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THE POTENTIAL OF THE DISTAR LEARNING MODEL TO ENHANCE STUDENTS' COLLABORATION SKILLS

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Abstract

This study aims to develop a valid and practical learning model, namely the Distar Learning Model, to improve students' collaboration skills. This research is a type of Research and Development (R&D) using the ADDIE model (Analysis, Design, Development, Implementation, Evaluation), and was conducted in the odd semester of the 2024/2025 academic year at SMA Negeri 9 Gowa. The research subjects were 36 students of class XII MIPA 5. The validation results showed that the guidebook obtained a feasibility score of 87.16% (feasible for use), teaching materials 88.6% (very valid), learning modules 94.16% (very valid), and the Student Worksheet

(LKPD) obtained a score of 3.77 out of 4.00 (very valid). The practicality test showed that the model had an implementation success rate of 90.47%. These findings indicate that the Distar Learning Model is proven to be valid and practical, and has the potential to improve students' collaboration skills. This model is recommended for broader implementation to facilitate 21st-century learning that emphasizes collaboration and active student engagement.

Keywords: Learning Model, Collaboration Skills, 21st Century Learning, Distar Learning

Abstrak

Penelitian ini bertujuan untuk mengembangkan model pembelajaran yang valid dan praktis, yaitu Model Pembelajaran Distar, untuk meningkatkan keterampilan kolaborasi siswa. Penelitian ini merupakan jenis Penelitian dan Pengembangan (R&D) dengan menggunakan model ADDIE (Analisis, Desain, Pengembangan, Implementasi, Evaluasi), dan dilaksanakan pada semester ganjil tahun ajaran 2024/2025 di SMA Negeri 9 Gowa. Subjek penelitian adalah 36 siswa kelas XII MIPA 5. Hasil validasi menunjukkan bahwa buku panduan memperoleh skor kelayakan sebesar 87,16% (layak digunakan), bahan ajar 88,6% (sangat valid), modul pembelajaran 94,16% (sangat valid), dan Lembar Kerja Siswa (LKPD) memperoleh skor 3,77 dari 4,00 (sangat valid). Uji praktikalitas menunjukkan bahwa model memiliki tingkat keberhasilan implementasi sebesar 90,47%. Temuan ini menunjukkan bahwa Model Pembelajaran Distar terbukti valid dan praktis, serta berpotensi untuk meningkatkan keterampilan kolaborasi siswa. Model ini direkomendasikan untuk implementasi yang lebih luas guna memfasilitasi pembelajaran abad ke-21 yang menekankan kolaborasi dan keterlibatan aktif siswa.

Kata Kunci: Model Pembelajaran, Keterampilan Kolaborasi, Pembelajaran Abad ke-21, Pembelajaran Distar

INTRODUCTION

21st century education is currently an education that can create learning skills and innovation for students, using technology and information tools, and enabling the ability to work and survive using life skills (Kemdikbud, 2013). The 21st century is called the century of knowledge. The 21st century is marked by the rapid development of technology and information in all aspects of life, as a result, this century has experienced quite significant changes in various areas of life. The 21st century has very high demands to create quality human resources, these demands cause changes in the order of human life in the 21st century, so that humans in this century are required to have innovative and characteristic skills (Mardhiyah et al, 2021). Therefore, the learning system in the 21st century is actually no longer centered on educators (teacher-centered learning), but rather centered on students (student-centered learning). This aims to provide students with skills in thinking and learning skills in the 21st century, or what is known as "The 4C Skills" formulated by the Framework Partnership of 21st Century Skills, including: Communication, Collaboration, Critical Thinking and Problem Solving; and (4) Creative and Innovative (Nabilah, 2020).

Collaboration skills are one of the essential elements in 21st century learning, because they not only have an impact on improving academic results but also on the development of students' social skills. Collaboration skills are very important in 21st century education, increasing knowledge, social interaction, self-confidence, and motivation among students (Edu et al, 2023). According to Nugraha & Rahman (2017), collaboration in learning is a teaching method where colleagues correct each other. Collaboration is a place to greet each other and share knowledge. Research shows that through collaboration, students can actively participate, communicate, and work together effectively in teams to achieve common goals (Riaz & Din, 2023). In a collaborative learning environment, students are encouraged to actively participate, communicate, & interact using their peers, which in turn increases their ability to work in teams and adapt to various social situations (Ghavifekr, 2020).

