Creative Education, 2026, 17(3), 342-357
https://www.scirp.org/journal/ce
ISSN Online: 2151-4771
ISSN Print: 2151-4755

The Use of Cognitive and Behavioral Learning Theories to Improve Leadership and Management Competence for Middle School Principals in Kuwait: A Field Study

Falah Dhuwaihi Al-Swairi Al-Ajmi

Department of Basic Sciences, College of Arts and Sciences, Amman Arab University, Amman, Jordan
Email: f.dhuwaihi@aau.edu.jo, falahalajmi67@gmail.com

How to cite this paper: Ajmi, F. D. S. (2026). The Use of Cognitive and Behavioral Learning Theories to Improve Leadership and Management Competence for Middle School Principals in Kuwait: A Field Study. *Creative Education, 17,* 342-357.
https://doi.org/10.4236/ce.2026.173022

Received: January 1, 2026
Accepted: March 10, 2026
Published: March 13, 2026

Copyright © 2026 by author(s) and Scientific Research Publishing Inc.
This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).
http://creativecommons.org/licenses/by/4.0/
Open Access

Abstract

The paper examines whether principals' use of cognitive and behavioral learning theories relates to stronger leadership and administrative competence in Kuwaiti middle schools. Using a descriptive-analytical survey of principals, it reports strong positive associations between learning-theory use and perceived competence, and it reports differences by academic qualification. It also presents an association between learning-theory use and students' academic achievement and lists implementation challenges (training, time, support, resistance).

Keywords

Cognitive Learning Theory, Behavioral Learning Theory, Leadership and Management Competence

1. Introduction

Learning process is looked upon as one of the most essential topics with which scientists and educationalists have interested over ages. It varies considerably according to learning styles and differs markedly from one individual to another one and from one environment to another. This, in turn, leads to postulate a set of theories whose goals are set forth to comprehend how knowledge acquisition is made. The theories cast light on various factors that affect learning whereby they are ranged from environmental and behavioral factors up to mental and social processes. Accordingly, viewpoints are very much divergent as to how to accomplish active learning simply because some theories have focused on a direct exper-

iment, while others on the importance of interaction.

There are a lot of theories and each one individually introduces a unique frame to deal with knowledge acquisition. While the theory of behavioral learning is concerned with the concept of the environment influence whose manifestations are shown by means of rewards and punishments to reinforce particular behaviors, the theory of cognitive learning concentrates on mental processes like processing and organizing information whereby thought plays a pivotal role in learning. The theory of social learning shows the significance of observation and imitation in a way that individuals' learning resides in observing others' behaviors. On a different footing, the theory of constructive learning is based on the concept of how a learner creates his self-knowledge by means of different experiments. This makes learning acquire actively personal properties. Finally, the theory of experimental learning deals with how direct expertise and environmental interaction reinforce profound understanding. In a word, all of these theories contribute to forming learning strategies and monitor leaning practices (Abdel Rahman, 2021).

The theory of cognitive learning is considered one of the most influential theories in educational psychology. It is chiefly based on metal processes that play a vital role in knowledge acquisition. Rather than dealing with a mere response of environmental stimuli, it throws light on how a learner is processing information very actively. The mental processes the theory adopts include awareness, remembering, understanding and analysis and this reflects the significance of critical thinking in learning. This theory covers various main concepts, such as "mental representation" whereby a learner develops mental models which reflect his understanding of the surrounding environment. It also concerned with how information is transmitted from a short-term memory into a long-term one and this, in turn, provides the learner with the possibility of restoring knowledge and employing it in new contexts (Harasim & Atiwway, 2020).

Viewed as an essential theory in psychology, the theory of behavioral learning studies both measurement-based behavior and variable-based behavior, which are basically constituted by means of the environment. The theory hypothesis postulates that learning is the product of a certain interaction among individuals and their own environments and above all their behaviors can either be reinforced or be belittled via rewards and punishments. Behaviorists believe that any behavior is interpreted by means of previous experiences so that learning would as a whole be based on responses of external stimuli. Moreover, the theory deals with numerous major concepts, particularly the concepts of prior conditions and enhancement. On their part, behaviorists are of the opinion that learning requires repeating experiments and positive enhancement entails that desired behavior repetition is more likely increased, while negative enhancement may lead to minimize undesired behaviors (Barbar, 2024).

