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Adult Students' Perceptions of a Synchronous Distance Education Teacher Training Programme Using Microsoft Teams

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Abstract

This qualitative survey studies the perceptions of adult students enrolled in a teacher training programme in Greece. It examines synchronous distance education, the Microsoft Teams platform, and the prospect of strengthening and establishing this type of education after the COVID-19 pandemic. The survey used the semi-structured interview as a basic tool to gather students' perceptions of the teacher training programme, "EPPAIK". The results show that the benefits to the user of synchronous distance education, and the possibilities provided by the Microsoft Teams platform, are many. Most respondents consider it necessary to evaluate contemporary education, to establish a combination of both traditional and contemporary educational practices (hybrid learning/education), to achieve the best results in the future.

Keywords: distance education; synchronous distance education; distance learning; distance teaching; efficiency

Introduction

While Greece is trying to recover in the wake of the huge economic crisis of the last decade, the COVID-19 pandemic is undoubtedly another obstacle. Great technological progress on the one hand, and an unprecedented health crisis on the other, have brought about significant changes and reforms in all areas of daily life.

Education is one such area. Those in the field have needed to comply with new regulations to continue the production and transmission of new knowledge in the most efficient way. Synchronous distance education provides the flexibility and immediacy required for learning, education, and training in the current global situation.

Teleconferencing is generally regarded as a reliable educational tool because it is implemented conventionally and provides synchronous two-way audiovisual communication between individuals (Panagiotakopoulos et al., 2013; Armakolas, Panagiotakopoulos, & Magkaki, 2018; Kanellopoulos & Koutsouba, 2019). The objective of this paper is to investigate students' perceptions of synchronous distance education and the Microsoft Teams platform. The students were enrolled in EPPAIK, a 1-year teaching programme at ASPETE, the School of Pedagogical and Technological Education.

Teleconferencing in the field of education

Teleconferencing is the form of distance teaching in which instructor and trainees interact via telematics (Vogiatzaki et al., 2020).

It is logical that, to complete an educational programme through teleconferencing, the educational material should be tailored and specifically designed for that purpose. Students also need to make a personal effort to obtain a qualification (Armakolas, Karfaki, & Gomatos, 2021).

Teleconferencing that is based on distributed educational material, and the constraints of space and time (which relate only to two-way communication), can be distinguished as asynchronous and synchronous education. Asynchronous online education has no spatial constraints. Learners and teachers can interact from different locations, at a time that is convenient for all parties (no time coordination is required) (Sofos et al., 2015). Two-way communication takes place via email, instant messaging, or through forums. Synchronous distance learning presupposes coordination between learners and teachers but has no spatial constraints (Panagiotakopoulos et al., 2013). The electronic presence of all parties involved, at the same scheduled time, takes place through dedicated online platforms and applications that allow for two-way communication (Sofos et al., 2015). Teleconferencing is typical of synchronous distance learning. It enables the simulation of a real-time educational class because it allows for two-way communication, continuous interaction, and cooperation among the parties (Tzimogiannis, 2017).

It is important to note that synchronous distance learning ensures equal access opportunities to learning and education because it has no spatial limitations (it can be applied regardless of the location of either the teacher or the learners) (Liu, 2020). An important factor in assessing the effectiveness of a teleconferencing programme, and a factor that is directly linked to the operation and organisation of the system that provides it, relates to how learners understand its quality (Xu & Xu, 2019). To provide education of consistent quality, synchronous teleconferencing should, despite the potential for increased number of students, enable two-way communication between learners and teachers. This reduces learners' "sense of removal" (feeling of distance) as much as possible (Alqurashi, 2019). The main objective of distance learning is to put the necessary emphasis on learners' specific characteristics. Synchronous distance learning should, on the one hand, offer the expected learning experiences and meet the needs of students (Alqurashi, 2019) and, on the other hand, help to maintain students' interest, thus reducing the chances of them abandoning the programme (Gregori et al., 2018).

Efficient synchronous learning material requires suitable digital educational resources that meet the requirements of both learners and the curriculum (Bao, 2020). To make the implementation smooth, it is necessary to strengthen the learning by implementing information systems (in this case, including the MS Teams platform). Indeed, support for distance learning is realised with the help of digital platforms that meet the increased demands and challenges of online courses, be it with synchronous or asynchronous teleconferencing (Armakolas & Panagiotakopoulos, 2020).

