

Learning Style Preferences Among Third Year College of Education Students of MSU-Sulu

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Abstract: Learning style preference refers to the unique ways an individual processes and retains new information and skills. This research study was conducted to determine the learning styles preferences of Third year students, MSU-Sulu College of Education. Specifically, the study aimed to answer the following questions: 1. What are the common learning style preferences of third year students of MSU-Sulu College of Education? 2. Is there a significant difference between male and female respondents on their learning style preferences? In the analysis and interpretation of data, the researchers used qualitative method in proving their learning preferences. Weighted mean (\bar{x}) and Description were used to analyze the data regarding the preferences of both female and male and its significant differences to their learning preferences. This study used survey type of method and distributed questionnaires to the Third year students of MSU-SULU, College of Education as their instruments to determine their learning style preferences. The respondents put only a check on a rating scale as to their strength on their learning preferences that they have. The total respondents were all thirty (30) with 15 Boys and 15 Girls. The main purpose of this study is to determine the study of learning style preferences of the third year students, MSU-SULU College of Education. The statistical population under investigation are both female and male third year students (juniors) in MSU-SULU, College of education year of 2016-2017. The Statistical population was consisted of 329 third year students. There were 30 respondents of this study. The common learning style preferences of the third year students are Group and Tactile learning preferences. There was no significant difference between male and female on the following learning preferences: visual, group, oral expressive, and Tactile. There was a significant difference between male and female on the following learning style preferences: auditory, bodily kinesthetic, individual, written expressive, sequential and global.

Keywords: Age and gender differences, Impact of learning styles on academic performance, Teaching styles and learning styles.

1. Introduction

A. Background of Study

"According to the Memletics model, everyone has a mix of learning styles, and learning styles are not fixed (Advanogy.com, 2003), so instructors should also accommodate other types of learning styles by providing diverse learning environments. McCarthy (1980) points out that instructors should vary activities so that students learn in their own preferred style and also can have a chance to develop other styles as well. As a result, matching and mismatching learning

styles and instructional methods will complement the students' learning performance and create more flexible learners in the long run."

Learning style can be defined as 'the way people absorb process and retain information' (De Bello, 1990, p. 203). One of the popular learning style models is the model developed by Neil Fleming in 1987. The model identifies a four primary types of learning styles: visual, auditory, read/write and kinesthetic, the initial of which are used to name the model the VARK model (Fleming & Baume, 2006). The model suggests that each learner has different learning style preferences to which he or she responds better than others. Despite the fact that the theory of learning style went viral in the 1970s, it has been debatable since, and has even become doubtful as time passed. While there is some research that indicated that there were some significant differences based on some factors, other research refuted the whole theory.

There are various learning style theories; some of 'which are more personality/motivation based' and others are more 'educationally based' (Howie, 2011, p. 47). It mainly focused on matching instructional style with individual learning preferences. Learning style preference is said to be influenced by a number of factors, some of which have more effect on certain learners or in certain stages than others. For example, when Ramayah et al. (2011) examined the effect of peer, technology, cultural background on learning style of business school students, they found that peer affected all four types of learning style, technology affected reading and writing, while cultural background of the learner affected visual, aural and kinesthetic learning styles of the participants. There have been several other studies confirming the effect of culture (Charlesworth, 2008; De Vita, 2010; Lee, 2011; Song & Oh, 2011).

B. Age and Gender Differences

A number of studies have shown a relationship between age and learning style preferences of the students (Raddon, 2007). Cornu (1999) examined the relationship between learning style, gender, and age. He found no significant a significant correlation between learning styles with both gender and age. Wehrwein, Lujan, and DiCarlo (2007) also searched the relationship between gender and learning style preferences among undergraduate physiology students. They found a

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significant relationship between these two variables.

Among many factors that may sometimes affect learning style preferences is gender. Tatarintseva (2002) explains that '[t]his problem is scientific and pedagogical interest since one goal for education is to provide equal opportunities for males and females'. This difference has been examined and addressed at many educational levels. Tatarintseva (2002), for example, examined the theory of gender differences in learning styles at secondary school. Wehrwein *et al.* (2007) compared learning style preferences of male and female psychology undergraduate students and found that the preferred learning styles of female participants differed than those of male participants in several ways. First, more than half of the female participants preferred unimodals whereas more than half of the male ones preferred multimodal, specifically quadmodal.