Collaboration skills are also crucial in preparing students for the 21st century global workplace. In today's work environment, collaboration is essential as many tasks require team collaboration. Collaborative learning helps students share critical thinking skills, effective communication, & technological knowledge needed in the workplace (Cubero et al., 2018). In addition, collaboration in learning allows for unique intellectual and social synergies, which can increase student motivation and confidence (Sportivo et al, 2023). Overall, collaboration skills play a vital role in 21st century learning. Research shows that students who engage in collaborative learning tend to have better social and interaction skills (Ghavifekr, 2020).

Collaborative attitudes in educational units are one of the main focuses in today's education world (Dewi & Mailasari, 2020). The ability to work together is not only valuable as a skill, but also a long-term investment in forming individuals who are ready to face the dynamics and challenges of the future (Magdalena et al., 2020). Collaboration is not just a technical ability, but a life attitude that must be built from an early age. Therefore, schools/madrasas need to take strategic steps to create an environment that supports the development and strengthening of collaborative attitudes in each student. With this effort, it is hoped that not only will the quality of education improve, but also a generation of students will be created who are able to become active contributors in an interconnected global society (Ni'mah et al., 2023). Dewi, et al. (2020) stated that collaborative skills do involve the ability to exchange thoughts, ideas, and feelings between students at the same level. When students work together in collaboration, they have the opportunity to share knowledge, experiences, and understanding of the material being studied. This can increase students' learning motivation.

Collaboration is seen as the main key in creating an effective learning process, as expressed by Masruroh and Arif (2021). This competency is not only important in the context of education but also an essential element in the world of work. Collaboration skills guide students to work together by instilling values of tolerance and mutual respect in order to achieve common goals. In practice, each group member is expected to contribute in the form of ideas or thoughts that support the completion of tasks collectively. Moreover, the results of the collaboration achieved are the shared responsibility of all group members (Sari & Rochmiyati, 2023). Overall, the importance of collaboration skills in 21st century learning cannot be ignored. These skills are not only important for learning but also for solving life's problems. Therefore, a learning model that can empower students' collaboration skills is urgently needed to prepare them for future challenges (Ilma et al., 2021). Thus, there is an urgent need to develop a learning model that can foster these skills. Collaborative learning allows students and teachers to share knowledge and experiences, thereby

accelerating educational innovation. This collaboration not only improves learning outcomes but also strengthens the teaching team's identity as innovative learning designers.

The material in biology that is often debated not only in Indonesia but also in the world is about the theory of evolution, because it concerns the beliefs and lack of knowledge of teachers (Rahmatullah & Jumadi, 2020; Siani & Yarden, 2020). In addition, sub-studies of evolution such as genetic variation and adaptation of certain organisms to certain environments are crucial materials that are considered most useful, especially for students who want to pursue a career in conservation. Apart from the material on evolution, other materials in biology that are considered difficult by students are genetics, viruses and monera, cell transport, coordination and immunity systems, and memorizing Latin (Fauzi et al., 2021; Priyayi et al., 2018; Sari & Bare, 2018). It is further explained that the difficulties faced by students in learning this content are because it is abstract and complicated, so it can worsen students with low motivation and interest in learning.

Some ways that can be used to make it easier for students to understand difficult content are by integrating social issues into learning (Beatty et al., 2021). The biology learning process allows students to interact directly with concrete objects, meaningful phenomena, and develop scientific skills that are able to answer the demands of the global world in the future (Afif, Sunismi, & Alifiani, 2021; Syiba, Suprianto, Angreani, 2021). Based on the results of observations at SMA Negeri 9 Gowa, especially in the subject of biology for class XII, several problems were found regarding the lack of students' ability to collaborate. In the application of the cooperative learning model, student collaboration is still lacking. The low collaborative skills of students are due to students' lack of confidence where there is a sense of doubt in expressing their opinions. This makes it difficult for students to communicate their ideas. In addition, the fear of expressing opinions in front of the class is a factor that causes students to tend to be passive in the learning process.