The contradiction between the strong response to the factors in the educational process during distance learning and the low intention to integrate it with the normal educational process is attributed by the researchers to teachers' high pedagogical sensitivity.

> Bearing in mind the special pedagogical sensitivity shown by teachers, we would say that the need of the possible obliged, in a way, the officials of the school practice to a temporary conscious deduction of the requirements of pedagogy, implicitly accepting the integration into education of terms and concepts from the economic sphere. (Stachteas & Stachteas, 2020)

Secondly, according to the results of the survey, many of the participants are familiar with digital technology and manage the interface and software functionalities of online communication with relative ease.

Features of synchronous teleconferencing

The main feature and advantage of synchronous teleconferencing is the simultaneous participation of trainer and trainee. This results in live interaction, which is lacking in asynchronous teleconferencing (Armakolas & Panagiotakopoulos, 2020). With the help of videoconferencing systems, both parties can participate in the "live" virtual classroom from their own personal space. There are many advantages of using synchronous distance learning. Firstly, there are no physical or geographical boundaries, and knowledge is transmitted to even the most remote areas. This feature addresses the educational function uniformly because it offers equal opportunities for all in terms of knowledge acquisition, regardless of time and space constraints (Kanellopoulos et al., 2021; Armakolas, Panagiotakopoulos, & Karatrantou 2021). Secondly, the electronic classroom, which is very similar to the traditional classroom, is fully equipped and provides students with a direct connection to electronic sources. Thirdly, student numbers are increasing while operational needs are decreasing. Fourthly, each student's costs are minimised. Examples are the cost of transport (which students would have to pay in the case of traditional teaching) and the cost of purchasing textbooks (all sources are electronic and are provided to students at no additional cost [Karni & Kouraki, 2010]).

However, applying synchronous distance learning methods to education also brings peculiarities and problems that relate to the new way of communication between student and learner, the diverse educational material, the profile of the trainer, and the role of the learner through the emerging virtual learning environments. Effective treatment of these problems and peculiarities is key to the quality of teleconferencing provided in an educational institution. A major drawback of synchronous teleconferencing (apart from the lack of interaction between instructor and learner) is the difficulty in understanding the teaching material (Armakolas & Panagiotakopoulos, 2020). The structure of educational material has changed significantly in today's teleconferencing environment. Resources are now digital and there are many possibilities for creating and configuring electronic content. Educators now have word processing software (MS-Word, Open Office Writer), spreadsheet software (Open Office, MS-Excel), slide presentation software (MS-PowerPoint) and other text-forming, shape, and image tools to create online content. For even more functionality and more impressive results, tools are also available for creating multimedia digital content using network infrastructure and telematics services that have been developed in recent years. It is possible and very easy to distribute and display electronic teaching material online (Papadopoulou et al., 2022).

According to Hodges et al. (2020), online learning experiences that are planned and adequately designed are fundamentally different from lessons that are offered online in response to a crisis or disaster. In the case of the COVID-19 pandemic, we initially came into contact with both synchronous and asynchronous videoconferencing and tele-instruction. It was therefore necessary to seek effective alternatives. But of course, some obstacles should have been overcome. Learning to use the tools for synchronous distance education is not always easy, particularly for users who are not familiar with new technologies. Moreover, their use is not problem-free—specialised equipment (such as a video camera) is often required for effective functionality. In parallel with an educator's perspective, the new technologies may also be a challenge for teachers, because they have to acquire knowledge about new electronic tools (Armakolas, Panagiotakopoulos, & Karatrantou, 2021; Armakolas, Karfaki, & Gomatos, 2021).

The aim of this research was to answer the following questions.

1. How effective is learning through synchronous distance education?
2. What are its advantages and disadvantages?
3. How can synchronous learning enhance education after the COVID-19 pandemic?

Method

The survey uses the methods, techniques, and tools from the quality approach used by Panagiotakopoulos and Sarris (2015). “While some methods may have the glow of large samples, others may be attractive because of their sensitivity to insinuation or their ability to be explored in depth” (Gergen, 1989).