It is worth-noting is that educational leadership proficiency is seen as a vital element required to make educational institutions successful in relation to achieve

their goals. Leadership efficiency does not only include the ability of management of individuals and resources, but it also covers the ability of inspiring and stimulating teachers and students. In doing so, profound understanding is required to deal with learning and cognition and above all communicative skills are urgently needed to aid leaders to convey visions and goals very obviously. On this principle, administrative proficiency in the educational field is considered one of the major bases adopted to ensure the active and effective continuity of educational processes. Such a proficiency compresses the ability of planning, organizing and managing human and material resources in educational institutions whereby it, by itself, contributes to enhance the public performance and achieve educational goals (Abu Saada et al., 2022).

Theories of cognitive and behavioral learning are definitely effective tools to improve school headmasters' leadership and administration proficiency and to contribute to reinforcing a positively educational environment. When the principles of behavioral learning are applied, school headmasters are able to make use positive enhancement which is directed to stimulate teachers and students to adopt new styles for the sake of enriching the educational quality. Meanwhile, the cognitive principles help the headmasters design influential training strategies which are based on how to process information and how to develop skills. When being integral with each other, the two theories are able to create some sort of culture, cooperation and interaction between teaching staff members and this leads to carry out educational institutions' targets (Boukhtala, 2022).

In accordance with the exploratory study conducted by the researcher, It has been shown that the challenges faced by high schools' headmasters in Kuwait are increased in the light of improving leadership and administration proficiency. This situation requires active strategies to support the achievement of educational goals. In spite of the importance of theories of cognitive and behavioral learning to understand the way in which individuals can learn and interact with their environment, a gap is still there in relation to employing these theories in educational contexts.

Central to what has been stated, the study problem pivots on the following issue: lack of the clear-cut impact of the application of the theories to the high school headmasters' leadership and administration proficiency. Most of those headmasters drastically face difficulties in blending strategies of cognitive and behavioral learning with their own daily practices and this negatively affects the ability to promote teachers and students and to accomplish distinctive educational results.

The Study Questions are:

1) What is the impact of employing theories of cognitive and behavioral learning on improving high school headmasters' leadership and administration proficiency in Kuwait?

2) What is the relationship drawn between the applications of strategies of cognitive and behavioral learning and high school students' academic results in Kuwait?

3) How do personal variables (i.e. age, years of experience and educational level) affect the application of learning theories to school administration?

4) What are the challenges faced by high school headmasters in employing learning theories to improve learning and administrative performance?

5) The Study Objectives:

The study aims are:

1) To determine the impact of employing theories of cognitive and behavioral learning on improving high school headmasters' leadership and administration proficiency in Kuwait.

2) To explore the relationship drawn between the applications of strategies of cognitive and behavioral learning and high school students' academic results in Kuwait.

3) To analyze the influence of personal variables (i.e. age, years of experience and educational level) on the application of learning theories to school administration.

4) To know the challenges faced by high school headmasters in employing learning theories to improve learning and administrative performance.

The Significance of the Study:

1) The Theoretical Significance:

The theoretical significance of the study contributes to reinforcing the academic understanding of theories of cognitive and behavioral learning and their applications to the field of educational leadership and administration. Analyzing the relationship drawn between these theories and leadership and administration proficiency would make the study add a new dimension to the current literature. This definitely paves the way to the researchers and practitioners to explore new educational strategies in harmony with the urgent requirements of the high schools in Kuwait, and hence, the results contribute to developing theoretical models which are concerned with how to reinforce educational and administrative performance. This state of affairs enables researchers to conduct forthcoming studies chiefly based on those results whereby this study would be a useful reference to those who are interested in learning and educational leadership.

2) The Empirical Significance:

The empirical significance of the study provides direct and applicable recommendations to school headmasters as to how theories of learning are employed to improve their leadership and administration performance. The concluding results of the study are to help to determine the challenges faced by the headmasters and this enables them to develop active strategies in an attempt to overcome them. When improving the styles of leadership and administration, the headmasters are able to create a positive educational environment which supports innovations and interactions among teachers and students, contributes to reinforcing students' academic level and develops the quality of learning in Kuwait. In addition, this study will enhance headmasters' abilities to make decisions based chiefly on ongoing data and analyses whereby educational environments would be actively developed in light of teachers' and students' needs.

