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HYBRID LEARNING SYSTEM BASED ON PROJECT INTERNALIZED LOCAL WISDOM VALUES TO REALIZE PANCASILA STUDENT CHARACTER

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Abstrak

Revolusi Industry 4.0 dan Era Society 5.0 telah memberikan kemudahan dan tantangan pada sistem pendidikan. Melalui program Merdeka Belajar Kampus Merdeka (MBKM), upaya transformasi dilakukan untuk mencetak lulusan yang memiliki karakter profil mahasiswa Pancasila yang kompetitif secara global. Namun, hasil prasurvei pada mata kuliah media pembelajaran matematika mengungkap beberapa masalah, seperti rendahnya karakter profil mahasiswa Pancasila dalam bernalar kritis, kreatif, mandiri, dan gotong royong, serta kualitas penggunaan teknologi pembelajaran yang belum optimal. Untuk mengatasi permasalahan ini, dilakukan penelitian inovasi pembelajaran pada mata kuliah media pembelajaran matematika dengan tujuan mengembangkan desain sistem pembelajaran hibrid berbasis proyek yang valid dan praktis. Penelitian ini merupakan penelitian dan pengembangan (R&D) yang melibatkan mahasiswa dan dosen prodi pendidikan matematika di Universitas Muhammadiyah Metro. Tahapan penelitian mencakup analisis kurikulum, perancangan prototipe desain hibrid, penilaian oleh ahli, dan implementasi desain hibrid dalam pembelajaran. Hasil penelitian menunjukkan bahwa desain hybrid learning yang dikembangkan sangat valid dengan skor rata-rata 81,67% dan sangat praktis dengan skor rata-rata 85,5%. Desain ini menggabungkan metode tatap muka di kelas, kolaborasi virtual sinkron dan asinkron, serta pembelajaran mandiri. Desain ini dapat diterapkan dalam mata kuliah lain dengan penyesuaian terhadap tujuan pembelajaran, strategi aktivitas, dan waktu yang tersedia.

Kata kunci: Hybrid Learning; Kearifan Lokal; Project

Abstract

The Industrial Revolution 4.0 and the Society 5.0 Era have provided convenience and challenges to the education system. Through the Merdeka Belajar Kampus Merdeka (MBKM) program, transformation efforts are made to produce graduates who have the character profile of Pancasila students who are globally competitive. However, the results of the pre-survey on the mathematics learning media course revealed several problems, such as the low character profile of Pancasila students in critical, creative, independent, and mutual cooperation reasoning, as well as the quality of the use of learning technology that is not optimal. To overcome this problem, a learning innovation study was conducted on the mathematics learning media course

with the aim of developing a valid and practical project-based hybrid learning system design. This research is a research and development (R&D) involving students and lecturers of the mathematics education study program at Muhammadiyah Metro University. The research stages include curriculum analysis, hybrid design prototype design, expert assessment, and implementation of hybrid design in learning. The results of the study showed that the hybrid learning design developed was very valid with an average score of 81.67% and very practical with an average score of 85.5%. This design combines face-to-face classroom methods, synchronous and asynchronous virtual collaboration, and self-paced learning. This design can be applied to other courses with adjustments to learning objectives, activity strategies, and available time.

Keywords: Hybrid Learning; Local Wisdom; Project Keywords: Hybrid Learning; Local Wisdom; Project

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INTRODUCTION

The Era of Society 5.0 brings significant impacts to the world of education by integrating advanced technology into the learning process. Education is no longer limited to physical classrooms but has evolved into flexible digital learning. Teachers act as facilitators, while students are encouraged to be active, creative, and independent in seeking information and solving problems. The curriculum is aimed at developing 21st-century competencies such as critical thinking, collaboration, and digital literacy. Thus, the era of Society 5.0 encourages the creation of a more adaptive, inclusive, and future-oriented education system. Muhammadiyah University Metro (UM Metro) is adaptive in facing the challenges of the 4.0 industrial revolution and the 5.0 society era through the enhancement of modern learning systems, namely SPADA e-learning, since 2018. The presence of SPADA does not mean that face-to-face learning is eliminated, but the combination of SPADA with face-to-face learning (hybrid learning) makes it easier for students to access education. Hybrid learning provides opportunities for various characteristics of students to learn independently, sustainably, and lifelong (Gultom

et al., 2022). This learning requires a high level of independence. Therefore, the design must refer to constructive learning by presenting real problems and supported by multimedia.