Participants

Nine adult students in the annual teacher training programme (EPPAIK) of the School of Pedagogical and Technological Education (ASPETE) in Greece participated in this quality survey. The “convenience” sampling method was chosen because potential teachers were available and approachable (Mertens, 2009, p. 375). The survey was conducted in March 2021, when all ASPETE curricula were first conducted entirely remotely due to the COVID-19 pandemic.

Instrument

To provide answers to the research questions, a qualitative survey using a semi-structured interview tool was chosen for the main research data collection. These interviews are particularly useful in the field of education because they contribute effectively to the collection of quality data (Kolar et al., 2015). According to McGrath et al. (2019), questions are initially asked in any form of interview. Replies to these questions are recorded, transcribed, and analysed. Using this procedure leads us to useful conclusions. The semi-structured interview is flexible because the layout, question structure, or the order of the questions can be changed depending on the interviewee. The process is fluid, and maximum possible data acquisition are achieved (Oltmann, 2016). This research tool also contributes positively to communication between interviewer and interviewee (Cohen & Manion, 2000; Panagiotakopoulos & Sarris, 2015).

Qualitative data

Open-ended questions were chosen for greater flexibility and in-depth research on this subject. The questions were structured according to the survey of Gogaki (2018); Armakolas, Karfaki, and Gomatos (2021), and Armakolas, Panagiotakopoulos, and Karatrantou (2021). Demographic data such as gender, age, and level of study are included at the beginning of the interview guide. Immediately after a thematic section about the participant’s familiarity with technology, computers, and the internet, there are two open-ended questions (Q1, Q2). These questions are designed to obtain sufficient data to answer the first research question.

There are then two topics that refer to the advantages and disadvantages of synchronous distance learning and the Microsoft Teams platform. The first topic has two open questions (Q3, Q4) and the other has one (Q5). The aim of the second research question is to relate the effectiveness of learning in synchronous distance education.

The third research question has been formulated with data from three more open-ended questions (Q6, Q7, Q8). The survey planning was completed with a pilot interview that was conducted to resolve any possible problems. Qualitative data was obtained after the answers had been grouped and categorised according to subject matter and then into common analysis categories (Bogdan & Bilken, 1982).

Findings, analysis, and discussion

Demographic evidence

In this investigation, the sample group comprised nine students (eight women, one man) from EPPAIK. Two were between the ages of 18 and 29, three were between 30 and 39, three were between 40 and 49, and one was over 50. Seven had postgraduate qualifications, one was a university graduate, and one had a doctorate.

Analysis of quality data from the students

Effectiveness

Initially, the students were asked how familiar they were with technology, computers, and the internet (Q1).

Eight of the nine respondents answered positively.

> S1: I am quite familiar. I acquired my MBA remotely. I have followed other programmes through distance learning. I work via computer.
>
> S2: I believe I am at a good level.
>
> S3: I am quite familiar.
>
> S4: My first degree was in IT and my master's degree in IT management, so I'm familiar with computers and computer programs.
>
> S5: Not too familiar, I only know the basics.
>
> S6: I am quite familiar, I have a certification, I use the computer and the internet to work from home, to conduct graduate studies and other tasks, to search for information, etc.
>
> S7: I would say quite familiar.
>
> S8: I would say quite familiar, but not as much as the younger generation. I try my best to keep up with technology.
>
> S9: De facto enough due to work.

From these responses, we can clearly see most respondents feel quite familiar with technology, computers, and the internet.

Students were also asked whether they have ever attended another course through synchronous distance learning (Q2).

Five of the nine respondents answered negatively.

> S1: No. I've attended some synchronous distance learning sessions because it was mandatory and asynchronous classes.
>
> S2: Yes of course, at the Open University, for my master's degree.
>
> S3: Yes, I have attended a few. It was for some educational seminars.
>
> S4: No, this is the first time I've attended one.
>
> S5: "No, this is the first time."
>
> S6: No, no, this is the first time.

S7: Yes, of course.

S8: No, I haven't attended.

S9: Yes. The last one was for my master's degree. In addition, seminars are held from time to time. I used ZOOM and WEBEX mostly.

From these answers, we conclude that more than half of the students have never attended any educational programme that uses synchronous distance education. Only a few have ever been in the position to use distance learning.

Advantages and disadvantages

Students were also asked for their opinion of the benefits of synchronous distance learning (Q3).

