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Prateep POONWATANA\*, Raphiphat DUEANPHATSI\*\*,  
Kasemsan PANITCHAROEN\*\*\*, Kritsada SURUMPAI\*\*\*\*

## UNDERGRADUATE STUDENTS' PERSPECTIVE ON LEARNING AEROBIC DANCE

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### Nauka tańca aerobowego z perspektywy studentów studiów licencjackich

#### Streszczenie

Przeprowadzone badanie jakościowe analizowało doświadczenia i czynniki wpływające na umiejętności tańca aerobowego i kursy nauczania z perspektywy 31 studentów wychowania fizycznego. Dane zebrano poprzez obserwację, mapy koncepcyjne, incydenty krytyczne i wywiady. Dane analizowano indukcyjnie, wykorzystując metodę ciągłego porównywania i triangulację danych. Wyłoniono dwa główne tematy. Pierwszy temat to pozytywne doświadczenia, takie jak: (1) nauka nowych umiejętności, które mogą być przydatne w przyszłości oraz (2) angażowanie się w aktywności i naukę z przyjaciółmi. Negatywne doświadczenia obejmują poczucie presji, gdy wymagane jest przyjęcie pozycji lidera. Drugi temat to czynniki wspierające, takie jak: (1) pomoc kolegów z grupy, (2) wskazówki i informacje zwrotne od nauczyciela, (3) osobista motywacja i zaangażowanie. Czynniki utrudniające obejmują: (1) szybkie tempo nauczania i używanie specjalistycznej terminologii, którą studenci muszą zrozumieć, (2) brak gotowego sprzętu do nauki, (3) trudności i potrzebną pomoc w zrozumieniu rytmu muzyki, (4) długi okres oczekiwania podczas procesu uczenia się, (5) niekorzystne środowisko nauki, (6) niejasne metody oceny. Wniosek: Instruktorzy i rówieśnicy odgrywają kluczową rolę we wspieraniu nauki tańca aerobowego. Ponadto odpowied-

\* <https://orcid.org/0009-0001-2598-4558>; PhD; Lecturer in Physical Education Program Burapha University, Chonburi Province, Thailand; e-mail: prateep@go.buu.ac.th

\*\* <https://orcid.org/0009-0006-1354-2601>; Assistant Professor in the Faculty of Education, Burapha University, Chonburi Province, Thailand; e-mail: rapeepat@go.buu.ac.th

\*\*\* <https://orcid.org/0009-0000-1145-4954>; Assistant Professor in the Faculty of Education, Burapha University, Faculty of Education, Chonburi Province, Thailand; e-mail: kasemsunt@go.buu.ac.th

\*\*\*\* <https://orcid.org/0009-0000-7470-4172>; PhD; Lecturer in Physical Education Program, Burapha University, Chonburi Province, Thailand; e-mail: kritsada.su@go.buu.ac.th (corresponding author)

nie metody nauczania i procesy oceniania pomagają zwiększyć efektywność nauczania i uczenia się tańca aerobowego.

**Słowa kluczowe:** taniec aerobowy, doświadczenia w nauce, czynniki wpływające na naukę, studenci wychowania fizycznego.

## Abstract

This qualitative study explored the experiences and factors influencing aerobic dance skills, and teaching courses from the perspective of 31 Physical Education students. Data were collected through observation, concept maps, critical incidences, and interviews. Data were inductively analyzed using a constant comparison method and data triangulation. There were two main topics. The first topic includes positive experiences such as (1) learning new skills that can be beneficial in the future and (2) engaging in activities and learning with friends. Negative experiences include feeling pressured when required to assume a leadership position. The second topic encompasses supporting factors such as (1) help from classmates, (2) teacher guidance and feedback, (3) personal motivation and dedication. The hindering factors include (1) fast-paced teaching and use of specialized terminology needed to be understood by students, (2) lack of ready equipment for learning, (3) difficulty and assistance required in comprehending the rhythm of the music, (4) long waiting period during the learning process (5) unfavorable learning environment (6) unclear evaluation methods. Conclusion: Instructors and peers play a crucial role in supporting the learning of aerobic dance. Additionally, appropriate teaching methods and assessment procedures shall help enhance the effectiveness of teaching and learning aerobic dance.