2. The Study Approach

The study is mainly based on analytic-descriptive approach to collect and analyze the data that are closely related to the impact of applying theories of cognitive and behavioral learning to the high school headmasters' leadership and administration proficiency in Kuwait. This approach provides researchers with the full understanding of educational phenomena, simply because it basically focuses on describing and analyzing the relations among various variables without involving directly the educational environment. The study methodology includes the use of a questionnaire as being the central instrument to collect data. The questionnaire is thoroughly designed cover a set of variant questions which reflect different aspects of the study, beginning with the effect of learning strategies on stimulating teachers and ending up with the way in which headmasters' personal variables affect the activity of the application of learning theories.

3. The Theoretical Frame

Leadership and Administration Proficiency

Leadership and administration proficiency is viewed as being one of the most basic elements that contribute to making the educational system successful. On an educational ground, the proficiency reflects some sort of ability which is devoted to guide and manage educational processes very effectively in an attempt to achieve learning goals and improve students' academic performance. Such proficiency requires a set of skills which enable educational headmasters to lead their teams actively and develop promoting and effective educational environments. On the one hand, leadership proficiency stands for the ability of monitoring others to accomplish common targets. An educational leader's basic properties include strategic vision, the ability of interacting with others actively and stimulation and inspiration. The successful educational leader does not only manage daily operations, but he also creates school culture to promote innovation and cooperation. On the other hand, administration proficiency is concerned with the ability of planning, organizing and carrying out available resources influentially. This entails that headmasters should profoundly understand human, material and technical resources and at the same time how they are used to ensure in relation to achieve educational goals. The administration missions comprise performance assessment, time management and the development of strategies to improve learning quality. Moreover, headmasters must have considerably analytic skills in order to make decisive decisions in the light of data and documents (Jamaan & Barry, 2020).

According to the researcher' viewpoint, enhancing leadership and administration proficiency is educationally looked upon as a necessary issue for the success of educational institutions. A teacher has to develop leadership and administration skills via presenting training programs and workshops which contribute to improving educational environments and activating very considerably academic

performance. Thus, leadership and administration proficiency is not only a matter of individual skills, but rather it is also an ongoing process requiring permanent commitment and development to accomplish desired educational goals.

The Significance of Leadership and Administration Proficiency and the Improvement of Educational Performance

Leadership and administration proficiency play a vital role in educational performance whose improvement requires headmasters and leaders who have necessary skills and proficiencies in order to monitor the educational process successfully. In a complex and variant environment, it becomes an urgent need to have active leaderships able to adapt to considerable changes and challenges. This significance is as follows (Abu-Sadaa et al., 2022):

1) Enhancement of educational environment

Leadership and administration proficiency contribute to initiating a positive educational environment whose priority is to support learning. When leaders are able to draw close relations with teachers and students, this would enhance the spirit of cooperation and participation. Promoting teachers to share ideas and experiences with each other leads to improve the quality of learning and provides students with much more support.

2) Improvement of teaching strategies

Administrative leaders have the ability to develop active teaching strategies in accordance with students' needs in a way that it would contribute to increasing their academic level and enhance teachers' ability to present a distinctive educational content.

3) Active management of resources

Administration proficiency requires the ability of managing human and material resources. When planning proficiently and distributing resources actively, headmasters are able to provide teachers and students with a suitable environment. This covers that modern tools and techniques are to be offered and above teachers are furnished with ongoing occupational support.

4) Teachers' and students' stimulation

The active leadership is considered a source of both teachers' and students' inspiration.

When teachers feel that they are fully supported and stimulated by their administration, their performance would be much more positive. Moreover, promoting students by means of various and promising educational activities would contribute to reinforcing their academic success.

5) Adaptation to changes

Under the influence of the rapid changes in the field of education, administrative leaders play a pivotal role in making themselves adapted to such changes which are either concerned with adopting new techniques or with innovative educational strategies. In fact, leadership proficiency enables headmasters to guide their teams in a way that educational distinctiveness would be created.

In the researchers' opinion, enhancing leadership and administration profi-

ciency is something necessary to have distinctive educational performance. Schools and educational communities have to develop leadership and administration skills by means of permanent training programs. Throughout, it is possible to improve educational performance and create promising educational environments whereby students are able to face future challenges trustily. Both active leadership and good administration are not only tools to get success, but they also represent a common responsibility which requires a true commitment on educational scholars' part.