All nine subjects answered positively, expressing the following benefits.

S1: It certainly brings benefits to the situation we are experiencing now because of COVID. From here on in, I think it cannot be compared with face-to-face education.

S2: In actuality, you are spared the time it takes to commute to the university which can be outside of the city where you live.

S3: The benefit is that you can be in your own place, or at any other place, to attend the virtual lesson. You can also organise your schedule more effectively.

S4: It definitely gives the student the opportunity to be in their own space, to be comfortable and attend the lesson. It is not necessary for them to attend the lesson at the lecture hall.

S5: The benefits are that it allows the students who cannot attend lessons at the specific venue, to attend online. Also, it provides knowledge on the use of new technology and the internet.

S6: The main benefit is that we can attend programmes of study without being physically present; we are given the opportunity to attend programmes that would not otherwise be possible. We can also save time, for example, commuting to and from classes. This way we only require time for the course. We save money in this way as we do not spend money moving from place to place and we also have the opportunity to take the lesson in the comfort of our home.

S7: It's that you can be anywhere, you don't have to be in the place where the teaching is taking place. The benefits are also that you are in your own space, which is very convenient and easy, especially for long lectures.

S8: The benefits are economical, and this shortens the distances.

S9: First of all, accessibility. The access you have to information unties your hands. And you can do whatever you want. It's quite affordable and everybody can afford it, from the little child who is 3 in preschool, to the other who is 60 and maybe wants to take classes to learn English for example. There is no limit to what you can do.

From the respondents' answers, we conclude that everyone has identified some benefits of synchronous distance education. Students save time and money with videoconferencing, they are not affected by commuting, they participate in the comfort of their private space, and they become more familiar with computers and the internet.

Students were also asked whether the contemporary Microsoft Teams teleconferencing platform effectively contributes to the above benefits (Q4).

Eight of the nine responded positively.

> S1: I have never attended classes with a similar platform, so I don't have anything to compare it to, but I think it's OK, even though it has a number of technical issues.
>
> S2: Yes, the platform is efficient, it is very good and at a very good level.
>
> S3: Yes, because it is a platform for synchronous distance learning. It does the job it is supposed to do. It doesn't really freeze that much, compared to other platforms. It's a good platform.
>
> S4: Yes, of course.
>
> S5: Yes, I think it contributes.
>
> S6: I think it offers all of the above and meets the requirements for a successful videoconferencing platform.
>
> S7: Yes, even though it has many technical issues.
>
> S8: Yes, it does contribute to having a hundred people together, collaborating, communicating and following the course through it rather than in person.
>
> S9: No. I don't think it's a good platform at all. I don't like it, I don't like its functionality, I don't like its performance. You can do a much better job on other platforms.

From these answers we conclude that Microsoft Teams contributes to the benefits of synchronous distance learning quite effectively.

The students were also asked their opinion about the disadvantages of synchronous distance learning compared with face-to-face learning (Q5).

All nine responded positively that disadvantages do exist.

> S1: We cannot attend our classes normally, as we would in person when there are other family members at home. Then there are the operational issues of the platform.
>
> S2: Face-to-face learning, in my opinion, cannot be replaced by distance learning. The lesson is much better, there is contact between the classmates and with the professor. There's a different kind of atmosphere in a physical room, and that doesn't change with any platform.
>
> S3: The downside is that you do not socialise with other people, and you are talking to a computer, there is also the possibility that no one hears you.
>
> S4: There are certainly drawbacks as well, such as the fact that this year we did not meet any of our classmates in person. There is no live contact and communication with them. This is what is nice about lessons in person, the exchange of views and opinions.
>
> S5: The downsides are that in distance learning, there is no interaction between the students and the professors, which is something that exists in real life and many times. During distance learning it is easy for your attention to turn elsewhere and not focus on what you are doing.
>
> S6: There are definitely drawbacks, the main one is that there is no direct interpersonal contact as in face-to-face direct learning. Distance learning is impersonal. I think that learning in person is easier to achieve. There is also an intimacy between the educator and the students or between the students themselves. On the contrary, in distance education,

communication with the teacher and the student is minimal, so communication skills are not developed. Finally, understanding the subject matter is not as easy or fast.