**Keywords:** aerobic dance, learning experiences, factors influencing learning, Physical Education students.

## Introduction

Aerobic dance is a form of exercise that utilizes oxygen to consume calories. It combines movement or physical activity with dancing to the continuous rhythm of music. Its main goal is to foster overall strength and stamina within the body, such as the enhancement of cardiovascular stamina, muscle strength and endurance, and burning excess fat. Aerobic dance has gained popularity as a fitness activity for individuals of all ages and genders. It not only brings about pleasure and stress relief, but also improves physical health (Govindasamy et al., 2023., Chanida, 2011).

Aerobic dance improves the physical well-being of people who exercise. It is critical to follow fundamental principles such as intensity, duration, and frequency. Intensity refers to exercising at 60-80% of one's maximum heart rate throughout a workout. (Fatouros et al., 2005) define duration as exercising for at least 30 minutes per session, and frequency as exercising 4-5 times per week. Aerobic dance has been a popular kind of exercise for physical health lovers since antiquity. It offers a combination of enjoyment, stress alleviation, and physical health advantages. Before beginning aerobic dance or exercise, begin-

ners or persons with no prior experience should examine their readiness and physical limitations. To minimize any negative effects on the body or overall unfavorable effects, it is recommended to begin with moderate levels of exercise and gradually proceed to more strenuous levels.

However, despite the popularity of aerobic dance as a form of exercise, it is not frequently integrated within physical education classes. Most physical education classes focus on traditional sports activities such as football, volleyball, or basketball, which may require a broader spectrum of activities to avoid monotony. Integrating aerobic dance into physical education classes has the potential to instill a sense of diversity and exhilaration, thus rendering benefits for both students and instructors.

Therefore, the objective of the Physical Education Department at Burapha University, Thailand, is to produce graduates in the field of Physical Education who are actively involved in developing the advancement of their profession. This includes the promotion of alternative exercise activities in Physical Education, such as aerobic dance. To achieve this, the department offers a course titled "Aerobic Dance Skills and Teaching." This course aims to provide students with essential knowledge and skills in aerobic dance and teaching, enabling them to incorporate aerobic dance activities into their future teaching careers.

However, research on teaching aerobic dance in Physical Education classes is limited. Researchers specializing in educating Physical Education teachers and developing the profession have conducted studies on students' perceptions and educational achievements in the context of teaching aerobic dance. The findings of this research hold potential for improving the teaching of aerobic dance in Physical Education classes and providing an essential fundamental framework for the future development or implementation of aerobic dance activities across various student levels.

In conclusion, integrating aerobic dance into Physical Education classes and research on teaching and educational learning outcomes will contribute to the advancement of aerobic dance education in the Physical Education Department. This will also serve as valuable information for improving and implementing Physical Education classes for students at various levels in the future.

This will additionally provide valuable insights for enhancing and implementing Physical Education classes for students at various academic levels in the forthcoming years.

## **Research Objectives**

To explore the experiences with acquiring aerobic dance skills, and teaching courses, as perceived by Physical Education students.

To examine the factors influencing the aerobic dance skills and teaching courses from the perspective of Physical Education students.

## Research Questions

What experiences do Physical Education students have in learning aerobic dance skills and teaching?

What factors contribute to the support of learning aerobic dance skills and teaching according to Physical Education students?

What obstacles and challenges affect learning aerobic dance skills and teaching according to Physical Education students?

**Key informants** in this study were undergraduate students majoring in Physical Education at Burapha University. A total of 31 informants were selected through purposive sampling. The criteria for selection were as follows: 1) being a second-year undergraduate student in the Physical Education program who registered for the Aerobic dance Skills and Teaching course in the second semester of the academic year 2019, 2) willingly participating in the research as critical informants by signing a consent form, which stated that their participation would not have any negative consequences and that they could withdraw from the study at any time, even if the research had not yet concluded, 3) attending and actively participating in the teaching and learning activities, with an attendance rate of at least 80% throughout the semester (16-18 weeks). The criteria for excluding key informants were: 1) having a participation rate of less than 80% in the teaching and learning activities of the course and 2) expressing a desire to withdraw or being unable to continue as key informants. It was clear that withdrawing from the study would not negatively affect the informants. This research project was promoted, and the participants were recruited online and by distributing informational materials. Interested students were then scheduled for interviews to discuss the research details and receive the consent form. The informants were given time to review and consider the consent form, which emphasized protecting their rights and personal information. The consent form was later submitted to the research assistants. To maintain confidentiality, the names of critical informants were replaced with pseudonyms in data presentations. For example, "AM1" represented male informants, while "AW1" represented female informants. The research study was approved by the Human Ethics Committee of Burapha University, Thailand, with project code HU103/2565(C3) (A1) (IRB2-088/2566).

