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Proposed Virtual Class-Based Programme in the Development of Learning Skills for Students with Special Needs in Public Schools

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Abstract

The study aims to identify a program based on virtual classes to develop learning skills for students with special needs in public schools. The researcher used the descriptive-analytical approach and the semi-experimental approach. The sample of the study was formed from (32) students from the study community, and the two study tools were applied before and after to the study sample and after the researcher conducted statistical treatments. The results showed statistically significant differences in the cognitive aspect of teaching skills between the average grades of tribal application and the average grades of remote application of the attainment test due to the use of virtual classes in favor of the small application, and then results showed statistically significant differences in the skill performance aspect of teaching skills between the average grades of tribal application and the average grades of the remote application of the observation card due to the use of virtual classes in favor of the small application.

1. Introduction

The process of vocational preparation for teaching focuses on two complementary aspects: the theoretical aspect of theoretical studies in the sciences of education and psychology, and the practical aspect of practical education, which puts the student-teacher in direct confrontation with reality and puts his abilities and skills on the test of experience, practical education is a real opportunity for teachers and teachers to experience the educational process, And train them in various teaching skills, which they need to improve their performance (Attab, 2004).

Training is a planned activity aimed at providing individuals with a range of information and skills that increase their performance rates and is also a key and ongoing activity in terms of frequency throughout an individual's career on multiple occasions, not just a once-in-a-lifetime event that goes beyond it quickly, but an inherent activity for the development of individuals (Abdul Baki, 2001).

Efficiency and efficiency in performance and production can be achieved by training, which is used as a tool for development; training plays a crucial role in the growth of culture and civilization in general, and the importance of this is highlighted, in that training is the basis of all learning, development, and development of the human element, thus advancing and building society. Training is also an essential factor that helps administrative creativity and outstanding functionality, especially since organizations, with their various activities, face multiple changes and developments in light of the growing trends towards globalization (Shawaf, 2000).

The teacher must therefore be prepared and trained so that they acquire the professional competencies necessary to deal with technology and educational innovations, as the new concept of teacher competence enables the use of educational devices and materials, the production of various educational materials and software, and the continuous follow-up of innovations in education technology.

The development of curricula and educational activities has led to the development of the roles of teachers and learners, the refinement of the skills of learners, and their ability to face different situations in everyday life quickly and efficiently (Richards & Rodgers, 2001).

Due to the positive results achieved by the use of networks in supporting and raising the efficiency of the teaching process at the global level, the applications of cross-network education have multiplied significantly, the most important of which are virtual classes and the reliance on virtual classroom systems has begun, after achieving good results at the global level, and the emergence of its positive impact in supporting the education system and raising its efficiency, where it has a set of essential characteristics identified in the following: The convenience and flexibility of scheduling school times, immediate access to the latest modifications to the program, achieving the principle of continuing education, low costs and saving time for non-mobility, and providing all means of interaction between the student and the teacher (Zainaldin, 2007).

Al-Gharibi (2009) states that there are currently many virtual classes with approximately 200 software packages, including proprietary commercial software or open-source software. 2005).

In order to be able to perform the central and essential tasks assigned to the teacher, the teacher must have a number of teaching skills that qualify him to complete his role correctly.

Accordingly, the researcher will conduct the current study to investigate the effectiveness of a proposed virtual classroom-based program in developing learning skills among students with special needs in public schools.

2. Theoretical Framework

2.1 What Are the Default Chapters?

With technological, information, and communication advances, the teaching profession has been dramatically affected in terms of jobs, variables, specific procedures for teacher roles and complexities, and responsibilities towards the learner, society, and knowledge (Fadl, 2006; Reynald, 2003).

The use of the Global Information Network in education has affected the way teachers and learner performs and his achievements in the classroom, and the use of multiple systems in the Global Information Network will change the way technology affects life and work, and has emerged internationally to deal with the Global Information Network with a variety of terms and philosophies, including distance education, E-School and-University. Virtual learning Environment, Virtual Univerities, eLearning, virtual classrooms (Blessed, 2004).