S7: Visual contact with other students and with the teacher in synchronous distance education is definitely lost. Technical problems often don't allow you to watch or conduct the lecture. You still don't have the same incentive to learn. It's also difficult to attend a lesson or lecture when there is only one computer in the house and other family members need to use it at the same time.

S8: The downside is that you do not have personal contact with the professor and your colleagues. It's a different experience to watch the professor in person, you'll get more information from them, I think. A percentage of knowledge is lost in relation to face-to-face lessons.

S9: In synchronous distance education you do not have direct contact with each other, the sociability and healthy competition that can develop between groups face to face is lost.

From these responses, we understand that the main advantage of learning in the classroom is the personal contact and interaction of all participants in the educational process. Interpersonal communication, the exchange of views and so on is lacking nowadays but is being intensely sought. These are the major drawbacks of synchronous distance education.

Learning after the pandemic

The subjects were then asked whether a digital class could be as dynamic and efficient as the physical one (Q6).

Eight of the nine respondents answered negatively.

S1: No, mainly for the reason I mentioned earlier. That, for me, I don't have the same peace and quiet and I can't have the same concentration level as I would have in classes that are face to face. So, it's not easy for me.

S2: No, just the fact that there is a screen in front of you and there is no direct contact between the classmates and the professor is an issue. At the time when the lesson is taking place, the student may get sidetracked with something else and there is a person who simply talks for hours. The instructor also feels alone, especially if the cameras are turned off and there is no participation.

S3: An effort could be made but it will not have the same dynamic as it would in the classroom. This is usually because there is always something there to distract you during distance learning and there is the possibility that you would do something else at the same time and it takes your attention away from the lesson. Or you just don't want to watch the lecture, or you may not want to participate and state your opinion for fear of being ridiculed by others.

S4: Yes, but not always because you hide behind the screen, they don't see you, they don't always have to answer, you don't always want to answer questions.

S5: I think that it can't because in distance learning, there is no interaction between the people who are participating and there is no eye contact, this makes it more difficult to create a relationship and a connection during the lesson.

S6: I believe that no matter how good a digital class is, it cannot be as dynamic and effective as a physical classroom. The subject matter is not understood as easily and as quickly as in a physical class, there is no communication, development of communication skills, and so forth.

S7: No, interaction between the parties is not the same. No matter how well the lesson is taught, the interaction is not the same.

S8: No, it is not the same as a physical classroom because you can see the other person up close, there is also body language. A lot of these things get lost in a digital classroom.

S9: No.

From these answers, it can be concluded that a digital classroom cannot be as dynamic or efficient as a physical one. Many find it harder to concentrate in a digital classroom, and there is less direct contact, communication, and interaction between the individuals than in a physical classroom.

Students were also asked to give their opinion of how to ensure the effectiveness of distance learning, given that the teacher had no direct contact with the learners (Q7).

Five of the nine responded positively by noting some ways in which the teacher can ensure the effectiveness of distance learning.

S1: It is definitely more difficult for the educator. They cannot do as much as they would like to on a platform, to make it an interactive lesson that is also engaging. But at least I can say that the teachers at ASPETE certainly tried their best. Some of them have tried, for example, to put us into groups, to show us videos through the platform which I think are quite entertaining and this helped us remember course material.

S2: Essentially through working groups. In addition, the teacher who instils information directly to the student during the course, without getting tired, contributes to this. When they include the students themselves in the lesson and in the introductory "game" that is happening. So, you learn at that specific time what it is you need to learn, and you're done.

S3: This is clearly in the hands of the educator and how hard they try to motivate their students and keep their attention. They have to have a presentation, a course that engages students. The collaborative projects that we've been doing, I think, are working because there are certainly more students who are more active and more attentive. To ask them questions, to teach an interesting lesson, to have discussions as much as possible.

S4: Maybe with group collaboration. Group collaboration may be the method to use to get and keep the attention of their students.

S5: It is ensured by the learners when they intend to read the material they are given. Teachers could ensure the effectiveness by uploading all the material they have and showing it to the students.

S6: I don't think it is ensured, but an effort is made. Only through evaluation can the effectiveness be seen, but of course, this process is not flawless. From the students' perspective, there must be the necessary consistency in attendance, etc. Even though they may have their cameras turned off etc. or they may not be heard at all during the lesson, they must pay attention.