**Data collection** was conducted using qualitative research methods. After obtaining permission from the course instructor, data was collected online and face-to-face, depending on the preferences of the key informants. The methods

included: 1) moderate participation observation, involving research assistants observing the teaching and learning activities of the Aerobic dance Skills and Teaching course, focusing on the learning environment, teaching methods, and student participation, 2) concept mapping, where key informants created concept maps to represent their learning experiences and factors influencing their learning. These maps were analyzed with observations and lecture notes and later used in semi-structured interviews. 3) Critical incident technique, where key informants wrote or verbally described significant incidents related to their learning experiences, both successful and challenging. This data was collected during the last month of the semester, based on the convenience and preferences of the key informants, 4) semi-structured interviews were conducted towards the end of the semester using a combination of online and face-to-face methods. The interviews covered various topics related to learning experiences and factors that supported or hindered learning.

**Data analysis** involved transcribing and organizing the collected data using word processing software. Inductive content analysis using constant comparison was conducted, and it included four steps: scanning data for common categories, classifying common themes, placing data into relevant categories, and explaining the categories. This process helped identify themes and subthemes, which were then used to summarize the research findings. To ensure the credibility of the data, triangulation was used to cross-check data from different sources, including semi-structured interviews, observations, concept mapping, and critical incidents. (Salee, 2007)

## **Research Results**

### **Experiences with acquiring aerobic dance skills, and teaching courses, as perceived by Physical Education students**

#### **Positive Experiences**

Learning new skills that can be beneficial in the future. Students mentioned that learning aerobics was a new experience for them, and they found it was beneficial because they could utilize it when they started teaching in the future. AW2 mentioned, "The advantage of this course is that it can be used for teaching Physical Education or exercise. We can even become dancing instructors if we practice enough." AW13 explained, "This course is tiring but fun. I like this type of course because I enjoy dancing. The more I learn, the more I like it. Moreover, I can use it for teaching in the future." AW5 added, "I have never danced aerobics before. It is a new subject for me. However, I can learn to dance. It is suitable for someone like me who is not good at sports. It can be applied in future teach-

ing.” These findings suggest that learning aerobics is a positive experience for students as they can learn and apply new activities in the future. This aligned with Salee’s (2011) findings that students enjoyed and obtained benefit from learning new physical activities or sports.

Engaging in activities and learning with friends. Students have noted that participating in group aerobic dance activities provided them with positive experiences and learning possibilities. For example, AM12 stated, “I prefer learning as a group because we do activities with numerous friends, discuss perspectives, and have chats. It helps us get to know one another better and become closer.” This is consistent with what AW13 stated, “I believe this course is excellent because, as future teachers, we can apply what we learn to teach youngsters. I hope youngsters will love it as well.” Similarly, AW17 stated, “It is fantastic that we have the opportunity to learn something new and unfamiliar. Having friends who are more experienced at dancing helps me practice the right skills and gain knowledge of vocabulary. It’s helped me get closer to my buddies.” Finally, the benefits of studying aerobic dance include increased interaction with classmates and social learning. It is consistent with a study conducted by Puangnoi (2014), which discovered that learning to dance encourages physical activity while also assisting students in developing new friendships and social skills.