Lecturers play a role in developing innovative, adaptive, and collaborative learning according to the potential and needs of students. Research (Amalia & Alfiansyah, 2022) shows that project-based learning can shape the Pancasila profile character with three constructivist principles: context specificity, student involvement, social interaction, and sharing (Evanita & Afdal, 2021). The contribution of the project-based approach is to provide a more active, contextual, and meaningful learning experience. The project-based approach encourages students to learn through direct involvement in relevant real-world projects, thereby enhancing critical thinking, collaboration, creativity, and problem-solving skills. Thus, this approach not only strengthens conceptual understanding but also prepares students to face real-world challenges. The characteristics of this learning are student-centered, confronting students with real problems, working on projects to find solutions, and demonstrating their work results. The implementation of projects trains students to interact with each other and with nature, which will enhance their environmental awareness (Tanjung et al., 2022) as well as their religious and honest character (Sarwendah, 2022). Additionally, students adapt to cultures, foster a sense of appreciation, and create new cultures that do not conflict with Indonesian culture (Widiyanti et al., 2022). Group projects train collaboration, communication, cooperation, and socialization as the character of mutual assistance. Students are given the active responsibility to search for, process, analyze, evaluate, and apply information to find solutions to problems (Rahmawati & Anwar, 2020). Project activities are capable of shaping character in accordance with the Pancasila student profile.

The results of the pre-survey of the mathematics learning media course obtained the character of Pancasila students is still in the low category of independent, mutual, critical and creative dimensions. The implementation of

project lectures with hybrid learning through SPADA. However, the project has not met the criteria for eligibility for substance and construction, teaching materials and assessments are not yet diverse, the use of SPADA is limited to giving and collecting assignments, collaborative virtual synchronous/asynchronous activities have not been implemented. The implementation of project-based hybrid learning has not provided an optimal impact on student character in the aspects of critical, creative, independent and mutual cooperation reasoning. The mathematics learning media course aims to equip students with the skills to design, develop, and utilize various media to teach mathematics effectively. In the digital era, hybrid learning design is a very relevant approach because it combines the advantages of face-to-face learning and online learning. Hybrid learning design in mathematics learning media courses provides many benefits, ranging from time flexibility, utilization of technology, improving digital skills, to a more collaborative and interactive learning experience. With this approach, students not only understand the theory, but also practice and develop innovative learning media, which can be used in teaching mathematics at various levels of education. Innovative learning media should be contextual so that they are effectively used in learning. In achieving the objectives of the mathematics learning media course, one of them is with a project.

Research (Kahfi, 2022) indicates that the implementation of the Pancasila profile is less than optimal due to limitations in substance, technology, and interest. Projects should be contextual and relevant to needs, issues, and culture (Safitri et al., 2022). Local culture internalized in learning will shape character (Wibowo et al., 2020). Local wisdom as a source of learning provides meaningful experiences in understanding the environment (Setiawan & Mulyati, 2020). Integration of local wisdom in mathematics learning contributes to improving conceptual understanding and building connections between science and everyday life. In the era of globalization and digitalization, education faces the challenge of remaining relevant to the local context while also being able to compete on the global stage. Amid the homogenization of culture due to technology and the flow of information,

