extent of the availability of twenty-first century skills in teaching mathematics according to the opinions of its teachers in the State of Kuwait. Journal of the Faculty of Education in Educational Sciences. Ain Shams University. Vol. (45). Issue (1). 273-312.
- Subhi, Nisreen Hass (2016). The extent of including twenty-first century skills in the developed science curriculum for the first intermediate grade in the Kingdom of Saudi Arabia. Journal of Educational Sciences. Vol. (1), Issue (1), 9-44.
- Al-Sardiya, Haya Khalaf (2020). Twenty-first century requirements for special education teachers in light of the Kingdom's Vision 2030. International Journal of Research in Educational Sciences. Vol. (3). Issue (1). 387-421.
- Al-Sulaiti, Dhabia Saeed (2015). A proposed vision for reading teacher skills in light of the requirements of the twenty-first century in independent schools in the State of Qatar. Education. Al-Azhar University. Egypt. 164. (3).
- Saif, Aithan Hassan (2022). Developing mathematics curricula for the secondary stage in the Republic of Yemen according to twenty-first century skills. Educational Journal. University of Kuwait. Vol. (36). No. (144). September. 193-220.
- Al-Shabl, Manal Abdul Rahman (2021). The reality of digital learning in enhancing twenty-first century skills from the point of view of mathematics teachers and supervisors in the secondary stage in the Kingdom of Saudi Arabia. Shaqra University Journal for Humanities and Administrative Sciences. Vol. (15). 343-367.

- Shalaby, Nawal Muhammad (2014). A proposed framework for integrating twenty-first century skills into science curricula in basic education in Egypt. International Specialized Educational Journal. Vol. (3). No. (10). 1-33.
- Al-Shammari, Salman Hadid (2021), The degree of acquisition of twenty-first century skills by mathematics major students at Shaqra University from the perspective of faculty members. Educational Journal. Kuwait University. Vol. (35). No. (139). June. 213-254.
- Al-Shahrani, Badria Muhammad (2020). Evaluation of the content of science curricula in the intermediate stage in light of twenty-first century skills. Educational Journal. Sohag University. Vol. (72). 417-468.
- Al-Shahri, Abdulrahman Ali (2021b). The level of inclusion of twenty-first century skills in textbooks in the intermediate stage. Educational Sciences Journal. King Saud University. Vol. (33). No. (2). 307-333.
- Al-Saleh, Badr Abdullah (2013). Twenty-first century skills: learning for life in our time. King Saud University. Scientific publishing and printing.
- Abdel-Barr, Abdel-Nasser Muhammad (2020). Developing the mathematics curriculum within Egypt's vision for sustainable development 2030 and its impact on the development of some twenty-first century skills among middle school students. Journal of Mathematics Education. The Egyptian Society for Mathematics Education. (23). (7). October. 7-81.
- Abdel-Aal, Muhammad Sayed (2018). The effectiveness of a program enhanced with Web2 tools in developing 21st century skills among mathematics teachers at the Faculty of Education. Journal of Mathematics Education. The Egyptian Society for Mathematics Education. (21). (6). 214-269.
- Al-Otaibi, Reem Hamoud (2020). The reality of 21st century skills. Journal of Reading and Knowledge. The Egyptian Society for Reading and Knowledge. No. (230). December. 323-354.
- Al-Arfaj, Abeer Mohammed and Al-Khalidi, Haya Hatem and Al-Shahri, Haya Mohammed (2019). The degree of inclusion of 21st century skills in the common first-year courses. Journal of the Faculty of Education. Port Said University. No. (28). 176-206.
- Al-Azab, Rehab Amin (2020). Characteristics of faculty members in light of 21st century skills and their relationship to providing students with 21st century skills from the perspective of undergraduate students. The International Journal of Educational and Psychological Sciences. No. (55). 101-155.
- Ali, Iman Salama (2021). Curricula and 21st Century Skills. Educational Sciences. Graduate School of Education. Cairo University. Vol. (29). Special Issue. February. 123-140.
- Al-Ghamdi, Mona Saad (2018). Training Needs and Challenges Facing Mathematics Teachers in Light of the Skills of the 21st Century Teacher. Journal of the Faculty of Education. Tanta University. Vol. (70). No. (2). April. 468-528.
- Al-Farra, Maysoun Nasr (2010). Analysis of the Book of Our Beautiful Language for the Fourth Grade in Light of Creative Thinking and the Extent of Students' Acquisition of It. Master's Thesis. Faculty of Education. Islamic University. Gaza.
- Al-Kaltham, Hamad (2013). Content Analysis of the Book of Jurisprudence 1 for the Secondary Stage in the Kingdom of Saudi Arabia in Light of the Twenty-First Century Skills. Al-Azhar University Knowledge Journal. (54). 1. 224-243.
- Mahmoud, Ahmed Hassan (2018). The Effectiveness of an Enrichment Program Based on Some Twenty-First Century Skills to Develop Mathematical Strength and Mathematical Thinking