As a result, many students choose to suppress their knowledge and responses because they are worried about the response from their learning environment. Often, in discussion activities, students tend to rely on each other, so that only a few individuals are actively working on the tasks given by the teacher. In addition, the lack of adaptation and familiarity between students also hinders the creation of effective collaboration. So that the low collaborative skills of students are one of the main challenges in realizing the demands of education in the 21st century. Therefore, learning is needed that is able to involve students actively and creatively to improve their collaboration skills. The latest innovations are needed to support the smooth learning process, especially in improving students' collaboration skills. One solution that can be applied is the use of interesting and fun learning models, so that they can support students' learning activities optimally. Based on the results of interviews with Biology teachers at SMA Negeri 9 Gowa, it was revealed that students prefer the Project Based Learning (PJBL) learning model.

The above is in line with Nata's view in Puspitasari, Rinanto, & Widoretno, (2019) that efforts that can be made to improve collaboration skills can be done by implementing learning models that help students collaborate. Collaboration skills are a form of social process that involves activities to achieve common goals. Activities that require cooperation between two or more people to achieve common goals include learning activities between teachers and students at school (Wahyuni, 2022). One way that a teacher can create an effective learning process is by choosing the right learning model. Learning will be effective when teachers have the ability to choose and use learning models. Learning models are important components in the classroom such

as helping students achieve learning goals, making students enthusiastic about learning (Khoerunnisa & Aqwal, 2020). In developing students' collaboration skills, a learning model is needed that not only makes it easier for students to understand the material, but can also train students to be able to work together. One learning model that fosters and trains collaboration skills is the cooperative learning model. Cooperative learning is different from other learning strategies (Yunus, 2023). To maximize the application of the learning model, a collaborative learning approach is used with the ADDIE model as an initial step in knowing the model applied.

Based on the problems explained above, the researcher conducted a learning model research with ADDIE which was later called the Distar Learning Model (Differentiated, Inclusive, STAD, and Peer Tutoring Approach). Innovation in collaboration-based learning models is very important to meet the needs of 21st century skills. By combining design thinking, technology, and collaboration, this learning model can improve students' innovative and collaborative abilities. So it is hoped that the development of this model can have an impact on students so that their collaboration skills can improve.

METHODS

This research is based on the theory and type of research and development. This research was conducted with the aim of obtaining results as a product of a learning model that has proven its effectiveness in its application. The research conducted using the ADDIE model. The research was conducted in the Odd Semester of the 2024/2025 Academic Year. The subjects of this study were 36 students of class XII MIPA 5 of SMA Negeri 9 Gowa. The research instruments and data collection techniques were carried out using expert validation sheets including the feasibility of model syntax, implementation of the learning model, observation of teacher activities, observation of student attitudes, assessment of collaboration questionnaire sheets. The data was analyzed to test the validity of the model in improving students' collaboration skills.

Data obtained through initial observations by interviewing subject teachers and distributing questionnaires to students related to problems in carrying out the learning process, especially on the learning model applied by teachers in the classroom. So that the findings at the research stage can be used as a guideline in the initial stage of designing a learning model which will later be developed according to the needs of students. After finding the weaknesses of students in the learning process, a learning model was designed, namely the Distar Learning Model. Then if the Distar Learning learning model has been completed, the next thing to do is a validity test carried out by a validator, in this case who has expertise in the field of learning models. After the prototype design of the Distar Learning learning model is valid for use, the design is tested to see its practicality. The following is a data analysis for the validity and practicality of the Distar Learning learning model.

Based on the results of the initial prototype validation of the Distar Learning model from experts, the average value of the values given by the validator is determined. Furthermore, the average value of the validity of the initial prototype is determined by referring to the following value intervals:

Table 1. Validity Criteria

Num.	Achievement level	Information
1	3,25 ≤N< 4,00	Very Valid
2	2,50 ≤N< 3,25	Quite Valid
3	1,75 ≤N< 2,5	Less Valid
4	1,00 ≤N< 1,75	Totally Invalid

(Source: Riduwan, 2009)

The initial prototype of the Distar Learning learning model is said to be practical if according to the practitioner's (teacher) assessment it can be easily implemented. Practitioner assessment data will be analyzed using the following descriptive percentage technique:

Table 2. Practicality Criteria

Num.	Achievement Level (%)	Information
1	81-100%	Very practical
2	60-80%	Practical
3	41-60%	Quite practical
4	21-40%	Less practical
5	<20%	Very impractical

(Source: Arikunto, 2014)