C. Impact of Learning Styles on Academic Performance

A considerable number of studies have investigated the relationship between learning styles and students' academic achievement, student attitudes, and student behavior at the primary and secondary school level (Griggs & Dunn, 1984; Smith & Renzulli, 1984) and at the college level (Brown, 1978; Charkins *et al.*, 1985). A number of them have found significant relationships between the learning styles and students' academic achievement (Kopsovich, 2001). Bennett (1993) believes that it is necessary to count for the relationship between learning styles and academic achievement on a country-context perspective.

Gokalp (2013) investigated the relationship between students' learning styles and their academic success. He found statistically significant differences between learning styles and academic success. Jilardi-Damavandi, Mahyuddin, Elias, Daud, and Shabani (2011) examined the impact of learning styles on the academic achievement.

They found that there was a statistically significant difference in the academic achievement of the students' learning styles. Results have not always been consistent. For example, in a study examining the relationship between students' learning styles and their academic achievements, Gappi (2013) found that there was no significant relationship between students' academic achievements and students' learning style preferences.

D. Teaching Style and Learning Style

Regardless to how learning styles are defined or categorised some teachers feel the urge to match their teaching style with their students' learning style instead of them expecting the students to accommodate to teacher's teaching style (Dunn & Dunn, 1979). However, there have been a number of studies that do not support learning style theory (Rogowsky, Calhoun & Tallal, 2015), and this raises a question: are there individual preferences or is there a different factor affecting learning style preferences? This paper sets to find what actually makes university students prefer a learning style over another.

One major criticism against VARK learning styles is that categorising learners into learning styles can impair motivation to improve one's skills. Secondly, although there are a

considerable number of studies illustrating preferences in learning styles among certain groups of learners, no or only weak studies have proven that focusing on individual's preferred learning styles in teaching (or learning) would yield better results than not doing so (Pashler *et al.*, 2009; Mayer, 2011).

Because of this fact, the researcher has decided to conduct this study in order to discover different learning style preferences of the third year students of Mindanao State University Sulu, College of Education and wished to find out if their learning preferences. The design to be used is descriptive correlational research design. The research output will be beneficial to the College of Education, its faculty, in considering different teaching methodologies to be employed so as to meet the diverse learning preference of the students.

E. Statement of the Problem

The primary purpose of this study was to determine if there are any significant differences of the Learning style preferences among the third year students of MSU-SULU College of Education. Specifically, it will seek to answer the following questions:

1. What are the common learning style preferences among third year students of MSU-SULU College of Education?
2. Is there a significant difference between male and female respondents on their learning style preferences?

F. Objectives of the Study

The researcher formulated the following objectives:

1. To determine the learning style preferences among third year students of MSU-SULU College of Education.
2. To determine the differences between male and female respondents on their learning style preferences.

The concept of this study was focused on the learning style preferences both boys and girls of the third year students in the college of education. Knowing which way students prefer to learn can help them get the best out of their studies. Some students may show a strong preference for one the ways of learning while others use a combination learning preferences.

Everyone has an extraordinary capacity to learn in many different ways to understand what a learning style preference is, just think of how student prepare to learn new things.

G. Significance of the Study

The researcher tried to make this study possible with the hope that it would serve as a guide for the school administrators, teachers, and students in framing the overall common learning style preferences utilized by the 3rd year students of the college of education. This study aimed to assist teachers in understanding the various learning style preferences.

H. Scope and Delimitation

The researcher aimed to study the learning style preferences among third year students of MSU-SULU college of Education, the significant differences of the learning preferences according to gender and to determine if there is any significant difference between learning style preferences of the third year students of MSU-SULU college of Education.

The respondents were the third year of MSU-SULU College of Education enrolled in the S.Y. 2016-2017, First Semester; the research study was conducted in the MSU - Sulu College of Education on November 18, 2016.

The study was limited to the third year students of MSU-Sulu College of Education and will not be rendered to the other levels of the College of Education.

I. Definition of Terms

Significant terms used in writing of this research were defined to facilitate understanding of this study.

Learning - refers to the acquisition of knowledge or skills gained through education. It is the permanent change in knowledge, understanding or behavior.