Teaching and learning over the Internet help promote, support, quality, and efficiency of teaching, strengthen and revitalize the learning environment, not replace it, and whether online learning is used as a means of distance learning or to enhance the efficiency and effectiveness of traditional learning methods, it helps to overcome conventional obstacles in conventional classrooms and learning methods, i.e., they are not a substitute for formal learning. Online learning and traditional education can be used to support each other (Rizk, 2009; Teresa & Radice, 2004; Felix, 2001).

Virtual classes include different advanced and intelligent techniques such as direct communication (by text, voice, voice, and text together)and direct participation of systems, programs, and applications (between teacher and students or among students), and allow interaction with the teacher or organizer of the educational seminar by voice live, which distinguishes it from the traditional classes (Al-Qarni, 2006).

There are other labels for virtual chapters; These are similar to traditional classes in terms of teacher and student presence, but on the World Information Network, where they adhere to a time or place and through which virtual learning environments are developed so that students can gather through networks to participate in collaborative learning situations, so that the student is in the learning center, and will learn for understanding and understanding. It can be defined as “one of the primary means of delivering lectures on the Internet, smart classrooms in which the essential elements needed by both the teacher and the learner, one of the primaries means of the interactive open distance education system, is an advanced technique that reflects the future in the world of training and education in general (Rizk, 2009).

Samour (2011) defined virtual classes as “a system that allows for live interaction between teachers and female students over the Internet, combining the characteristics of traditional classes, electronics classes, and this system is flexible and easy, in terms of determining the right times for teachers and students, so that students can communicate simultaneously through electronic blackboards and written and audio interviews, in order to optimize understanding and understanding.”

2.2 Features and Pros of Virtual Chapters

Virtual chapters have many advantages, including (Lithuanian, 2014; Zainaldin, 2007):

Ease of use

1) Education at any time, where the student can learn at any time and anywhere.
2) Individual and collective education.
3) Continuous interaction, continuous response, and continuous follow-up as a whole.
4) The significant reduction in cost.
5) Virtual classroom management does not need high technical skills.
6) Cover a large number of students in different geographical areas and at other times.
7) Encourage the student to participate without fear or anxiety.
8) We are exempting the teacher from heavy burdens by reviewing, correcting, monitoring grades, and organizing.
9) Support interactive education.
10) The possibility of recording lessons to re-watch them.
11) A large volume of information through digital libraries.
12) It is generating the ability to search in students.The basic properties of virtual chapters.

Virtual classes offer several possibilities for educational process elements, including (Ajrami, 2013):

1) Direct voice-only communication, or voice and image.
2) Written communication.
3) Electronic blackboard (interactive).
4) Direct participation of systems, programs, and applications between the teacher and students or among students.
5) Send and share files either directly or indirectly between the teacher and his students.
6) Follow-up of the teacher for each student or for the total students at the same time. The use of
7) Educational film screening programs.
8) The ability to ask and vote on written questions.
9) The ability to direct follow-up orders to what the teacher offers to students.
10) The ability to send a connection to any browser for one student or for all students.
11) The ability to allow any student to enter or be removed from class.
12) The property of allowing speech or not.
13) We are printing allowing.
14) The feature of recording the lecture (audio and written).

2.3 Teaching Skills

Zahrani (2010: 9) defined teaching skills as “the set of teaching behavioral processes that the teacher shows in his educational activity inside and outside the classroom to achieve the objectives of the subject he teaches.”

Al-Ajami (2013: 327) defined it as"a set of teaching actions and behaviors that teachers are expected to be able to teach students during the period of practical education, to help them carry out their teaching tasks easily and mastery in the stages of planning, implementation, and evaluation to achieve the objectives of teaching."

Tantawi (2009: 22) defined teaching skills as "the range of effective teaching behaviors that the teacher demonstrates in his educational activity with the aim of achieving certain goals, and these behaviors are manifested through the teacher's teaching practices in the form of emotional, dynamic or verbal responses characterized by elements of accuracy, speed of performance and adaptation to the conditions of the educational situation."

Many studies have demonstrated the effectiveness of the proposed training programs to develop teaching skills among students with special needs in public schools, students in the last year of university and qualified to become teachers within their specialty, the impact of these programs using virtual classes on students and their educational achievement, the development of teaching skills and the acquisition of They have academic skills, learning, electronic, design, and other skills, including the study (Al Mubarak, 2004; Abdul Qadir, 2008; Ashour, 2009; Abdul Ati and Abdul Ati, 2009; Rizk, 2009; Al-Jawhari, 2010; Al-Ajrami, 2013; Zahrani, 2010; Samour, 2011; Richards, 2005).

