

## Developing Practical Skills in Differentiated Learning: Training for Prospective Teachers in Malaysia

Bagus Cahyanto<sup>1</sup>, Fita Mustafida<sup>2</sup>, Hafiz Udabi Ersyan Syahputra<sup>3</sup>

Universitas Islam Malang<sup>1,2,3</sup>  
{[baguscahyanto@unisma.ac.id](mailto:baguscahyanto@unisma.ac.id)<sup>1</sup>, [fita.mustafida@unisma.ac.id](mailto:fita.mustafida@unisma.ac.id)<sup>2</sup>}

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### **Keywords:**

Training;  
Accompaniment;  
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**Abstract.** *This training was conducted for prospective teachers at Universiti Kebangsaan Malaysia (UKM) to develop participants' understanding and practical skills in differentiated learning. This community service was designed in several stages including preparation, socialization, mentoring, and monitoring and evaluation of activities. The training materials included materials on student diversity, dimensions of diversity, equality and justice in learning, learning according to ability level, basic principles of differentiated learning, strategies for differentiating learning, and assessment in differentiated learning. The community service team also provided assistance to participants in preparing learning designs and ended with filling out a questionnaire to assess the implementation of the training as a whole. The results of the questionnaire showed that 93% of participants experienced an increase in understanding, 95% were motivated to implement differentiated learning and 100% of participants gave a positive response to the community service activities.*

### **Kata kunci:**

Pelatihan;  
Pendampingan;  
Pembelajaran  
Berdiferensiasi;  
Calon Guru.

**Abstrak.** Pelatihan ini dilakukan kepada calon guru di Universiti Kebangsaan Malaysia (UKM) untuk mengembangkan pemahaman dan kemampuan praktis peserta tentang pembelajaran berdiferensiasi. Pengabdian ini didesain dalam beberapa tahapan yang meliputi tahapan persiapan, sosialisasi, pendampingan, serta monitoring dan evaluasi kegiatan. Materi pelatihan meliputi materi keberagaman siswa, dimensi keberagaman, kesetaraan dan keadilan dalam pembelajaran, pembelajaran sesuai dengan tingkat kemampuan, prinsip dasar pembelajaran berdiferensiasi, strategi mendiferensiasi pembelajaran, dan penilaian dalam pembelajaran berdiferensiasi. Tim pengabdian juga melakukan pendampingan kepada peserta dalam penyusunan rancangan pembelajaran dan diakhiri dengan pengisian kuesioner untuk menilai pelaksanaan pelatihan secara keseluruhan. Hasil dari kuesioner menunjukkan bahwa 93% peserta mengalami peningkatan pemahaman, 95% termotivasi untuk menerapkan pembelajaran berdiferensiasi dan 100% peserta memberikan respon yang positif terhadap kegiatan pengabdian kepada masyarakat.

## 1 Introduction

Failure of learning practices in schools is often influenced by teachers' low ability to manage classes and manage learning. This is reinforced by the research results of (Reddy, Shernoff, dan Lekwa 2021) which shows that the teacher's ability to manage the classroom and learning is a crucial factor because teachers have a central role in creating learning that is in favor of students. The ability to manage this class includes various aspects such as classroom layout, time management, discipline, and interaction between teachers and students. Without this ability, the learning process can be disrupted and cause a lack of student attention and ultimately affect learning outcomes that are not optimal. Effective classroom management requires teachers to have skills in creating a positive environment. This also includes the teacher's ability to establish clear and consistent rules and procedures in the classroom (Amalia, Safrida S, dan Ulva 2024; Astuti dan Afendi 2022).

Apart from that, teachers also need to recognize and respond to the various needs of students and facilitate interaction between students. (Mirzachaerulsyah 2023) research shows that teachers who are able to manage the class well have an impact on students tend to be more involved in the learning process and achieve better learning outcomes. In the general learning context, the abilities that teachers need to master include several aspects including skills and strategies for creating a learning environment that facilitates student diversity (Dalila dkk. 2022; Faigawati dkk. 2023). Good classroom management is not only related to the physical arrangement of the classroom, but also about how teachers can facilitate positive interactions, maintain discipline, and motivate students. Teachers must establish clear rules and procedures from the start, and apply them consistently. This is important to build a safe and comfortable learning environment where students feel valued and supported (Smets dan Struyven 2020; Sulistianingrum dkk. 2023).