RESULTS AND DISCUSSION

Research result

Based on the results of the evaluation (analysis) and design, so that the development stage can be carried out, the Distar Learning learning model is a combination of several learning models, namely differentiation, STAD (Student Team Achievement Division), and peer tutors which are then modified to meet the collaboration aspects of students in the learning process in the classroom. Differentiated learning models are used to meet the needs of students who have different learning styles, interests, strengths and weaknesses, then STAD is used in dividing learning teams consisting of 4 to 5 students, the members of the group are divided by certain criteria heterogeneously, and the last is the peer tutoring method where students are given responsibility by the teacher to be able to explain learning materials to friends (tutees) who do not understand so that tutors can be more flexible in delivering materials according to learning objectives (Rosanti, 2018).

In general, the Distar Learning learning model has three learning stages which are then broken down into several smaller stages.

Table 3. Distar Learning Model Syntax

Work steps	Teacher Activities	Student Activities	Learning Theory
Differ entiation	The teacher divides students into 3 large groups. The large group consists of the fast-understanding group (category 9), the medium group (category 6), and the slow-understanding group (category 3). The teacher teaches the core material to the entire class, provides explanations, and gives students the opportunity to ask questions. Teachers use a variety of teaching approaches that activate students' various senses, such as visual, auditory, and kinesthetic, to enhance understanding. Teachers use technology that supports personalized learning, such as learning software or applications that provide a more interactive learning experience that is tailored to each student's abilities.	Students listen to the delivery of the material and students are given the opportunity to ask questions.	Behaviorist theory, teachers use various reinforcement techniques to motivate learners with different needs. Teori Multiple Intelligences (Multiple Intelligences), teachers use various approaches by offering various strategies and activities in which learning is assisted by technology. Adapted to the type of intelligence (for example, visual, auditory, and kinesthetic). The main objective of Humanistic Theory is that the teacher as a mediator is to help students develop themselves, namely to know themselves and realize the potential that exists within themselves. Constructivism Theory, teachers create an environment that allows students to explore and discover new concepts according to their learning style.

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Cooperative STAD and Inclusive Learning	The teacher divides students into small heterogeneous groups. Each large group team is merged into small groups consisting of 4-6 students who have diverse academic abilities from the three large groups (in terms of academic ability, gender, or background). Guru memantau dan memberikan bimbingan kepada kelompok yang membutuhkan bantuan	Students work together in their groups to understand the material, explain it to each other, and help each other complete questions or assignments.	Constructivism theory, learners build knowledge through interactions with peers. Where learners teach and learn from each other, strengthening their understanding. Learners' knowledge is built through experience and interaction. An inclusive environment encourages learners to learn from each other in diverse contexts in groups. Social learning theory, students learn from each other, which strengthens social and academic skills. Students learn to appreciate differences and work together, which strengthens social skills and empathy.

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Peer tutoring	The teacher encourages students to work in groups or pairs to teach each other or discuss the material. The teacher provides opportunities for students who have a fast level of understanding (category 9) to explain the material to their friends who need additional support.	Students from the quick-to-understand group (category 6) teach their friends about the material that has been explained previously using their own communication language.	Constructivism theory, learners actively construct their knowledge through interactions with others. In peer tutoring, learners who understand the material better can help their peers, strengthening the understanding of both parties. Social Learning Theory Students learn by watching and imitating how their peers explain concepts. Vygotsky's theory of the zone of proximal development (ZPD) students learn best with the help of others who are more competent. Peer tutoring allows students to collaborate and learn within their zone of proximal development, where they can achieve higher levels of understanding with peer guidance.

Learning Device Validation Results

Table 4. Validation Results of the Distar Learning Model Guidebook

Num.	Assessment Aspects	Validator 1	Validator 2	Average	Criteria
1	Format	3,71	3,50	3,61	Very valid
2	Contents	3,60	3,58	3,59	Very valid
3	Language	3	4	3,50	Very valid
General Assessment				3,56	Very valid

The validation test of the Distar Learning model guidebook has been conducted to test the feasibility of the Distar Learning model guidebook. The validation of the Distar Learning model guidebook uses a questionnaire so that the power obtained is data from the results of language experts and media experts. In this learning model, a learning model guidebook is needed as a guide for teachers to apply the learning model in the classroom. This Distar Learning model guidebook

is also validated for feasibility by expert validators in their fields before being given to subject teachers to be tested for practicality. The aspects assessed by the experts are the format of the guide, content and language contained in the guidebook. The results of the assessment from the validator regarding the Distar Learning model application guidebook are 3.56 or categorized as feasible to be applied.