Learning style - "The ways in which an individual characteristically acquires, retains, and retrieves information are collectively termed the individual's learning style" (Felder and Henriques, 1995).

Preferences - refer to the view that one course of action or choice is more desirable than another. It is a way of doing something, especially a way regarded as expressing a particular attitude.

Learning preferences - refer to a person's characteristic patterns of strengths, weaknesses and preferences in taking in, processing and retrieving information.

MSU-Sulu - refers to the institution where the study is conducted. This stands for Mindanao State University-Sulu.

Third Year Students - refer to the junior students who are enrolled in College of Education S.Y. 2016-2017, second semester.

2. Review of Related Literature

The idea that individuals learn in different ways has been around for centuries. "As early as 334 BC, Aristotle said that "each child possessed specific talents and skills" and he noticed "individual differences in young children." (Reiff, 92.).

A. Learning Style

1) Definition of Learning Style

A number of definitions for the term "learning style" can be found in literature. "The ways in which an individual characteristically acquires, retains, and retrieves information are collectively termed the individual's learning style" (Felder and Henriques, 1995). The word learning is come from the word to learn. According to American Heritage Dictionary it means "(1) to gain knowledge, comprehension, or mastery through experience or study. (2) To fix in the mind or memory; memorizes. (3) To acquire through experience. (4) To become informed of, to find out" (Bower, 1981, p: 1). While Bower and Hilgard define learning as:

Learning refers to the change in a subjects behavior potential to a given situation brought about by the repeated experiences in that situation, provided that the behavior change cannot be explained on the basis of the subjects native response tendencies, maturation, or temporary states (such as fatigue, drunkenness, drives and so on). (Bower and Hilgard, 1981, p.11).

Reid (1995) asserts that "learning styles have some fundamental characteristics on which they are based". The first is that every person, student and teacher alike, has a learning style, learning strengths and weaknesses. Modern authors, who study the theory of language learning, consider the term "learning" or "learned system" as the product of formal instruction and it comprises a conscious process which results in conscious knowledge about the language, for example knowledge of grammar rules" (Schötz. 2007).

From the definition above, we can conclude that learning mean acquiring new, modifying existing knowledge, behaviors, skills, values, or preference and may involve synthesizing different types of information about language in formal situation deliberately.

Learning style (LS) is the way in which each person begins to concentrate on, process, and retain new and difficult information through different perceptual channels. Learning styles are defined as individual differences in the way information is perceived, processed and communicated (Haar, Hall, Schoepp, & Smith, 2002). Stewart and Felicetti (1992) define learning styles as those "educational conditions under which a student is most likely to learn." Thus, learning styles are not really concerned with "what" learners learn, but rather "how" they prefer to learn.

2) The importance of understanding learning style

Teachers in the ESL classroom can use students' learning styles as a tool to develop their students' learning. According to Ellis (1989), teachers can help students by understanding or knowing their students' preferred learning styles. Successful learning takes place when teachers play to students' strengths and build their capacity to learn in a range of style. For this firstly, teachers need to have an understanding of the different learning style within the class. It can be done by applying certain questionnaire to the students. Second, teacher should create learning opportunities through a variety of teaching strategies and techniques. Thirdly, after teachers find the students' learning styles, the strength and weaknesses; and finish creating teaching strategy and techniques, teacher should match learning style with teaching style.

When the teachers success in doing the three step above, while students then are likely to access easily the activities presented to them and will be enthusiastic and committed to the subject they are studying. Isemonger and Sheppard (2003, p.196) states as follows:

Clearly, knowing a student's learning style preferences is the first step to a more personalized approach to him or her, and is the first step to customized instruction and greater educational and productivity. In addition to this, knowing a student's learning style preferences is also a good starting point in helping the students to target and adapt to styles for which they have little current activity.

Matching learning styles with teaching styles seems to be a significant factor in the success of the learning process (Carrell & Monroe, 1993; Nachiangmai, 1998). On the other hand, a mismatch between learning styles and teaching styles may have a negative impact on classroom learning (Felder & Henriques, 1995). Based on Reid's (1987) hypothesis, "a mismatch

between teaching and learning styles causes learning failure, frustration and demotivation”.