2.4 The Problem of the Study and Its Questions

The problem of studying lies in the researcher's observation of their work at the university to a lack of focus on teaching skills, whether traditional or in the virtual classes of students in the Faculty of Basic Education in the General Authority for Applied Education and Training in Kuwait, in particular students of the final stage of the bachelor's degree (fourth year), the researcher was briefed On many studies whose results have shown apparent effectiveness and impact on the use of virtual classes in the educational process such as study (Al-Ajrami, 2013; Rizk, 2009; Ashour, 2009; Al-Qarni, 2006; Zahrani, 2010; Richards, 2005), the researcher will conduct this study, and the study will try to answer the following questions:

1. What teaching skills need to be developed among students with special needs in public schools?
2. What is the proposed vision of a virtual classroom training program in the development of learning skills for students with special needs in public schools?

2.5 Study Hypotheses

There are no statistically significant differences at the level of significance≥(α0.05) between the average grades of students teachers in the tribal and remote application on the cognitive achievement test of teaching skills due to the use of the proposed program based on virtual classes, and there are no statistically significant differences at the indicative level (α≥0.05) between the average grades of students in the tribal and remote application on the teaching skills note card due to the use of the proposed program based on virtual classes.

2.6 Study Objectives

1) Learn about the impact of the proposed virtual separation program on the development of the cognitive aspect of teaching skills among students with special needs in public schools.

2) To show the impact of the proposed virtual class-based program on the development of the skilled aspect of teaching skills among students with special needs in public schools?

2.7 The Importance of the Study

The importance of this study is:

1) Explore the impact of the proposed virtual separation program on the development of learning skills among students with special needs in public schools as these students will move from the theoretical stage and study to the experimental field stage, especially as teachers.

2) The current study may be a new addition to scientific research and Arab studies related to the impact of virtual classes on the development of teaching skills in people with special needs in public schools.

2.8 Definition of Study Terms

- The proposed program: "A range of learning experiences and activities designed in the form of a study system designed in a coherent and structured manner in the light of logical and psychological organization, so that this program sets out the objectives, content, activities, educational means, teaching methods, and evaluation" (Abu Umra, 2010: 9).

- VirtualClassrooms: "Classes that resemble traditional classes in terms of teacher and student presence, but on the Global Information Network where they do not adhere to a time or place and through which virtual learning environments are developed so that students can gather through networks to participate in collaborative learning situations, so that the student is in the learning center, and will learn for understanding and absorption" (Rizk, 2008: 220).

2.9 Previous Studies

Al Ali's study (8,200) aimed at identifying the impact of teaching using virtual classrooms across the Global Information Network on the achievement of university students and using them in the teaching and learning processes. The preference for the results and collection of the group studied in the virtual class way from the traditional method and found that virtual classes significantly reduce administrative burdens, making them an effective tool in education, especially in solving contemporary educational problems.

Richard's 2008 study aimed to identify the impact of virtual classes on teaching and learning, with members of the sample of 121 students considering that obtaining information and doing the learning process through virtual classes is one of the best student activities, and they also

reported that virtual classes were a tool to provoke students towards learning.

Dahlan's study (2012) aimed at investigating the effectiveness of a moodle program to give students of primary education at Al Azhar University the skills of daily planning of lessons and their attitudes towards it. The researcher developed a tool to measure student trends. The sample of the study was made up of 60 students divided into two groups (experimental and officer). The results showed no statistically significant differences between the average grades of the experimental group and the officer in the tribal test, the existence of statistically significant differences between the middle degrees of the experimental group and the officer in the distance test for the experimental group, and the existence of statistically significant differences between the average grades of student trends attributable to the Moodle-enhanced program.