### **Negative Experiences**

Feeling pressure when required to assume a position of leadership. During talks about unpleasant experiences with aerobic dance, students expressed feelings of anxiety and pressure when performing in front of their peers and professors. For example, AM1 stated, “In my group, the majority of us don’t dance well. We don’t have much dance experience, and I struggle to recall the steps. My friends attempt to help, but it is not easy. When I had to lead the group’s dance, I was nervous and under a lot of pressure.” AM16 shared their experience, saying, “I remember feeling pushed during the dance exam. It was stressful since we had to lead the dance alone and the teacher asked us to come up with our own movements. Dancing alone and having to think about the choreography made me extremely stressed.” AW4 stated, “I feel pressurized in this subject because I have no foundation and do not comprehend the dancing techniques well enough. Then we must do the dance in front of the teacher and a buddy, one couple at a time. We must count the beats in our thoughts or pronounce them aloud, and if we do not count in time, our dance will not be coordinated.” In these circumstances, students’ feelings of pressure when leading the aerobic dance can be ascribed to their lack of confidence and self-esteem. Because this is their first-time learning and leading a dance, with practice and more experience, the pressure and anxiety may progressively diminish.

## **Factors influencing the aerobic dance skills, and teaching courses as seen by Physical Education students**

### **Supporting factors**

Help from one's classmates. In addition to having teachers who teach and provide guidance, some classmates helped each other and learned together. As AW11 mentioned, "I am in a group of all males, and there is one female friend. At first, I thought boys could not dance aerobic dance and would not be interested in this subject. But when we did it, our group was the first to do it well because my male friends were determined. They helped each other practice and dance together." AW14 said, "I am fortunate to have friends in the group who assist and encourage me in learning, in addition to what the teacher teaches. They tell me what the steps are called, how to dance, and how to count the beats. It greatly simplifies things for us." AM10 also provided information that "many of my friends have to go to sports competitions or miss classes due to COVID-19, so I have classmates who come to class and help each other, teaching and guiding each other. It helps our group go together." Having classmates to assist was an essential factor that affects learning. Having friends to assist would help facilitate learning, as mentioned by Raphiphat et al., (2017) in their research on learning water polo in high school students, having supportive and helpful classmates was a crucial element that favorably impacts students' learning. Having buddies to help would aid in learning.

Teacher guidance and feedback. Teachers helped and gave feedback to students. As AW11 described, "The teachers care about each of us. They do more than just assign us tasks and go away. We can talk to the teacher privately or during a class when we do not understand. The teachers always provide guidance. It feels good that the teacher does not abandon us to solve the problem on our own." Meanwhile, AM3 said, "The teacher will come and explain how to modify our motions, and if we don't understand or cannot dance, we can follow the teacher. It helps us a lot." AW9 explained this by saying, "The teacher is kind and personable. While giving instructions, the teacher does not just sit there passively. They will stop by to see if anything needs to be fixed or if we can handle it. It's fantastic." This point emphasized how giving constructive criticism to students was an essential component of teaching that gave them the best chance to learn. (Kasemsan & Raphiphat, 2022; Graham et al., 2013)

Personal motivation and dedication. Learning aerobic dance is challenging for new learners because it requires them to coordinate their dance steps with the beat of the song. The self-determination and focus of the learners are essential factors for success in learning. AW12 said, "I think it is because I am determined to learn this subject. I concentrate on practicing both during class

hours and practicing my dance moves with friends in the dormitory. When we are determined, we can do it. It makes learning enjoyable.” AW5 shared a similar experience: “At first, I danced entirely off-beat and had trouble remembering the routines. However, I passed the exams because I practiced with determination both inside and outside of the classroom. Everyone helped each other come up with moving and practicing together. It made it much easier.” AW11 also mentioned, “What I have learned so far is partly because I am determined. I have put much effort into this subject because I believe that learning something during class time is insufficient. We went to practice together outside of class. It made it easier for us.” This point could be summarized as the learners’ readiness, interest, and determination, which were essential factors that helped them seize opportunities for success in learning (Prasit, 2014).

### **Hindering factors**

Fast-paced teaching and use of specialized terminology needed to be understood by students. Research has indicated that aerobic dancing programs use certain vocabulary related to dance. The teachers tend to teach quickly, which becomes a challenge for the student’s learning. AW13 shared, “I got confused when the teacher explained the dance moves because they used a board with vocabulary words, but most of us did not understand what the teacher was explaining.” Similarly, AM10 mentioned, “At the beginning, the teacher taught relatively quickly and started with difficult exercises. I felt overwhelmed and could not catch up. However, it became better towards the later stages when I grasped the technique. However, the initial stage was tough.” AM7 also mentioned, “I felt that the teacher rushed a bit. We had a 3-hour class, and at the beginning, the teacher taught the practice steps, giving us about 1 hour to practice independently. Towards the end of the class, we were supposed to dance. I felt it was too rushed because we had not mastered the steps yet.” This finding indicated that teaching strategies played a crucial role in the learning process. Slow-paced teaching and clear communication could positively impact students’ learning. Teachers should select strategies that progressed from easy to complex based on the student’s abilities and use concise communication techniques to facilitate better learning outcomes (Salee, 2015; Usakorn, 2015).