3) *Perceptual learning style*

What is stored in memory are traces of perceptual events (Bower and Hilgard, 1981:302). Reid (1995) claims that three major categories of learning styles are widely recognized and relevant to the field of foreign language learning: sensory or perceptual learning styles, cognitive learning styles and affective/temperament learning styles. Sensory or perceptual learning style has to do with the physical environment in which we learn, and involves using our senses in order to perceive data. In studies on perceptual learning styles, Dunn (1990) has shown that learners whose preferred learning style is visual may have difficulty learning where the teaching mode is through lectures (auditory) as opposed to auditory learners who may prefer them.

Of particular interest to us for the present study is the perceptual learning style defined as a preference for one of the following learning modalities - auditory, visual, kinesthetic or tactile, group or individual. The perceptual perspective allows us to take into account aspects of several well-recognized learning-style theories by synthesizing their important characteristics into an approach that is based on behaviors and/or actions that can be easily perceived in a classroom situation. Sarasin (1998) claims that aspects of the learning style theories of Gregorc (1995), Butler (1998), Sims & Sims (1995), McCarthy (1991), and Harb, Durrant & Terry (1993) reflect an approach based on the primary senses (visual, auditory or tactile) involved in learning.

4) *Type and the characteristics of perceptual learning style*

a) *Visual*

As the name suggests, visual style refers to a preference for learning through vision, and visual learners rely on their sight to take in information. They organize knowledge in terms of spatial interrelationships among ideas and store it graphically (Nilson, 2003).

Visual learners are learners who “prefer to learn via the visual channel. Therefore, they like to read a lot, which requires concentration and time spent alone. Visual students need the visual stimulation of bulletin boards, videos and movies. They must have written directions if they are to function well in the classroom” (Oxford, 1995, p. 35).

In this type, the student has some characteristics such as prefers to read, to see the word, illustration and diagrams, talks quite fast, using lots of image, memorizes by writing repeatedly, remembers what she/he saw than she / he heard, when inactive, looks around, doodles or watch something.

b) *Auditory*

Learners who prefer the auditory style learn through hearing or listening to things. They learn best when they can hear themselves express an idea (Nilson, 2003). Auditory learners are “students who enjoy the oral-aural learning channel. Thus they want to engage in discussions, conversations, and group work. These students typically require only oral directions” (Oxford, 1995, p.36).

In this type, the student has some characteristics such as likes to be told, to listen to the teacher, to talk it out, talks fluently, in

a logical order, and with few hesitations; memorizes by repeating word words aloud; when inactive, talks to self or others.

c) *Bodily Kinesthetic*

Kinesthetic learning “implies total physical involvement with a learning environment such as taking a field trip, dramatizing, pantomiming, or interviewing.” (Kinsella, 1995, p. 172).

In this type, the students has some characteristics such as likes to get involved, hands on, to try it out; uses a lots of hand movements; talks about action and feelings, speaks more slowly; memorizes by doing something repeatedly.

d) *Tactile*

Tactile learning “suggests learning with one’s hands through manipulation or resources, such as writing, drawing, building a model, or conducting a lab experiment” (Kinsella, 1995, p. 172). Tactile learners learn by touching or doing. If you are a tactile learner, focus on using study tools that allow you to use hands or body to learn, such as the following:

- Walk around while studying.
- Move one body part, like jiggling your leg, while you read or study.
- If your text involves technical instructions or a step-by-step process, then physically work through the steps in order to absorb them.
- Build 3-D examples.
- Give speeches.
- Play with a small object, like a stress ball, in one hand while you take notes with the other.
- Do something physical before you sit down to study.
- Move your hand while you study: highlight, underline, take notes, or use your fingers to keep track of where you are when you read.
- Take regular breaks, get up, and move around.
- Talk with your hands. When you are rehearsing, memorizing, or explaining facts to yourself, move your hands like you would when you’re talking to another person.

e) *Individual learners*

Individual learners are learners who prefer to work alone than together with their friends. (Reid, 1995, p. x).

f) *Group learners*

Group learners are learners who prefer to work with others. (Reid, 1995, p. x).

g) *Oral expressive*

A learner whose mental framework is primarily influenced by spoken rather than literate forms of communication and who therefore learns primarily or exclusively by speech, song, etc.