Table 5. Results of Validation of Teaching Materials

Num.	Assessment Aspects	Validator 1	Validator 2	Average	Criteria
1	Format	3,70	3,68	3,69	Very valid
2	Contents	3,86	3,90	3,88	Very valid
3	Serving	3,78	4	3,89	Very valid
4	Component Completeness	3,79	3,67	3,73	
5	Language	4	3,80	3,90	Very valid
	General Assessment			3,82	Very valid

Researchers create teaching materials as additional learning resources for students to facilitate the implementation of the Distar Learning learning model which is considered to have the potential for students to continue to involve cooperation in groups. Researchers validate the feasibility of teaching materials by material experts, this validation was carried out on November 17, 2024. The aspects assessed are the feasibility of the content, presentation, completeness, components and language in the teaching materials. Based on the results of the material validation assessment of the creation of teaching materials, the results obtained were 3.82 and were included in the category of highly valid or very suitable for use without any revision.

Table 6. Results of Teaching Module Validation

Num.	Assessment Aspects	Validator 1	Validator 2	Average	Criteria
1	Teaching Module Format	3,78	4	3,89	Very valid
2	Material presented	3,90	3,67	3,78	Very valid
3	Serving model	4	3,89	3,95	Very valid
4	Evaluation	3,71	3,77	3,74	Very valid
5	Facilities and aids	3,52	3,79	3,65	Valid
6	Time	3,69	3,56	3,63	Very valid
7	Learning	3,56	3,54	3,55	Very valid
	General Assessment			3,74	Very valid

To implement the Distar Learning learning model, a teaching module is also needed to help teachers in implementing the learning syntax. Therefore, validation of the teaching module by a learning design expert is needed. This validation was carried out on November 17, 2024. The aspects assessed were the format of the teaching module, the material presented, the presentation model, assessment, facilities and aids, time and learning. Based on the results of the validation assessment of the teaching module, the percentage result was 3.74 and was included in the highly valid or very suitable category and there was no revision from the learning design expert.

Table 7. Validation Results of Student Worksheets

Num.	Assessment Aspects	Validator 1	Validator 2	Average	Criteria
1	Format	3,67	3,79	3,73	Very valid
2	Suitability of questions to material	3,50	3,80	3,65	Very valid
3	Language	3,96	3,89	3,92	Very valid
	General Assessment			3,77	Very valid

Researchers create and distribute LKPD to students to be worked on in groups as part of the syntax for developing the Distar Learning learning model. The LKPD that has been created is then validated to assess the feasibility of the product before being applied to students in class. This LKPD was validated by a media expert which was carried out on November 17, 2024, the assessment aspects were the format of the student worksheet, the suitability of the questions to the learning material, and the language used in the questions. Based on the assessment of the LKPD validation results, a value of 3.77 was obtained or categorized as highly valid and suitable for use without revision.

The results of the validation of the learning devices used in implementing the Distar Learning learning model, it can be said that the learning devices produced such as model guide books, teaching materials, and teaching modules and LKPD have been validated with highly valid results, with an average validity reaching 3.56 to 3.82. This shows that the learning devices can be used optimally by teachers to manage a more structured and interactive learning process.

Practicality Test Results

Table 8. Results of the Practicality Test of the Distar Learning Model

Num.	Assessment Aspects	Number of components	Components implemented	Component not executed	Percentage	Criteria
1	Model Success Indicators	21	19	2	90,47	Very valid

After the implementation of the Distar Learning model and the validation of the learning instruments, the next stage was to conduct a practicality test. This test was carried out in class XII MIPA 5 at SMA Negeri 9 Gowa. During the implementation, observations were also conducted to assess the extent to which each component of the model was executed. Out of a total of 21 model success indicator components, there were two components that were not optimally implemented. The first was the full use of interactive digital learning media. Although PowerPoint and video-based media had been prepared, technical issues with the classroom projector during several sessions hindered the full use of visual media. The second was the provision of direct feedback from the teacher to each group at the end of the lesson. Due to limited instructional time, the teacher was only able to provide general feedback to the class as a whole, rather than specific feedback to each group.