Teachers who are able to carry out learning in an interesting and meaningful way will find it easier to motivate students to be actively involved in the learning process. Teachers need to choose teaching methods that suit students' needs and characteristics, use technology in learning, and provide constructive feedback. Good learning management requires careful and systematic planning, teachers must design flexible teaching modules that are easily adapted to student development and curriculum demands. The teacher's ability to manage learning, careful lesson planning, choosing appropriate learning methods and strategies, as well as the ability to motivate and inspire students will have a big

impact on achieving differentiated learning goals (Aguanda dkk. 2023; Eikeland dan Ohna 2022).

Delivery of teacher learning material in an interesting and relevant way has been proven to increase student interest and participation. Research by (Aljowaysir, Ozdemir, dan Kim 2019; Morgan 2014) shows that the use of various appropriate learning methods according to students' needs and learning styles can increase understanding and encourage student involvement in the learning process because learning occurs flexibly and is responsive to needs and abilities, and student interests. To support the implementation of differentiated learning, teachers need ongoing training and mentoring. However, the basic thing that needs to be done is to equip prospective teachers with the ability to organize and implement differentiated learning to prepare professional teaching staff (Supriyadi dkk. 2023), therefore one of the solutions offered by the service is to provide training to prospective teachers about differentiated learning.

Differentiated learning is considered an educational approach that is able to adapt the teaching and learning process according to the needs, abilities and interests of each student. This training is designed to provide an in-depth understanding of the basic concepts and principles of differentiated learning. This training will also discuss the principles of universal design for learning (UDL) which emphasize the importance of providing various ways for students to access learning materials, engage in the learning process, and demonstrate their understanding. Apart from theoretical understanding, this training and mentoring will also emphasize the practical skills needed to implement differentiated learning in the classroom. This solution was also carried out by (Lukman, Setiani, dan Agustiani 2023; Wiryanto dan Veronica 2024) by providing assistance in developing differentiated learning to teachers. This assistance aims to equip teachers with the skills and knowledge needed to implement differentiated learning in schools.

However in this service activity the service members carried out similar efforts abroad precisely at Universiti Kebangsaan Malaysia with the participants being prospective teacher students. Service members see opportunities to share knowledge with international educational institutions in the hope of expanding the positive impact to the international level. Universiti Kebangsaan Malaysia was chosen because of its reputation as one of the leading educational institutions in Southeast Asia with a strong commitment to educational innovation and professional development for prospective teachers. Apart from that, the

service wants to introduce the concept of differentiated learning which is part of the uniqueness of the Indonesian national curriculum (Mastuti, Abdillah, dan Rumodar 2022), namely the Merdeka Curriculum to prospective teachers in Malaysia. With this service, the service team hopes to provide new insights to prospective teachers in Malaysia about how flexible learning can improve the quality of learning and student engagement. This service is designed with several systematic stages to ensure participants have a good understanding of the training material (Rintayati dkk. 2023; Supriyadi dkk. 2023).

## 2 Method

In general, this service activity is divided into 2 stages which include the socialization stage and the mentoring stage. At the socialization stage, the service team provides a presentation of material related to differentiated learning which includes diversity of students, dimensions of diversity, equality and justice in learning, learning according to achievement or level of ability, principles basics of differentiated learning, strategies for differentiated learning, and assessment in differentiated learning. After the socialization activities were completed, the service team provided assistance to all participants in preparing differentiated learning plans. At the end of the session, the service team provided a questionnaire presented in g-form to the training participants to assess and evaluate the implementation of the training activities as a whole. Participants also provide feedback to the activity organizers for further improvements.

The subjects of this community service are prospective educators and those who are interested in improving the world of education at Universiti Kebangsaan Malaysia who are currently studying higher education. These prospective teachers are individuals who are preparing themselves to enter the professional world as educators, so this training is very relevant and important to develop their competence in facing the challenges of student diversity in the classroom. Universiti Kebangsaan Malaysia is one of the partner institutions that has collaborated in recent years in education, research, and community service activities. In this service activity, participants are divided into several groups. The process of forming this group was carried out with the help of the university which was deemed to have in-depth insight into the academic profile and background of each prospective educator.