h) *Written expressive*

This type of learner is someone who needs to read and/or write down the information to learn it. They do well by using the traditional study method of reading from a textbook and taking notes, and prefer to learn through words. This learner tends to enjoy reading and taking lots of notes.

i) Global

Global learning is the process of diverse people collaboratively analyzing and addressing complex problems that transcend borders. Global learners are intuitive decision-makers for whom interpersonal connections are important. They like to take their time when learning and think things through. They may have emotional responses to learning. They like to learn through stories and anecdotes and can often imagine what happens next.

j) Sequential

Sequential learning is a type of learning in which one part of a task is learnt before the next. Serial organization is fundamental to human behaviour. Sequential learners learn best in steps. They look at things systematically and do very well when given information in logical steps. Because sequential learners tend to follow paths to solve problems, they often solve parts of problems even if they do not fully understand them.

3. Methodology

This section presents the methodologies used by the researchers in conducting this paper.

A. Research Method

The researchers of this study used survey type of method and distributed questionnaires to the third year students of MSU-SULU, College of Education as their instruments to determine their learning style preferences. The researchers put only a check on a rating scale as to their strength on their learning preferences that they have. The total respondents were all thirty (30) with 15 Boys and 15 Girls.

B. Respondents

The respondents of the study were the College Education Students of MSU-Sulu both female and male. There were thirty students from the Third year level had given a research questionnaire.

C. Population and Sample

The populations of the study were the College of Education third year students at Mindanao State University Sulu. There were 329 students enrolled at the said college. The researcher obtained the number of enrollees from the registrar as well.

D. Sampling Procedures

The questionnaires were distributed to a total of 30 respondents among the third year college of education students of MSU Sulu. There were fifteen boys and fifteen girls.

E. Locale of the Study

The location of this study is conducted at the Mindanao State University-Sulu CAMPUS, with the approval of our adviser Dr. Norman J. Abdurahman, the researcher was able to launch his questionnaires to the students of this School. This came from third year students of MSU-SULU. College of Education of school year 2016-2017.

F. Treatment of Data

The treatment of data was done in such a way that the

questionnaires results were classified into 5 Rating Scales as follows: 1. Very Weak, 2. Weak, 3. Fair, 4. Strong, and 5. Very Strong.

Tables were presented and the interpretation of each table.

4. Result

Table 1
Learning style preferences of both boys and girls

Leaning Style Preferences	Weighted Mean(x)	Descriptions
Auditory	3.5	Strong
Visual	3.7	Strong
Bodily Kinesthetic	3.46	Fair
Individual	3.4	Fair
Group	4.03	Strong
Oral Expressive	3.33	Fair
Written Expressive	3.5	Strong
Sequential	3.43	Fair
Global	3.46	Fair
Tactile	4	Strong

Legend:

5 Very strong - 4.5-5.4

4 Strong - 3.5-4.4

3 Fair - 2.5-3.4

2 Weak - 1.5-2.4

1 Very Weak - 1-1.4

As shown in table 1 that the raters rated strong on the following preferences: Auditory, Visual, Group, Written Expressive & Tactile. On the other hand, they rated the following preferences as fair; Bodily kinesthetic, Individual, Oral Expressive, Sequential and Global.

Table 2
Learning style preferences of male

Leaning Style Preferences	Weighted Mean(x)	Descriptions
Auditory	3.4	Fair
Visual	3.66	Strong
Bodily Kinesthetic	3.66	Strong
Individual	3.26	Fair
Group	3.8	Strong
Oral Expressive	3	Fair
Written Expressive	3.33	Fair
Sequential	3.33	Fair
Global	3.6	Strong
Tactile	4.06	Strong

Legend:

5 Very strong - 4.5-5.4

4 Strong - 3.5-4.4

3 Fair - 2.5-3.4

2 Weak - 1.5-2.4

1 Very Weak - 1-1.4

As shown in table 2, that the raters rated strong on the following preferences of males; Visual, Bodily Kinesthetic, Group, Global and Tactile. On the other hand, they rated the following preferences as fair; Auditory, Individual, Oral Expressive and Written Expressive.