Al-Ajrami Study (2013) 2013defra, recognizing the effectiveness of a proposed program based on virtual classes illuminate in the development of some of the practical teaching skills of teachers at The Open University of Jerusalem and their attitudes towards them, and the sample of the study consisted of 24 students from the study community, and the researcher used two approaches: the analytical descriptive curriculum, in determiningthe skills of effectiveteaching, and the quasi-experimental method quasi-experimental To demonstrate the effectiveness of the independentvariable (virtualclasses) on the dependent variable (effectiveteaching skills),the following wasthe research in the achievement test, the note card of practical teaching skills where it was confirmed to betrue,as well as the method of stability ofobservers was used to verify its stability, where my tool was applied The results showed statistically significant differences in the cognitive aspect of practical teaching skills between the average tribal application scores and the average grades of remote application of the attainment test due to the use of virtualclasses in favor of small application, as well as the results showed statistically significant differences in the skillful performance aspect of practical teaching skills between average tribal application grades and average distance application grades. The notecard is also attributable to the use of default chapters for the benefit of the remote application.

2.10 Comment on Studies

The study was distinguished from previous studies as a new addition to Arab studies, and according to the researcher's knowledge, maybe one of the first or few studies of its kind in Kuwait regarding the subject of the study, which sought to investigate the impact of the proposed program based on the virtual separation in the development of learning skills among students with special needs in public schools Previous studies have been used in terms of the sample, methodology and statistical methods, in addition to the use of the preparation of the current study tool, and the findings of the studies.

3. Method and Procedures

3.1 Curriculum

The researcher relied on the experimental curriculum because it is most appropriate for research in detecting the impact of the independent variable (the proposed program based on

virtual classes) on the dependent variable (teaching skills).

3.2 Experimental Design of the Study

The researcher used an experimental design based on a single practical set, using remote tribal measurement on the study sample.

3.3 Design of Study Tools

First: List of teaching skills

To determine the practical teaching skills of the proposed training program, in order to answer the first question of the study, the researcher reviewed the literature teaching methods, as well as the results of previous studies prepared in the field of teaching methods, such as the study of Ajrami (2013), the study of al-Jawhari (2010) and the study of Zahrani (2010). The researcher made a note to students through his work at the university while applying teaching skills.

Second: Educational testing of teaching skills

An educational test was prepared in the cognitive aspect associated with teaching skills, which is included in the skills list, according to a number of steps such as (determining the purpose of the test.

Calculating the ease and difficulty factors of test items

The ease of any test item is measured by calculating the mathematical average of correct or error answers according to the following equation: ease coefficient = the number of correct answers÷ (valid number + error number), and after calculating ease transactions for test items, I found that they range from (0.17-0.84), which fall within the acceptable range. The discrimination factor was also calculated for test items and was at least (0.2) and no more than (0.8) in the test items; it is noted from this ratio that test difficulty factors also fall within the acceptable range.

Quantifying students' test performance

Students' levels on the test were estimated, based on one degree for the correct answer, and nothing to answer the error, so the total final score of the attainment test was (35).

Third: Teaching skills note card

A note card consisting of (52) paragraphs is prepared, depending on the following steps:

Determining the purpose of the notecard: The notecard aims to use it as a consistent and straightforward measure as possible in evaluating the skills of students at the Faculty of Basic Education in the implementation of teaching skills.

Drafting of note card paragraphs: The drafting of the card paragraphs was based mainly on the list of previously defined teaching skills, and studies were reviewed that noted students' skills in teaching skills, such as Al-Ajrami Study (2013), Dahlan Study (2012) and Al-Matrifi Study (2010), The Study of Zahrani (2010) and The Study of Al-Jawhari (2010), the

paragraphs of the card were initially included on (63) sections, divided into eight dimensions, and was taken into account when drafting paragraphs to be Procedural, easy to observe, and each paragraph contains only one behavior, in addition to its logical sequence.

Quantification of students' performance on the card: The researcher used quantitative assessment to estimate the levels of students in the version of each skill in the notecard by suggesting four levels of grade appreciation: (0, 1, 2, 3), and gradient (0) indicates that the student did not perform the skill, while the graduation (1) indicates that the student performed the skill poorly, while the graduation (2) indicates that the student performed the skill at an average degree, While graduation (3) indicates that the student performed the skill highly, the previous levels of appreciation were relied upon because the researcher believed in the nature of the skills to be observed, and for the approval of the arbitrators on previous estimates in the step of adjusting the card, and for the use of some studies similar estimates, such as Al-Ajrami Study (2013), Zahrani (2010) and Al-Jawhari Study (2010).