4. Cognitive Theories of Learning

Cognitive theories of learning are seen as the essentials up on which numerous teaching strategies and educational curricula are based. The theories concentrate on how individuals process and understand information and on which mental processes are to contribute to acquiring knowledge. These theories, fallen within the ambit of dramatic changes of education, have become a vital means to understand the way students learn and the way educational strategies are improved in conformity with their needs (Amer & Edward, 2024).

4.1. Definition of Cognitive Theories of Learning

Attab and Haddad (2022) define cognitive theories of learning as a set of thoughts which focus on the mental processes taken place during learning, like attention, memory, understanding and restoration. Their theories aim to interpret how learners acquire information and how they organize them in their minds.

4.2. The Components of Cognitive Theories of Learning

These theories include different basic components (Awjan, 2024):

- Cognitive Process: it deals with information processing. It includes attention, memory, understanding and restoration. These processes are so necessary to understand how learners interact with new information.
- Mental Representation: it refers to the method according to which individuals organize information in their minds, whereby these representations may be drawings, mental maps or mental models which help to restore information later.

4.3. Well-Known Theories of Cognitive Learning (Otaibi, 2025)

- The Theory of Information Processing: it considers the human mind as a computer whereby information is received, processed and then stored. The theory shows the significance of how to receive and restore information.
- Jean Piaget's Theory: It focuses on the developmental stages during which children have passed to acquire knowledge. It shows how learning is an active process which entails that teachers are required to create new thoughts via experiences.
- Vygotsky' Theory: It casts light on the significance of the social and cultural

context in the field of education. It shows the role played by the interaction with others to develop understanding.

4.4. Applications of Cognitive Theories of Learning

Cognitive theories of learning are used to design curricula and develop teaching strategies. For instance, teachers can use mental maps to help students organize information or apply active learning strategies in an attempt to reinforce interaction and participation (Farhat, 2022).

According to the researcher's attitude, cognitive theories of learning are necessary to understand how students learn and how learning strategies are improved. Teachers and school headmasters have to adopt such theories and have to apply their principles in classrooms in order to reinforce learning experiences.

5. Behavioral Theories of Learning

Behavioral theories of learning are the ones which educational psychology is chiefly based. They concentrate on how behavior is acquired via the interaction with environments. They are totally different from cognitive theories because they deal with physical and measurable behavior rather than with internal mental processes. Such theories seek to understand how to enhance or belittle certain behavior by means of rewards and punishments, and this contributes to forming individuals' behavior in the educational contexts (Sarhan & Khawaldah, 2020).

5.1. Definition of Behavioral Theories of Learning

Behavioral theories of learning are defined as a set of concepts and thoughts that are used to interpret how to acquire behavior via experiments. They focus on observable and measurable behavior instead of internal mental processes. In addition, they show that learning takes place when certain behavior is closely related to particular consequences in an environment.

5.2. The Basic Principles of Behavioral Theories of Learning (Abdel Rahman, 2021)

- The Classic Criterion: this concept is considered one of the most essential principles of behavioral learning. Pavlov shows how a particular response is tied with certain stimulation. For instance, ringing a bell may lead to a certain dog's response (dogs are trained in relation to see food).
- The Procedural Criterion: developed by Skinner, this concept refers to how individuals can learn by means of the consequences that are the product of their behavior. Desired behavior can be rewarded, whereas undesired one can be punished. For example, when doing homework, a student can be rewarded and this, in turn, may reinforce that he/she will do it later on.
- Enhancement and Punishment

Enhancement (positive or negative) represents the way in which desired behavior can be reinforced, while punishments are those procedures which aim to min-

imize undesired behavior. These concepts are so important to understand how to constitute behavior in educational environments.

5.3. Applications of Behavioral Theories of Learning (Barbar, 2024)

- Class Management: Behavioral theories of learning can be used to manage classrooms by means of applying enhancement styles whereby it is possible to adopt the system of rewards to activate students' participation in classrooms.
- Behavior Modification: These principles are used in the programs of behavior modification in an attempt to improve students' behavior. When targeted behavior is determined and then enhancement strategies are applied, teachers can modify students' behavior in classrooms.

5.4. Online Behavior Theory of Learning

In the digital age of learning, the principles of behavior learning can be applied by means of online learning platforms which make use systems of rewards to promote students in the field of interaction and participation. Such systems provide simultaneous comments and this would help students enhance positive learning behavior (Harasim & Atiwway, 2020).