Table 3
Learning style preferences of female

Leaning Style Preferences	Weighted Mean(x)	Descriptions
Auditory	3.6	Strong
Visual	3.73	Strong
Bodily Kinesthetic	3.26	Fair
Individual	3.53	Strong
Group	4.26	Strong
Oral Expressive	3.33	Fair
Written Expressive	3.66	Strong
Sequential	3.53	Strong
Global	3.33	Fair
Tactile	3.93	Strong

Legend:

5 Very strong - 4.5-5.4

4 Strong - 3.5-4.4

3 Fair - 2.5-3.4

2 Weak - 1.5-2.4

1 Very Weak - 1-1.4

Table 4
Differences of the learning style preferences between male and female

Leaning Style Preferences	Weighted Mean(x)	Description	Weighted mean(x)	Description
Auditory	3.4	Fair	3.6	Strong
Visual	3.66	Strong	3.73	strong
Bodily Kinesthetic	3.66	Strong	3.26	Fair
Individual	3.26	Fair	3.53	Strong
Group	3.8	Strong	2.26	Strong
Oral Expressive	3	Fair	3.33	Fair
Written Expressive	3.33	Fair	3.66	Strong
Sequential	3.33	Fair	3.53	Strong
Global	3.6	Strong	3.33	Fair
Tactile	4.06	Strong	3.93	Strong

Legend:

5 Very strong - 4.5-5.4

4 Strong - 3.5-4.4

3 Fair - 2.5-3.4

2 Weak - 1.5-2.4

1 Very Weak - 1-1.4

As shown in table 4, that there are significant differences on the following learning preferences: Visual, Group, Oral Expressive, and Tactile while, there is no significant differences on the following learning preferences: Auditory, Bodily Kinesthetic, Individual, Written Expressive, Sequential and Global.

5. Summary of Findings, Conclusion and Recommendation

A. Summary

This research study aims to determine the “learning style preferences of the third year students of MSU-Sulu, College of Education” School year 2016-2017. The researchers of the study wished to find out the learning preferences of the third year students of MSU-Sulu and to determine if how a student learning style preferences link on their academic performance does.

The researchers used a questionnaire instrument in conducting their research study. The ten percent (10%) of the third year level students of MSU-Sulu were taken as respondents. Out of 30 respondents, there were fifteen (15) females and fifteen (15) males. Findings of the study, therefore, reveal that a tactile learning preference was found out to be more prevalent among the other learning style preferences.

Apparently, the findings of the study manifest that the majority of the third year students of College of Education have preferred way to learn by their own learning style preferences that can sustain up their academic performance. Some learn best by listening, some have to observe steps, and while most are typically stronger in one area than another the trick is figuring out preferred modality and capitalizing on strengths.

The answers of 30 respondents were classified into 5 rating scales:

1. Very, 2. Weak, 3. Fair, 4. Strong, 5. Very strong.

The said study was conducted at Mindanao State University-Sulu College of Education, under the administration of Prof. Nagder J. Abdurahman, Dean.

B. Summary of Findings

1. The respondents revealed that the common learning style preferences of the third year students are Group and Tactile learning style preferences.
2. There was no significant difference between male and female on the following learning style preferences: visual, group, oral expressive, and tactile. While, there was a significant difference between male and female on the following learning preferences: auditory, bodily kinesthetic, individual, written expressive, sequential and global.

C. Conclusion

In the light of the findings derived from this study, the following conclusions were deduced:

1. Male students generally more preferable in PHYSICAL learning preference than female students.
2. Female students are preferable in GROUP learning preference than male students.

D. Recommendation

After a careful review of the findings end analysis of data, these recommendations were presented:

1. Teachers ought to determine their students' learning preferences. Thus, they can adjust their strategies of teaching and can boost the interest of their students; end prefer other learning preferences.
2. Teacher should have a various technique to motivate their students and adapt more learning style preferences.
3. Teachers should have an enough ability to assess and measure their students' learning style preferences.
4. Evaluation of learning style preferences of students should not be based on one learning preference.
5. The school administrator should motivate the

learning style preferences and discussed the theory of Howard Gardner.

6. The teachers should respect the learning preferences of their student's end encourage them to strengthen more their learning.
7. The teachers must agree with the learning style preferences of their students whether they compatible that a sustain and enhance their learning in school.
8. The teachers must have e thoughtful support to the students who were using different learning style preferences. Understanding their learning style preferences strength and weakness can facilitate tailor their study for gathering knowledge.

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