Drafting notecard instructions: Since the process of observing teaching skills will be carried out in cooperation with another colleague, it was necessary to develop some appropriate education so that the card could be used accurately and adequately, and the instructions included two main aspects: the data of the teacher to be evaluated, instructions for the observer using the card, which indicates how to record the quantification of the level of performance, and the purpose of the card.

Validity of the notecard: The notecard was presented in its initial form to a group of arbitrators specialized in teaching methods and education technology in order to ensure the validity of the procedural wording of the card items, the possibility of observing the skill, the sequence of its objects, clarity, and order, and the extent The suitability of the card for the purpose for which it was designed, the integrity of the quantification of students' performance, and the addition or modification of what they see fit;

Stability of the notecard: To calculate the stability factor of the card, applied by observers, to a sample of(18)students from another division under the supervision of another supervisor, and the stability of the observers was calculated according to the equation cooper (agent and mufti, 2007, 328):

$$\text{Observer stability} = \frac{\text{Number of times agreed}}{\text{Number of times agreement + number of non-agreement times}} \text{ X } 100$$

By applying the previous equation, stability coefficients are as follows:

$$\text{Observer stability} = \frac{232}{232 + 38} \text{ X } 100 = 86.0$$

The calculated stability rate was 86.0, which is high by which the note card can be checked.

3.3 Procedures for Implementing the Study Experiment

3.3.1 Preparing the proposed Programme:

The researcher converted the list of skills (52) skills to a list of training needs and then distributed them to the research sample to identify the most skills of the inventory they need, and the researcher found that their most training needs were for the following skills: (the skill of planning the lesson, the skill of submitting and preparing for the study, the talent of explaining and executing, and the skill of drafting and asking questions), and accordingly the researcher divided The objectives of the proposed Programme for the following purposes:

1. The student plans to teach correctly.
2. The student should present the lesson by creating an appropriate preparation for the new study.
3. The student should explain and carry out the lesson with the ability.
4. The student should formulate the classroom questions and ask them in a proper manner.

In this step, the researcher initiated the actual production of the proposed class-based virtual program to develop teaching skills by printing the program texts, collecting the required educational images and videos, as well as preparing a set of presentations (PowerPoint files) related to learning topics.

The researcher then coordinated with the Computer and Programming Center at the university on a link to Moodle virtual class program in order to adopt this virtual chapter by the university administration.

The researcher has prepared a guide to help the learner on how to deal with Moodle virtual segregation, leading to the best possible educational goals.

3.3.2 Tribal Application of Study Tools

The researcher applied the study tools (collection test - observation cards)tribally to the sample of the study (experimental group) in order to measure the level of knowledge and the research available to them about the content of the proposed program understudy before it was introduced.

3.3.3 Applying the Proposed Program to the Sample of the Study:

The researcher held a preliminary session through which the mechanism of entry for the virtual semester was explained and provided students with WordPress files to define the default chapter through the learning guide for the program, which the researcher prepared in an earlier step.

The researcher applied the proposed program based on virtual classes in its final form to fourth-year students for two weeks.

3.3.4 The Remote Application of Study Tools

After the study sample was taught in the proposed program based on virtual classes, the study tools were applied after (collection test, observation card), and after monitoring the data obtained from the application of the study tools, the appropriate statistical treatment was performed, and then the questions of the study were answered.

View and discuss the results of the study

The first question of the study, which states, "What teaching skills need to be developed among students with special needs in public schools?"

To answer the first question, the researcher derived a list of teaching skills that needed to be developed among students with special needs in public schools, and the list consisted of (52) skills, spread over eight dimensions, and for more details on the procedures followed in the preparation of this list see(first: design of research tools), in study procedures.

To answer the second question of the study, which states, "What is the proposed vision of the virtual classroom training program in the development of learning skills among students with special needs in public schools?"

The researcher prepared the proposed program with the aim of developing teaching skills based on virtual classes among students with special needs in public schools, and details of the procedures for designing the proposed program were determined by the guidelines for implementing the study experiment.

To answer the third question, the results were as follows:

Table 3. Results of the (t) test to test the significance of differences in tribal/remote testing and the value and size of the effect η^2

audition	Number	Arithmetic average	Standard deviation	Value "T"	The matter of the semantics	Level of significance	value η^2	Impact size
Tribal	24	15.72	3.48	30.6	0.00	function	0.97	big
Post	24	42.8	1.30					

* Table value (t) at freedom score (25) and indication level (0.01) = 2.78.