Lack of ready equipment for learning. Using various learning media in aerobic dance classes is necessary, especially the sound system for playing music to dance to. However, the problem arises when the speakers are not functioning properly, with sound inconsistencies and interruptions during the dance routine. This disrupts the rhythm and wastes time having to start over or repeat the procedure. As mentioned by AW5, “It appears that there is an issue with the sound system because sometimes the audio is distorted or absent while we are



dancing, which causes us to lose our rhythm and requires us to start over or rewind. These wastes time.” Similarly, AM4 explains, “The problem is that we have to alternate who brings the speakers to the field, and by the time we set them up and run the cables, the afternoon is almost over. It takes place each week.” In this case, it can be concluded that the learning process will be impacted if the teaching tools are inadequate or not operational. This is consistent with the study by Mahalap (2018) which found that inadequate or malfunctioning learning equipment was a significant obstacle that affected students' learning, especially in practical subjects like physical education and sports, where learning is based on practical application. Therefore, it is crucial to set up adequate and functional equipment for practical use.

Difficulty and assistance required in comprehending the rhythm of the music. Students mentioned difficulties related to executing dance movement and their inability to comprehend the tempo in aerobic dance classes. AW8 mentioned the problem, “The difficulty arises from the instructor's expectation for each group to devise their own dance sequences. If they are not good enough, the instructor will intervene and modify them, making it even more challenging. Additionally, our basic skills are inadequate, which makes it harder for us to keep up with the others.” Similarly, AM10 mentioned, “My problem lies in catching the rhythm of the music. Different individuals have different levels of proficiency. As for me, I struggle to match the rhythm, making my dance routine appear forced and tense compared to others. It is even more difficult when the moves are not well-choreographed.” Furthermore, AM3 mentioned, “My problem is dancing offbeat. I can't catch the rhythm correctly, so I cannot dance harmoniously with my partner when practicing or during practice sessions. The problem starts from the beginning and becomes increasingly perplexing when complicated moves are introduced.” In this matter, aerobic dance has challenging dance moves and rhythms for students to learn. Therefore, it is imperative for instructors to employ efficacious communication techniques or pedagogical approaches to foster the acquisition of knowledge. One approach is the use of teaching cues, which can effectively impart practical skills, thereby facilitating students' comprehension and execution of the dance moves (Salee, 2015).

A long waiting period during the learning process. The teacher instructed each group to perform their dance routine and provided feedback on areas requiring enhancement or advancement. However, this results in a long waiting time for each group to present. AW13 mentioned, “I think the teacher exhibits a high level of concern for the students. They constantly provide feedback for each group. However, the problem is that they only watch one group at a time. Once a group has completed their presentation, the teacher proceeds to the next. However, the groups that did not meet the criteria are compelled to await their next turn. It can be a long wait.” Similarly, AM4 stated, “The teacher asks

us to come up with dance moves in our groups and then present the outcome to them. However, we must wait for our turn to present since the process is conducted on a group-by-group basis. We have to wait because the teacher needs to give feedback or point out what needs to be fixed before we proceed with further practice.” AM9 mentioned, “We have a total of six groups. The teacher examines the efficacy of the dance moves for each group and determines whether any enhancements are necessary. However, they only concentrate on one group at a time. The remaining groups must wait, and this duration is extended, it is not possible to fix it immediately.” Based on this information, extended waiting periods during activities can impact the learning process. Teachers should consider teaching methods that allow students to engage in continuous activities, communicate information clearly and directly, and avoid boredom caused by waiting (Salee, 2015).