On the researcher's part, behavioral theories of learning are viewed as active tools to improve educational process. Teachers and headmasters have to understand such theories and then apply their principles to classrooms in order to reinforce positive behavior and to achieve much better results. Adopting strategies of enhancement and modifying behavior can possibly improve learning environments and increase educational activities. Moreover, behavior learning is not only a mere theory, but it is also a practical framework which contributes to constructing effective learning environments so as to help students meet their own urgent requirements.

6. The Relationship between Learning Theories and Leadership and Administration Proficiency

Learning theories and leadership and administration proficiency share a common ground to improve educational performance in institutions. Understanding how individuals learn and interact with knowledge can greatly affect the styles of leadership and administration. Applying the principles of learning theories, educationalists are able to develop active strategies in order to reinforce learning environments and stimulate academic performance. The influence of the learning theories on the styles of leadership and administration appears as follows (Boukhtala, 2022):

1) Guidance of Teaching Strategies

Cognitive and behavioral theories of learning help educationalists design educational strategies in harmony with different learning styles. For instance, understating how students process information, headmasters can guide teachers to make

use teaching styles chiefly based on activated learning, and this may increase students' interaction.

2) Enhancement of Learning Environment

Learning theories reinforces leaders' ability to create supportive educational environments whereby headmasters can develop systems of rewards to promote positive behavior and at the same time minimize undesired one. Such environments activate the spirit of cooperation among teachers and students and as a result improve the educational consequences.

3) Teachers' Improvement

Learning theories are active means when used to improve teachers' performance. They also enable headmasters to help teachers understand how to employ advanced learning strategies like problems-based learning. This training enriches teachers' activity and increases their ability to offer innovative learning contents.

4) Management of Change

Learning theories help leaders manage changes inside educational institutions. Changing curricula or teaching strategies enables leaders to make use of learning principles in an attempt to understand how teachers respond to such changes. When providing appropriate support and guidance, leaders can facilitate the whole process and ensure that all can comprehend the new changes.

5) Guidance of Educational Goals

Learning theories enhance leaders to direct educational goals effectively. Understanding how students learn, leaders can determine the goals that cope with their needs and this may contribute to improving the academic performance. It is also possible to use learning-based data to evaluate the effectiveness of learning programs and to determine the fields of improvement.

The researcher is of the opinion that the relationship between learning theories and leadership and administration proficiency reveals the significance of applying such theories to learning contexts. Leaders must benefit from understanding how individuals learn to develop the styles of leadership and to manage learning.

7. Challenges and Opportunities of Learning Theories Employment

Learning theories are effective means when used to improve educational operations and to enhance leadership and administration proficiency in schools. However, school headmasters face various challenges when they attempt to apply such theories. On a different footing, these theories furnish great opportunities to reinforce academic performance and create positive learning environments. The challenges are the following (Bousalmi & Debba, 2020):

1) Shortage of Training and Resources

Many school headmasters lack sufficient training when applying learning theories. Human and material resources may be insufficient to adopt new strategies and this may restrict headmasters' ability to execute active training programs.

2) Change Resistance

Headmasters may encounter some teachers' and employees' resistance when there are new changes in relation to the styles of teaching or administration. Such resistance is resulted from fear of failure or remaining in the same atmosphere.

3) Variations of Students' Needs

Students are different in their understanding and educational needs from each other so that it is notoriously difficult to adopt a single strategy in harmony of all of the students' requirements. Learning theories entail some sort of flexibility when being applied and this may make a challenge in relation to large classrooms.

4) Lack of Administrative Support

Lack of administrative support or the local community may stand a stumbling rock in front of the application learning theories. When headmasters have no any support, they may hesitate to step fearlessly towards changes.

5) Techniques of Variable Learning

Under the influence of the rapid IT development, teachers and school headmasters must cope with these changes and this may make a challenge of how IT is blended with learning strategies.

On the other hand, there are a lot of opportunities, they are as follows (Otaibi, 2025):

1) Development of Leadership Skills

Applications of learning theories may contribute to reinforcing headmasters' leadership skills when permanent education and occupational development are highly intensified. The headmasters can best improve their styles of leadership and their management of teams.

2) Cooperation among Teachers

Learning theories provide so many opportunities to build up the culture of teacher cooperation. Discussions on how to apply such theories may lead to share knowledge and experiences and this, in turn, would support the quality of education.