With this information, it is very helpful to ensure that the groups formed have a diverse composition. Apart from that, the division into groups was carried out with the aim of ensuring that the material provided was right on target. These groups function as collaborative learning units, where participants can share experiences and insights as the activity takes place. In general, these stages can be seen in Figure 1 below.

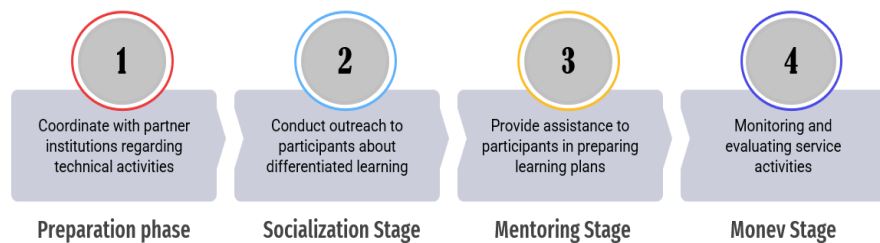


Figure 1. Stages of Training and Mentoring Activities

Based on this picture, it is clear that the stages that the service team goes through in training activities are very structured. The entire series of activities always involves partner institutions to coordinate to ensure that step by step they are in accordance with the needs and circumstances of the training participants. In the preparation stage, the service team coordinates with partner institutions regarding technical activities for the smoothness and success of this service program. The team and partner institutions agree on the general and specific objectives of the service program while ensuring that both parties have the same understanding of what they want to achieve including activity plans, schedules, methods, training materials and necessary infrastructure preparation.

Next, the service team carried out outreach to explain the material or basic concepts of differentiated learning to the participants. In this stage, participants will receive an explanation of the importance of differentiated learning, including how this approach can help meet individual needs and improve student learning outcomes. This outreach is carried out through presentations, group discussions and case studies to provide a clear picture of the practical implementation of differentiated learning. At the mentoring stage, the service team deepens participants' understanding of the training material. This mentoring involves participants preparing learning plans which are practical applications of the theory and skills they have learned. In this stage, participants are guided to develop a learning design that integrates the principles of differentiated learning. The service team

provides feedback and suggestions for improvements to ensure that the resulting design meets the expected standards.

To ensure participants' understanding of the training material, the service team also carries out monitoring and evaluation. This serves to identify aspects that require improvement and additions. Through a service design consisting of these stages, it is hoped that participants will be able to gain a deep understanding of differentiated learning and be able to apply it in their educational environment. The expected final result of this program is the creation of teachers who are competent and skilled in implementing differentiated learning. This community service program is said to be successful if more than 75 percent of the training participants respond well to all the activities we have carried out.

### 3 Results

This training is carried out in 2 main sessions, namely socialization and mentoring. Participants are invited to understand the material flexibly and systematically using various methods and approaches. There are several findings that emerged during the implementation of this community service program. The first step we took was the preparation stage. At this preparation stage, the service team carries out intensive coordination with partner institutions. This is done to ensure that the technical plans for the activities to be implemented can run smoothly and achieve success as expected. This coordination process involves a series of meetings and discussions held with partner institutions offline and online via g-meet to align common goals (both parties) and determine strategic steps to be taken during the service.

At the beginning the service team and Universiti Kebangsaan Malaysia partners agreed on the main goal which included increasing participant competency in implementing differentiated learning. Apart from that, service is focused on specific aspects such as mastery of certain techniques, increasing theoretical understanding and ability to implement differentiated learning. Agreement regarding these goals is carried out to ensure that all parties involved have the same understanding of what is to be achieved. At this stage we also prepare a detailed activity plan including the program implementation schedule, teaching methods that will be used, and training materials that will be delivered.

The schedule prepared is made to be realistic and flexible and allows for adjustments if situations or sudden needs change. Furthermore, it

also discusses things that are no less important, namely those related to infrastructure preparation. The service team and partner institutions ensure that all facilities needed for the implementation of service are available and functioning well. This includes training rooms, presentation equipment such as projectors, as well as access to the internet. Apart from that, logistical aspects such as accommodation and food are also carefully planned to ensure participants' comfort during the service activities.