there is an urgent need to preserve local identity as a cultural strength and national character. Project-based education that highlights local wisdom has become an important strategy to address this challenge. This approach not only enriches the learning process but also serves as a bridge between modern knowledge and meaningful traditional values. The main contributions of integrating local wisdom in mathematics learning include improving conceptual understanding, fostering appreciation for local culture, increasing student motivation and participation, and developing critical and creative thinking skills and preparing students to apply them in real contexts. Local wisdom such as traditional weaving patterns, batik patterns, traditional house buildings, traditional calendar calculations, can be used to explain mathematical concepts such as geometry, proportions, and number patterns. This approach allows students to understand mathematics in the context of their culture, so that the concepts taught become more relevant and easier to understand. By implementing this approach, mathematics learning not only becomes more meaningful, but also plays a role in preserving culture and developing education based on local wisdom. The project that internalizes local wisdom directly introduces students to local culture as a national identity (Pernantah et al., 2022), enabling them to face the currents of globalization towards modernity (Asrial et al., 2022; Pratiwi et al., 2021; Sari et al., 2022). In addition, a combination of technology is needed in designing the project. The presentation of learning content through digital technology has a significant impact on learning (Hossein-Mohand et al., 2021; Rahmawati et al., 2022). Furthermore, (Gultom et al., 2022) hybrid learning requires a method of material delivery. Hybrid learning with a real-world problem approach has a positive impact on attitudes, motivation, and independence (Darma et al., 2019).

Based on the results of the preliminary survey and previous studies, this research is necessary to design a project-based hybrid learning system that integrates local wisdom values in order to shape Pancasila character. This system is developed through the SPADA UM Metro platform in response to the dynamics

of learning technology and the need for flexible access for students with diverse characteristics. In addition, this research also aims to support the achievement of the Key Performance Indicator or IKU 7 of higher education institutions, namely the effective implementation of project-based learning.

METHOD

The research and development (R&D) approach is used in this study because it aims to produce a learning product in the form of a hybrid learning system design based on projects integrated with local wisdom values. The main objective of this approach is to systematically develop and test the effectiveness of the product through structured stages, starting from needs analysis and design to development, limited testing, and refinement. The reason for using the R&D approach is based on the characteristics of research that is oriented towards practical innovation in the context of education, as well as the need to produce solutions that are applicable and can be directly implemented in the learning process. Moreover, this approach allows for theoretical and empirical validation of the developed learning design, ensuring that the final product has a strong scientific foundation and high relevance to field needs. The purpose of the research is to develop a hybrid learning system design based on projects that internalize local wisdom values to realize the Pancasila student profile character in Mathematics Education students. The subjects of the research are 20 students and 3 mathematics education lecturers. Students evaluate the practicality and effectiveness of the product, and lecturers assess the validity of the product. The data collection technique involves expert validation using questionnaires, observations, and interviews. The research instruments used are questionnaires, observations, and interviews. The development model used is the model (Plomp & Nieveen, 2013), which consists of 4 stages: preliminary research, prototyping, assessment, and implementation. The selection of these stages is based on the need to produce development products that are systematically tested and relevant to their context of use. Preliminary research (initial research) is the pre-survey stage of the study to identify gaps in learning. Activities conducted

include determining the curriculum review, learning objectives, analysis of learning outcomes (CPL), infrastructure readiness, and student character surveys in accordance with the Pancasila profile, analysis of the implementation of learning both from the perspective of students and educators as well as the availability of learning resources, determining strategies to solve problems, and preparing a program plan.

Prototyping Phase (the prototyping stage) is the stage of designing learning designs to address gaps, preparing instruments such as tests, questionnaires, observation sheets, and interviews, as well as preparing additional supporting documents. Next, the Assessment Phase is a semi-summative evaluation stage to determine whether the designed program meets the expectations of the users, namely students and lecturers. At this stage, expert validation is conducted by 3 mathematics education experts. Finally, the Implementation Phase, which is the use of the developed product in teaching. This activity is called field testing, which involves trials in learning within the mathematics education study program with respondents being students and lecturers.