3) Improving Students' Learning Experience:

When learning theories are applied effectively, the students' learning experience can be enhanced, leading to increased academic achievement and higher satisfaction levels among students and parents.

4) Investing in Technology:

Modern technology allows for the application of learning theories in new and effective ways. Through the use of educational platforms and applications, interactive educational content tailored to students' needs can be provided.

5) Achieving Positive Outcomes at the Societal Level:

Successful application of learning theories can improve overall student performance, which may enhance the school's reputation and increase support from the local community.

8. Study Methodology and Field Procedures

8.1. Research Methodology

The researcher employed the Descriptive-Analytical Method, which suits the na-

ture of the research. It is a widely used method in the humanities that describes the studied phenomenon after collecting sufficient information, providing both quantitative and qualitative descriptions.

8.2. Research Population and Final Sample

1) Research Population: The original population consisted of middle school principals in the State of Kuwait, totaling (296) principals.

2) Research Sample: The sample was selected randomly and consisted of (169) middle school principals. Below is the description of the research sample according to the primary variables:

8.2.1. Distribution of Sample Members by Gender

Table 1 shows a relative balance in gender representation, with males constituting 59.3% and females 40.7%.

Table 1. Distribution of sample members by gender.

Gender	Count	Percentage
Male	100	59.3%
Female	69	40.7%
Total	**169**	**100%**

8.2.2. Distribution of Sample Members by Educational Qualification

Table 2 indicates that the majority of participants hold a PhD degree.

Table 2. Distribution of sample members by educational qualification.

Qualification	Count	Percentage
PhD	80	47.3%
Master's	65	38.5%
Bachelor's	24	14.2%
Total	**169**	**100%**

8.2.3. Distribution of Sample Members by Years of Experience (Table 3)

Table 3. Distribution of sample members by years of experience.

Years of Experience	Count	Percentage
Less than 5 years	30	17.7%
5 to 10 years	50	29.6%
11 to 15 years	40	23.6%
More than 16 years	49	29.1%
Total	**169**	**100%**

8.3. Research Instrument Design Procedures

The researcher followed these steps:

1) Utilizing educational literature and previous studies to design the research instrument.

2) Determining the questionnaire format: The initial version consisted of two sections:

- **Section One:** Instructions for respondents on how to answer the items.
- **Section Two:** Questionnaire items.

3) Validity and Reliability:

- **Content Validity (Juries):** The initial questionnaire was presented to a group of expert referees. Based on their feedback, necessary modifications were made (deleting/modifying phrases, linguistic correction). The initial version then consisted of (30) items.
- **Pilot Study:** Applied to a sample of (30) middle school principals (outside the original sample). It was administered twice (2025-10-01 and 2025-10-15) to ensure clarity and verify psychometric properties.
- **Construct Validity and Reliability:**
  - **Test-Retest Reliability:** The Pearson correlation coefficient reached (**0.92**) after a two-week interval.
  - **Cronbach's Alpha:** The reliability coefficient was (**0.93**).

9. Study Results and Analysis

9.1. Results of the First Question

What is the impact of employing cognitive and behavioral learning theories on improving the leadership and administrative competence of middle school principals in Kuwait?

The results indicate a strong positive impact. Principals who apply these principles demonstrate better capabilities in planning, motivation, decision-making, and team management (Table 4).

Table 4. Correlation coefficient between the two axes.

Variables	Correlation Coefficient (r)	Significance Level (p)
Learning Theories × Administrative Competence	0.784	< 0.001

9.2. Results of the Second Question:

What is the relationship between implementing cognitive and behavioral learning strategies and students' academic achievement?

The independent variable (Learning Theories) explains 61.5% of the variance in academic achievement (Table 5).

Table 5. Linear regression results.

Independent Variable	Coefficient (B)	t-value	Significance	R2
Learning Theories	0.773	16.347	<0.001	0.615

9.3. Results of the Third Question

How do personal variables affect the effectiveness of applying learning theories?

Statistically significant differences were found in favor of PhD holders. Variables like age and years of experience showed no significant differences (Table 6).

Table 6. ANOVA results for educational qualification.