The next stage, the service team carries out core service activities, namely socialization and mentoring. Socialization is carried out by presenting material about differentiation learning to participants in a structured and systematic manner. This is an important step to ensure that all participants have a deep understanding of the essence and implementation of differentiated learning in schools. This socialization is designed using a pattern of activities in sessions to provide a strong theoretical understanding as well as practical instructions on how this concept can be applied in a real educational environment. Participants receive a comprehensive explanation about the importance of differentiated learning by the service team.

In general, the service team emphasizes that through differentiated learning, every student can achieve their maximum potential and have better learning outcomes. In addition to the theoretical explanation of socialization, it also highlights how differentiated learning can be applied in everyday practice. The service team outlines various approaches and strategies that can be used to differentiate in learning. Participants are also introduced to various tools and resources that can support the implementation of differentiated learning. To ensure in-depth understanding, this socialization is carried out through various interactive methods such as presentations, discussions, questions and answers, and collaborative projects.

This is expected to provide opportunities for participants to share experiences, ideas and real conditions they face. On the other hand, the service team also presented various real cases that show how differentiated learning is applied in various educational contexts. With an interactive method based on real experience, it is hoped that participants can internalize the concept of differentiated learning and be able to implement it to improve the quality of learning. This socialization was attended by 30 participants discussing in detail about (a) diversity of students, (b) dimensions of diversity, (c) equality and justice in learning, (d) learning according to achievement or level of ability, (e) basic

principles of differentiated learning, (f) differentiated learning strategies, and (g) assessment in differentiated learning. These activities are reflected in Figure 1 below.



Figure 1. Delivery of Differentiated Learning Materials

Then at the mentoring stage, the service team focuses on deepening the participants' understanding of the training material that has been presented previously. This mentoring is designed to help participants apply the theory and skills they have learned into practical contexts, so that they can develop their abilities in designing and implementing differentiated learning. The mentoring process involves participants in preparing differentiated learning plans. In this stage, participants are directed to integrate the principles of differentiated learning into the learning designs they create. This approach includes adapting teaching methods, teaching materials, and assessment techniques to suit student needs and characteristics. The service team provides guidance, input and suggestions for improvement to give participants the opportunity to improve the learning design so that it truly meets the expected standards. Discussion activities on preparing learning plans can be seen in Figure 2 below.



Figure 2. Participants discuss and develop projects with each other

To ensure participants understand the training material, the service team carries out monitoring and evaluation. This monitoring aims to determine the extent to which participants have understood and applied different learning principles in developing learning designs. Information from monitoring and evaluation results is used to identify aspects that still require improvement in training. Indicators of the success of



community service activities are measured based on participants' responses in implementing training and mentoring. The service team has determined several indicators that will be measured by all participants. This program is considered successful if the total number of participants who provide positive responses to this activity is more than 75 percent. A positive response is an indicator that participant satisfaction is very good with the training activities provided and they are able to apply the understanding and skills gained in practice in preparing simple learning plans which are presented to colleagues in the training.

After the series of training activities is completed, participants are asked to reflect and provide feedback on the implementation of the service activities that have been carried out. This reflection stage is carried out to provide participants with the opportunity to provide reflection results on their learning experiences during service activities. Apart from that, this reflection also aims to identify achievements and shortcomings in the series of service activities, as well as formulate follow-up plans that can be implemented in subsequent training practices. At the reflection stage, participants are invited to assess in detail the entire training process they have undergone. This reflection involves several main aspects, including participants' understanding of the training material on differentiated learning, the practical skills they have acquired, and the relevance of the training material to their life context and future needs. Reflection and feedback activities can be seen clearly in Figure 3 below.



Figure 3. Participants reflect and provide feedback

At the end of the service activity, it was continued by giving a questionnaire that had been prepared by the service team and presented in the form of a questionnaire on Google Form to the training participants to be filled in according to the participant's experience. They provide assessments and evaluations of the overall implementation of activities. Service team Prepare a structured questionnaire covering several important aspects of training, including the quality of the material provided, the effectiveness of the service team's teaching

methods, the competence of facilitators, and the facilities and infrastructure provided in the training. The questionnaire was designed in the form of a Likert scale so that participants could provide a quantitative assessment of each aspect of the training. Apart from that, this will make it easier for the service team to process and analyze the data. By providing this questionnaire, the service team can obtain complete and accurate information regarding the implementation of training activities which will be used as material to evaluate the success of the program and input for overall activities. For the service team, this is very important data because it can make the quality of future service much better with constructive input from the training participants.