These technical constraints were not caused by weaknesses in the model design but were more related to the limitations of school facilities. This issue could be resolved in future implementations by ensuring equipment readiness in advance. The limited time also presented a challenge in delivering personalized feedback. Therefore, better time management and more flexible scheduling are needed to allow teachers to provide more targeted guidance to each group.

Although two components were not fully implemented, this did not significantly affect the effectiveness of the model in improving students' collaboration skills. This was evident in the active involvement of students in group discussions and the successful achievement of other model indicators. Thus, the Distar Learning model remains highly practical and shows strong potential for broader application in collaborative learning environments.

Discussion

This study reveals the importance of collaboration skills in the context of 21st century education, where collaboration not only contributes to academic outcomes but also to the development of students' social skills. The results of observations at SMA Negeri 9 Gowa showed that students had difficulty in collaboration, which was caused by a lack of self-confidence and fear of expressing opinions in front of the class. This is in line with the finding that many students tend to be passive in the learning process, which hinders effective interaction and collaboration. This is in line with Nisa et al., (2023), who said that many students have difficulty in collaborating due to a lack of effective interpersonal and communication skills, which are needed to work in groups.

The Distar Learning learning model is designed to address this issue with a more inclusive and collaborative approach. Through this model, learners are encouraged to actively participate in group discussions and share ideas, which in turn increases their self-confidence. This study uses the ADDIE method, which allows the development of a structured and adaptive learning model according to the needs of learners.

The results of the open module validation show that the Distar Learning model is highly valid and feasible to use. This shows that good learning design can support effective implementation in the classroom. In addition, observations of teacher activities and student attitudes during the implementation of this model showed a significant increase in student engagement and collaboration. However, challenges remain, especially in creating a learning environment that supports collaboration. Further efforts are needed to build familiarity between students and reduce fear in expressing opinions. Effective collaborative learning requires support from teachers to create a safe and inclusive atmosphere, where each student feels valued and heard.

Overall, this study confirms that the Distar Learning learning model has great potential to improve students' collaboration skills, which are very important in preparing them to face the challenges of the 21st century. By continuing to develop and implement this model, it is hoped that it can create a generation that is more prepared and able to collaborate in various contexts, both in the world of education and in the world of work.

Social system where in the learning process when the model is applied there is communication between students in one group, students with the teacher, and students with other groups in the class. The teacher acts as a facilitator and divides students into heterogeneous groups, students explain to each other to other members, and conclude their findings. The principle of reaction is to explain the teacher's approach in treating students. These principles include: 1.

Supporting students to work together with each other in solving and finding solutions to problems, 2. Creating a comfortable and conducive learning atmosphere for students, and 3. Providing new learning experiences as well as various learning resources so that the learning process can take place more deeply.

The supporting system is all the facilities, materials and tools needed to support the implementation of the applied learning model (Martawijaya, 2016). In the Distar Learning learning model, a learning module is needed that contains student LKPD and teaching materials as well as teaching materials in video and powerpoint displays. The instructional impact is the learning outcome that is achieved directly by directing students to the expected goals. The accompanying impact is another learning outcome produced by a learning process as a result of the creation of a learning atmosphere experienced directly by students without being directed directly by the teacher (Utomo, 2020). The instructional impact of the Distar Learning learning model is the creation of collaboration between students which is directly observed by the teacher during the learning process, while the accompanying impact is that students are active in the learning process and have a good attitude of cooperation and empathy towards classmates.

CONCLUSION

Based on the results of the practicality test of the Distar Learning model in the field, it shows that this model has the potential to improve students' collaboration skills, so it can be effectively applied in real classroom learning situations. Students demonstrate active involvement in discussions and group work, supporting each other to achieve common learning goals. Overall, the Distar Learning model has proven its potential to improve learning quality, particularly in collaboration and personalized learning, for class XII MIA 5 SMAN 9 Gowa students.

For further research, it is recommended to continue field trials at various levels of education and in different contexts to obtain more representative data on the effectiveness of the Distar Learning model on a wider scale. In addition, it is important to consider developing teacher training modules based on the Distar Learning model to support its implementation more broadly. The model also has the potential to be adapted to other subjects beyond Biology or in cross-curricular learning, which could enhance collaborative skills across disciplines and help students connect knowledge in a more integrative way.

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