* (0.01) small effect, (0.06) average, (0.14) large. η^2

Table 3 shows that there are statistically significant differences at the 0.01 level between the

average student scores in the distance and η^2 tribal test in favor of the distance test, as well as the size of the "significant" effect. Active interaction in educational situations, given the multiple possibilities it provides for access to information, as well as the inclusion of a set of educational options that allow students to use what suits them, regular steps in learning skills, in terms of studying and reading skills through the virtual classroom-based program, noticing their performance by watching videos and flash inside the virtual classroom during sessions, then practical application and training of talent, then calendar and retraining. This has played an active role in enriching educational attitudes and raising the level of achievement of fourth-year students in the cognitive aspect.

The current finding is consistent with Richards' study (Richards, 2005), which found an impact on virtual classes in the teaching and learning processes, and the Study of Abdelkader (2008), which saw the effectiveness of a proposed electronic program using virtual classes in developing confidence in e-learning, interactive communication and student achievement in the course of teaching forensic sciences, and the study of Abdul Ati and Abdul Ati (2009) which found the effectiveness of a proposed training program in developing some e-content management skills using virtual classes among professional diploma students, and agreed with Dahlan's study (2009), which showed statistically significant differences between the average grades of the experimental group and the officer in the distance test for the pilot group, and the existence of statistically significant differences between the average student trends score attributable to the moodle-enhanced program. The result of the current study differed from the results of the Al Mubarak study (2004), which found that there were no statistically significant differences in the cognitive attainment of the course of the educational means at levels (understanding- remembering- application) between the control group and the experimental group due to the default chapter.

To answer the fourth question, to validate the hypothesis, a "T" test was used for two related samples, and table 4 shows the results of the analysis:

Table 4. Results of the T-test to test the significance of differences in the remote tribal application for the notecard and the value and size of the effect η^2

Notecards	Group	Average Arithmetic	Number	Standard deviation	Degrees Freedom	value to	Level of significance	value η^2	Impact size
Teaching planning skills	Previous	7.96	24	0.93	16	33.35	Function at 0.05	0.97	big
	Next	18.80	24	1.41					
Skills to prepare students for the new lesson	Previous	24.84	24	1.65	16	46.08	Function at 0.05	0.98	big
	Next	57.80	24	2.73					
Skills to explain and perform the lesson	Previous	7.00	24	0.00	16	30.18	Function at 0.05	0.97	big
	Next	19.20	24	2.02					
Classroom questioning skills	Previous	7.00	24	0.00	16	45.23	Function at 0.05	0.98	big
	Next	19.16	24	1.34					
Total degree	Previous	46.8	24	2.58	16	34.37	Function at 0.05	0.99	big
	Next	114.96	24	7.5					

* Table value (t) at freedom score (16) and indication level (0.01) = 2.78

* (0.01) small effect, (0.06) average, (0.14) large. η^2

It is clear from the previous table that there are statistically significant differences at the level

of significance (0.01) between the average grades in the tribal and remote application at each dimension of the observation card and the overall degree, in favor of the small application, and notes that the values of the Anita box are η^2 significant, whether in the total degree or at each dimension, which indicates that the virtual classes have a positive and significant impact in raising the level of the skill side of students in the fourth year, which is the final year, which Students beginto preparethemselves for working life,which can be due to the scientific and systemic steps taken in preparing the proposed Programme in terms of: identifying the target group, collecting information, materials and sources that help meet the needs of this group, drawing up a plan for the preparation of the program, and then designing it in the light of specific objectives, reviewing and revising it, judging it, and experimenting with the safety of the program, The fourth-year student is also given the opportunity to see whether they have succeeded or failed directly by providing them with instant feedback that enhances or modifys their responses.

The current finding is consistent with the Ashour Study (2009), which found that virtual classes were effective in acquiring 3D design skills among students of education technology, and Rizk Study (2009), which saw an impact of virtual classes on the beliefs of self-competence and teaching performance of pre-service science teachers. All of which confirmed that virtual courses were effective in training teachers and students compared to standard methods; this is a contribution to breaking the technical awe barrier experienced by teachers.

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