At the end, participants also provided input to the activity organizers for further improvements. The service team evaluates the extent to which the training objectives have been achieved and what impact this has had on participants' competence in understanding and designing differentiated learning. The results of this analysis are used to prepare reports and recommendations for future program development. Based on the results of reflection and feedback from training participants, the service team prepares follow-up plans to support participants in implementing differentiated learning. The results of the questionnaire showed that 93% of participants experienced increased understanding, 95% were motivated to implement differentiated learning and 100% of participants gave a positive response to this service activity. The results of the questionnaire analysis from participants can be seen in Figure 4 below:

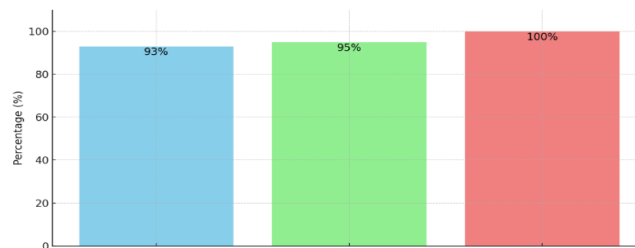


Figure 4. Results of Participant Questionnaire Analysis

#### 4 Discussion

Overall, community service activities have gone well. This service program aims to improve the abilities of prospective teacher students at Universiti Kebangsaan Malaysia through differentiated learning development training. At the beginning, the service team started with a preparatory stage involving partner institutions for coordination. This process provides great benefits for ensuring that technical activity plans

can be implemented properly to achieve the expected results. In this context, aspects of initial planning and coordination are the main factors for achieving success in service activities. Based on this description, it shows that the preparation stages carried out by the service team involving coordination with partner institutions have contributed to the success of the service program. This coordination is able to ensure that all parties have the same understanding regarding the objectives of the service activities carried out (Supriyadi dkk. 2023; Wiryanto dan Veronica 2024).

Preparing a detailed technical plan from the service team and partner institutions can facilitate the implementation of this service program. This is in line with the views of (Lukman dkk. 2023) which states that the success of a community service program is greatly influenced by the quality of planning and coordination carried out at the preparation stage. According to (Supono 2023), effective planning is the basis for achieving activity goals, because it has an impact on the direction of activities and helps in making better decisions. Another positive implication of the service team's ability to carry out detailed preparations is the creation of a service program that is comfortable for participants and achieves maximum results. With good preparation, you can minimize the risk of obstacles occurring during the implementation of service (Parapat dkk. 2024).

In the core training activity, the service team disseminated material explanations to participants consisting of prospective teachers at Universiti Kebangsaan Malaysia regarding differentiated learning. This material in detail consists of several topics including (a) diversity of students, (b) dimensions of diversity, (c) equality and justice in learning, (d) learning according to achievement or level of ability, (e) basic principles of differentiated learning, (f) differentiated learning strategies, and (g) assessment in differentiated learning. Participants were able to understand the material well, this was conveyed by participants during a joint reflection by saying that the presentation of the material by the service team was very easy to accept and understand. Apart from that, service material is very useful for equipping training participants in facilitating student diversity with the concept of differentiated learning, including discussing content, process and product differentiation (van Geel dkk. 2019; Gheysens dkk. 2022; JilardiDamavandi dkk. 2011).

The presentation of material by the service team is designed with a structured approach, so that it is easy for participants to understand. The use of simple language accompanied by concrete examples in explaining

the material is proven to help participants connect theory with practice. This is in line with the principles of andragogy proposed by (Hasibuan dkk. 2022; Yusri 2017) who explain that adult learning must be relevant to their life experiences and presented in a way that makes it easier for participants to understand the material. The participants' assessment of the service team regarding the delivery of the material was very good and useful by the participants because it provided new insights about how to improve the quality of learning in the classroom through providing varied content, processes and products. On the other hand, differentiated learning is one solution to overcome the challenges faced by teachers in teaching students with various backgrounds and student learning rates. According to (Amalia dkk. 2024; Dapa 2020) differentiation in learning really helps teachers adapt teaching according to student needs, so that it is hoped that it can increase engagement and learning outcomes.