Qualification	Count	Axis 1 Mean	Axis 2 Mean	Significance
PhD	72	4.382	4.521	—
Master's	60	4.539	4.511	—
Bachelor's	37	4.130	4.139	$p < 0.001 (F = 15.876)$

9.4. Results of the Fourth Question (Challenges)

1) Lack of applied training programs on modern learning theories.
2) Time constraints and heavy daily administrative burdens.
3) Weak institutional support for innovation.
4) Teacher resistance to change.

10. Conclusion and Recommendations

10.1. Conclusion

1) A strong positive impact of cognitive and behavioral learning theories on leadership competence.
2) High reliability of the study tool (Cronbach's Alpha > 0.86).
3) Learning theories explain over 61% of the variance in student achievement.
4) PhD holders are more effective in applying these theories.
5) Years of experience alone do not guarantee effectiveness without academic qualification.
6) Identified challenges include lack of training, time, and resources.

10.2. Recommendations

1) Include applied courses on learning theories in principal preparation programs.
2) Develop continuous field-based training programs.
3) Reduce unnecessary administrative burdens.
4) Provide institutional and financial support for schools implementing these theories.

5) Revise evaluation mechanisms to include "Effective Learning Activation" as a metric.

6) Encourage Professional Learning Communities (PLCs).

7) Integrate educational technology for motivation and feedback.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

Abdel Rahman, E. (2021). Behavioral Learning Theories and School Learning: First Grade Primary Textbook as a Model. *Aleph Journal of Language, Media, and Society, 8,* 161-184. http://search.mandumah.com/Record/1424845

Abu Saada, W., Dyab, M., & Banna, E. (2022). Professional Practices of Adult Educators in Light of Modern Learning Theories. *Journal of the Faculty of Education, 33,* 157-186. http://search.mandumah.com/Record/1353257

Amer, R., & Edward, M. (2024). Using Learning Theory Techniques to Enhance Linguistic Competence in a Sample of Individuals with Asperger's Disorder. *Journal of Advanced Sciences for Mental Health and Special Education*, Vol. 3, Special Issue, 260-291. http://search.mandumah.com/Record/1532845

Attab, N., & Haddad, S. (2022). Instructional Practices in Light of Teaching and Learning Theory Principles among Science and Computer Teachers at the Basic Education Stage in Al-Dhihar District, Ibb Governorate. *Journal of Arts for Psychological and Educational Studies, 15,* 187-222. http://search.mandumah.com/Record/1311977

Awjan, F. (2024). Learning Theories: Concept, Evaluation, and Their Applications in Enhancing Science Learning. *Journal of Educational and Qualitative Research, 26,* 216-251. http://search.mandumah.com/Record/1514606

Barbar, I. (2024). Learning Theories and Competency-Based Approaches in Algerian Schools. *Journal of Didactics, 14,* 693-710. http://search.mandumah.com/Record/1484196

Boukhtala, M. (2022). Learning: From Constructivist Theory to the Competency-Based Approach. *Journal of Human and Social Studies, 11,* 605-618. http://search.mandumah.com/Record/1272952

Bousalmi, A., & Debba, T. (2020). The Origins of Learning Theories in Arabic Heritage. *Journal of Human Sciences, 7,* 726-737. http://search.mandumah.com/Record/1063663

Farhat, F. (2022). Teaching Strategies and Their Role in Modifying Instruction Patterns Within Educational Institutions. *Jisr Al-Ma'rifa (Bridges of Knowledge) Journal, 8,* 429-440. http://search.mandumah.com/Record/1323595

Harasim, L., & Atwi, S. (2020). Learning Theories and Their Applications in E-Learning. *Journal of Educational Sciences, 32,* 415-421. http://search.mandumah.com/Record/1051448

Jamaan, M., & Barri, Q. (2020). *The Reality of Instructional Practices for Primary Stage Teachers in Jordan in Light of Brain-Based Learning Theories*. Unpublished Master's Thesis, Alal-Bayt University. http://search.mandumah.com/Record/1172114

Otaibi, M. (2025). The Teacher's Role in Developing Environmental Risk Awareness among Primary Stage Students in Light of Cognitive Learning Theory. *Journal of Curriculum and Teaching Methods, 4,* 41-55. https://search.mandumah.com/Record/1562877

Sarhan, W., & Khawaldeh, S. (2020). *The Effect of the Metacognitive Learning Cycle Strategy on Acquiring Scientific Concepts According to the Trend toward Science among Sixth Grade Female Students.* Unpublished Master's Thesis, Alal-Bayt University. http://search.mandumah.com/Record/1172395