Unfavorable learning environment. Aerobic dance lessons took place on a futsal field, which is covered but lacks proper ventilation, leading to a rather warm learning environment. AM6 mentioned, “Our lessons are held on the futsal field, which has a roof, but the temperature inside is extremely high. This easily exhausts us as we must dance continuously. It might not be different if we went to another gym, it would be preferable to have a location with better ventilation.” Meanwhile, AM7 said, “When we started learning in the basketball gym, the sound would echo a lot, making it difficult to catch the rhythm of the music. Many individuals struggled to catch the beat, resulting in our inability to dance accordingly.” AW12 added, “The temperature here is quite hot. The space we use for learning is wide, there is inadequate air circulation and no breeze. We must practice dancing for extended periods, so it becomes sweltering and exhausting.” This finding aligns with Kasemsan and Raphiphat (2022); Usakorn (2015) who discovered that unfavorable learning environments are significant obstacles in managing various sports-related activities that involved outdoor exercises. These environmental challenges included intense sunlight, scorching weather, or rainy conditions, directly impacting students' learning experience.

Unclear evaluation methods. Students required clarification about how their performance is evaluated. For example, AW8 mentioned, “I am curious about the teacher's assessment. I do not know how each student is graded and what aspects are taken into consideration. I asked the teacher in the first week how they would assess us, and they said they would provide us with the information in the subsequent week. However, the teacher gave us a Google form when the time arrived, and the specifics of the evaluation were not clear.” AW7 added, “Another issue is about the assessment. I feel like it is not very clear. I do not know how we are graded or the factors leading to deductions remain elusive. At the beginning of the class, the teacher explained the criteria, but I still feel it is unclear.” AW16 shared, “I feel like the teacher's assessment criteria are incon-

sistent. During the process of rehearsal, some groups were evaluated together, performing the same song, while others had to draw lots and undergo individual assessments, in pairs, with different songs." The evaluation procedure did not appear to be equitable. The responsible party should consider reviewing and improving the measurement and assessment of learning outcomes in aerobics dance to make it more efficient and introspective of the advancement in students' learning.

## **Conclusion**

From the learners' perspective, participating in aerobic dance classes is a positive experience as it benefits students and promotes activities with classmates. A negative experience is the pressure of being a dance leader. Instructors should provide practice to build the learners' confidence before they take on leadership roles. Additionally, beyond the supporting factors related to the instructors and classmates and the learners' personal motivation, teachers should place importance on adjusting teaching methods to suit the complexity of vocabulary and the challenges of aerobic dance skills. They should ensure equipment availability and appropriate learning environments, clarify assessment methods, and organize students into suitable groups to minimize waiting times during classes and the assessment procedure. This approach will maximize the benefits that students gain from their learning experience.

## **Recommendations for applying research findings**

Based on the research findings, it is evident that aerobic dance is a significant challenge, particularly for novice learners who are unfamiliar with the movements and rhythm. According to the students' learning level, teachers should gradually consider various teaching methods or presenting information, starting with simpler concepts before moving on to more complex ones. Additionally, they should establish continuous activity formats to minimize long waiting periods. Clear communication about the assessment process should be provided to prevent students from confusion and enable them to prepare adequately for assessment.

The readiness of the learning environment and equipment should be taken into account, as this can significantly enhance the effectiveness of teaching and learning aerobic dance toward the intended goals.

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### STATEMENT OF ETHICS

The study protocol was reviewed and approved by the Human Ethics Committee of Burapha University, with project code HU103/2565(C3) IRB2-088/2566, Chonburi, Thailand.

### DECLARATION OF CONFLICTING INTERESTS

The authors declared no potential conflicts of interests with respect to the research, authorship, and/or publication of the article *Army Combat Fitness Test evaluation for Air Forces Liaison Servicemen*.

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### AUTHORS' CONTRIBUTIONS

**Prateep Poonwatana:** Conceptualization; Methodology; Investigation; Formal analysis; Data Curation; Writing – Original Draft; Writing – Review and Editing; Visualization.

**Raphiphat Dueanphatsi:** Formal analysis; Validation; Writing – Review and Editing; Visualization.

**Kasemsan Panitcharoen:** Data Curation; Investigation; Writing – Review and Editing.

**Kritsada Surumpai:** Conceptualization; Methodology; Supervision; Project Administration; Resources; Writing – Review and Editing; Funding Acquisition.

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