In detail, the service material discusses content differentiation where the focus is on explaining how teachers provide diverse material for students based on their abilities, interests or learning styles. Process differentiation relates to the way teachers teach and how students process information that involves the use of various teaching strategies, such as group discussions, independent work, or the use of technology in learning. According to Vygotsky (1978) in an effective learning process teachers must consider students' zone of proximal development where they can learn better with the help of others (Payong 2020). By differentiating the learning process, teachers can facilitate students at various levels of understanding. Product differentiation material explains how teachers provide various choices that allow students to show what they learn through various forms of results or products. This gives students the opportunity to choose the way that best suits their strengths to express understanding (Gnyawali, Stewart, dan Grant 2005; Sitorus dkk. 2022).

The service team also provides assistance in preparing learning plans, this aims to strengthen participants' understanding in practical aspects. The assistance provided by the service team includes several practical aspects to help participants apply the understanding they have learned into real practice. This assistance is carried out through direct guidance and group discussions to provide students with the opportunity to design learning in accordance with the principles of differentiated learning. At the end of the session, participants are given the opportunity to present their overall work results (Parapat dkk. 2024). The service team provides specific feedback through direct guidance so that participants can convey

the learning plans they have created and get suggestions for improvement. Participants can identify the advantages and disadvantages of the designs they have developed with their friends, so that group discussion activities carried out by participants can provide them with the opportunity to share ideas and experiences while strengthening collaboration between participants (Hasibuan dkk. 2022).

The service team monitors and evaluates the implementation of the service to see the overall effectiveness of the program. This aims to ensure that the program runs according to plan and achieves the stated goals. The service team collected data and continued to carry out analysis and assessment of various aspects of program implementation that were already running. Monitoring is carried out continuously throughout the service activity process. This is in line with the view of (Wiryanto dan Veronica 2024) which states that to supervise the implementation of activities and ensure that all plans run according to schedule, it is necessary to monitor activities. To see the success of the activity in achieving the goals that have been set as a whole while measuring the extent to which participants understand the material presented, the service team distributes questionnaires to training participants.

Meanwhile, looking at practical skills is carried out through an assessment of participants' skills in preparing differentiated learning plans. Finally, to see participant satisfaction with the service program, a satisfaction survey was carried out which included the quality of the material, delivery methods and assistance provided (Utami dkk. 2023). Based on the results of the questionnaire analysis, it shows that there are several notes that refer to further program recommendations related to improving monitoring and evaluation aspects. Apart from that, in the future it is necessary to develop broader training materials because the learning aspect is not only related to activities in the classroom so that the service implementation time can be extended or added with broader and in-depth training materials.

## 5 Conclusion

Differentiated learning development training for prospective teachers at Universiti Kebangsaan Malaysia has been carried out smoothly. This training was conducted at Universiti Kebangsaan Malaysia on May, 28 2024 with the aim of developing abilities in developing differentiated learning. Participants are able to understand the training material well

and they are able to design differentiated learning to facilitate student diversity in a simple way. This service program is designed into several stages starting from preparation, socialization, mentoring and evaluation monitoring to determine the success of the service program. The material consists of several topics related to the development of differentiated learning which in detail includes material on (a) diversity of students, (b) dimensions of diversity, (c) equality and justice in learning, (d) learning according to achievement or level of ability, (e) basic principles of differentiated learning, (f) strategies for differentiated learning, and (g) assessment in differentiated learning. Service activities provide assistance to participants to prepare differentiated learning plans and present them to other participants in the class to get feedback. This service activity ended with participants filling out a questionnaire regarding their level of understanding of the training material. The results of the questionnaire showed that 93% of participants experienced increased understanding, 95% were motivated to implement differentiated learning and 100% of participants gave a positive response to service activities.

## 6 Acknowledgment

We, the service team, would like to express our deepest gratitude to the partner institution, namely Universiti Kebangsaan Malaysia, for being willing to collaborate with us to provide training to prospective teachers on differentiated learning. We hope that this training and mentoring activity can be useful for equipping participants in facilitating the diversity of student needs and characteristics. In addition, it is hoped that participants will continue to improve their understanding by strengthening collaboration and developing learning communities to support a good transformation process.

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