- among Academically Outstanding Students in the Preparatory Stage. Journal of Mathematics Education. The Egyptian Society for Mathematics Education. (21). (11). 326-340.
- Al-Maghribi, Ayat Muhammad and Bani Khalaf, Mahmoud Hassan (2020). The Level of Acquisition of Digital Culture Skills by Eighth Grade Students in Light of the Twenty-First Century Skills in Science Education. Al-Quds Open University Journal for Educational and Psychological Research and Studies. Al-Quds Open University. Vol. (11). No. (30). 17-29.
- Malham, Amani Muhammad (2017). The Degree of Availability of Twenty-First Century Skills in the Technology Course for the Upper Basic Stage and the Degree of Students' Possession of Those Skills. Master's Thesis. An-Najah National University. Nablus.
- Al-Mansour, Gharbi Suleiman and Al-Adli, Abdul Salam Musa (2018). The degree of inclusion of science books for the basic education stage in Jordan for twenty-first century skills. Master's thesis. Faculty of Educational Sciences. Al al-Bayt University.
- Hilal, Samia Hassanein (2021). The effectiveness of a developed unit in light of the STEM cognitive integration approach in developing some twenty-first century skills among primary school students. Journal of Mathematics Education. Vol. (24). No. (3). January. 221-254.
- Hindawi, Imad Muhammad (2020). The effect of using the service learning strategy in learning chemistry to develop twenty-first century skills among students, chemistry teachers at the Faculty of Education. Journal of Science Education. The Egyptian Society for Science Education. Vol. (23). No. (3). March. 151-195.
- Al-Yami, Naji Muhammad (2022). Evaluation of teaching practices of primary school mathematics teachers in light of twenty-first century skills. Master's thesis. College of Education. King Khalid University.
- Younis (2016). Evaluation of the geography curriculum in the secondary stage in light of twenty-first century skills. Journal of the Educational Association for Social Studies. Egypt. (76). 63-92.
- Al-Farra, Maysoun Nasr (2010). Analysis of the book Our Beautiful Language for the fourth grade in light of creative thinking and the extent to which students acquire it. Master's thesis. College of Education. Islamic University. Gaza.
- Baghdadi, Manal Saleh (2020). Evaluation of the content of the science book for the third intermediate grade in light of twenty-first century skills. Studies in curricula and teaching methods. No. (248). 73-96
- Astleinter.H, (2002). Teaching Critical Thinkining Journal of Instructional Psychology, v(29), n(2), 53-76.
- Bybee, W,R. (2010). The Teaching of Science: 21 St Century Skills Perspectives, NSTA Press.
- Ken, K. (2010). 21 St Century Skills. Why they matter, What They are, and How we get there? Available at: http://www.Innovationlabs. Com.plsd/resources/kenkay.pdf.
- Partnership for 21 st Century Skills(2006). Framework for 21st CenturyLearning. Retrieved from: http://www.battelleforkids.org/networks/p21.
- Peterson. A.d.(2003). Schools Across Frontiers: The story of the International Baccalaureate and the United World Colleges USA: Carus Publishing Company, ISBNO. 49505-8126.
- Pinke, D.H, (2005). A whole New Mind the Penguin Group New York, USA.
- Steele Jennifer L., Hamilton Laura S., Stecher Brian M. (2010). Incorporating Student Performance Measures into Teacher Evaluation Systems. the RAND Corporation
- The National Science Teacher Assocation.(2013). Quality Science Education and 21 St Century Skills. http://www. Nsta. Org.

- Ken, K.(2010). 21 St Century Skills. Why they matter, What They are, and How we get there? Available at: http://www.Innovationlabs. Com.plsd/resources/kenkay.pdf.
- Ken, K.(2010). 21 St Century Skills. Why they matter, What They are, and How we get there? Available at: http://www.Innovationlabs. Com.plsd/resources/kenkay.pdf.