S7: Certainly in this situation the main motivation is the educator. We've seen lessons in which the educator does not create motivation and [they] are therefore not effective. The teacher should be able to show something, to motivate, to create groups or break rooms. There are many ways in which a lesson can become engaging and at the same time motivate students. But it is, first and foremost, up to the teacher, the teacher has to be willing to make the move.

S8: I am not sure it is ensured from the moment when there is no direct contact. It may be partly assured. In general, communication can be ensured, even if it is only by image.

S9: It's purely a matter of people's mentality.

From these answers, we can conclude that the effectiveness of distance learning is ensured mainly through the educator, the educational material used, the way the course is conducted, and its techniques and methods. The more interesting these are, the more interesting and effective the lesson will be even if there is no direct contact between the people.

The next question had to do with whether, in the students' opinion, face-to-face teaching could be replaced (Q8).

Seven of the nine responded negatively.

S1: It can be substituted, but not entirely.

S2: No, it cannot be substituted.

S3: No.

S4: No, no.

S5: No, it cannot be substituted.

S6: No, it cannot be substituted.

S7: No, no.

S8: No, it cannot be substituted. It's not the same.

S9: Yes, because I believe that even with face-to-face learning, if the student doesn't want to learn, they won't learn.

From these answers, it can be concluded that almost everyone believes that traditional face-to-face teaching cannot be replaced. Only one respondent argued that it could be replaced with distance teaching while another claims that it could be replaced, but only partially.

Conclusions

We collected the qualitative data through the semi-structured interviews. According to the judgment of the researchers (who had themselves been participants in this particular educational programme), and after analysing the data, we came to the following conclusions.

With regard to the first question, we conclude that the benefits of synchronous distance learning are: the non-movement of students to and from the educational institution; the saving of time and money; and further familiarisation with technology, computers, and the internet. According to Koustourakis and Panagiotakopoulos (2010), to cultivate technological literacy it is necessary to synchronise the educational environment with the digital media that is available. Moreover, students who participate in courses from their personal space have the comfort and flexibility that they need. The Microsoft Teams synchronous distance learning platform helps to deliver these benefits. Despite the minor technical difficulties, the platform is considered satisfactory and easy to use. The capabilities it provides the user are many and are confirmed according to the survey done by Armakolas, Karfaki, and Gomatos (2021).

The main disadvantage of synchronous distance learning is the lack of direct contact and interaction between the students, and between instructors and students. Moreover, some students, due to a variety of factors, are unable to focus on the lesson, or find it difficult to concentrate

when videoconferencing in their personal space. At this time—due to the pandemic and social distancing—the lack of direct contact, communication, and interaction are magnified.

With regard to the second research question, we conclude that to achieve efficient teaching and learning in synchronous distance education, the instructor plays the most important role, followed by the educational resources, and then teaching methods and techniques. Most students may believe that a digital classroom is not as effective and dynamic as a physical classroom; however, the effort put into making it effective is obvious. Teaching methods and educational resources both play an important role in synchronous distance education. The resources must be even richer than those used in the physical classroom, and they must be applied in a manner that will attract students' attention and stimulate interest. Even synchronous teaching and evaluation methods and techniques (e.g., collaborative teaching) contribute effectively to the educational programme. The survey conducted by Armakolas, Fragkoulis, and Mitroulia (2021), is confirmed. Synchronous distance education has a considerable impact on the effectiveness of learning objectives (Kazana et al., 2022). Most of the participants expressed satisfaction with the level of understanding and new knowledge acquired. The remaining percentage would probably benefit if education were solely face to face because they believe that the latter cannot be replaced (Gkila et al., 2022).

With regard to the third research question, we conclude that synchronous distance learning and its benefits need to be further assessed after the end of the COVID-19 pandemic. The majority propose the exclusive application of synchronous and asynchronous distance learning in the short term as an emergency solution, as is now the case. In the long term, it is argued that educational programmes such as EPPAIK of ASPETE (and more generally) should be implemented in conjunction with face-to-face education for better results and to use the benefits of all teaching methods. In particular, it is believed that workshop courses or practical training exercises (PAD) should be done face to face.

Finally, to allow conclusions to be generalised, it is recommended that new studies be carried out on a larger scale.

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