RESULT AND DISCUSSION

The design of a project-based hybrid learning system that internalizes local wisdom is developed through the Plomp model development stages, which consist of 4 stages: preliminary research, prototyping, assessment, and implementation. The development stages that have been carried out are as follows:

1. Preliminary Research.

At this stage, an analysis of learning needs is carried out, both in terms of curriculum, learning outcomes of mathematics learning media courses, technological infrastructure, and the readiness of lecturers and students in adopting hybrid learning. The first activity is to analyze the study program curriculum, the results obtained are that the mathematics learning media course supports the graduate profile, namely educators, developers, and edupreneurs. This shows that the mathematics learning media course is very important in supporting the

realization of the graduate profile. Furthermore, an analysis of the graduate learning outcomes (CPL) of the study program assigned to the mathematics learning media course is carried out to determine the objectives that must be achieved by the course. The results of the observation obtained that the CPL of the media course consists of CPL aspects of attitude, knowledge, special skills and general skills. The CPL includes: being able to demonstrate an attitude of devotion to God Almighty and being able to demonstrate a religious attitude (S1), being able to demonstrate an attitude of responsibility for work in their field of expertise independently (S9), being able to master the pedagogical-didactic concept of mathematics to carry out learning in elementary and secondary education that is oriented towards life skills (P1), being able to apply logical, critical, systematic, and innovative thinking in the context of developing or implementing science and technology that pays attention to and applies humanities values in accordance with their field of expertise (KU1), being able to plan, implement, and evaluate mathematics learning innovatively by applying the pedagogical-didactic concept of mathematics and mathematical science and utilizing various learning resources and science and technology that are oriented towards life skills (KK1), being able to use or develop IT applications in education and similar fields (KK10). Based on the CPL that is imposed, it shows that graduates are expected to have a Pancasila profile character. While the description of the learning media course that has been set is a mandatory course in the field of mathematics learning studies that discusses in depth the concept, function and type of media in the mathematics learning process, selection techniques, design, development and strategy for using and evaluating mathematics learning media according to information technology innovations. This means that at the end of media learning, students must be able to create designs and products for learning media in the form of real or virtual teaching aids (based on ICT) to teach mathematical concepts.

Next, the second step is to analyze the character possessed by the students. Based on the questionnaire and tests, the results show that the aspects of the

Pancasila student profile that need improvement are independence (50%), cooperation (60%), critical thinking (35%), and creativity (40%). Strengthening the character of the Pancasila Student Profile among university students is a strategic effort in preparing a generation capable of facing the challenges of the 21st century, both at the national and global levels. The aspect of independence is very important because it encourages students to take responsibility for their learning process, to be able to take initiative, and to be resilient in facing problems. The character of cooperation is needed in an increasingly collaborative world, where success is not only determined by individual ability but also by the skill of working together across disciplines and cultures. The ability to think critically becomes crucial in filtering information, analyzing problems objectively, and making rational, data-driven decisions. Meanwhile, creative character is needed to drive innovation, think outside the box, and create solutions that are adaptive to changing times. These four aspects complement each other and serve as the main foundation in realizing graduates who are not only academically competent but also possess strong character in accordance with the values of Pancasila.

The third step is to analyze the implementation of the mathematics learning media course. The interview results indicated that the lectures were conducted in 16 sessions with the following details: sessions 1-6 involved the delivery of material in person, sessions 7-10 involved the assignment of projects to create digital-based mathematics learning media, session 11 involved the presentation of product results, sessions 12-15 involved the assignment of projects to create non-digital mathematics learning media, and session 16 involved the presentation of product results. The challenges experienced in the learning process include: the learning was not maximally designed on SPADA, the use of SPADA as an online learning medium was limited to the submission and collection of assignments, synchronous/asynchronous virtual collaborative activities were not optimally implemented, many features on SPADA were not utilized, student activities during project implementation were not monitored or reported weekly, project devices did

not meet feasibility criteria in terms of substance and construction, such as the unavailability of easy-to-use project guides/modules, and the presentation of learning resources and assessments was not diverse. This situation is what causes several aspects of the Pancasila student profile to remain low. Therefore, there is a need for a redesign of project-based learning through SPADA.

Next, a literature review of previous research was conducted to determine strategies for improving the learning design that meets the needs of media courses. The research findings (Andiopenta & Aripudin, 2021; Helsa et al., 2022) indicate that hybrid learning is effective in the higher education learning process, as it can enhance student learning independence, flexibility in implementation and access to learning resources, greater exploration of concepts, both direct and indirect feedback, and more complex and diverse learning activities. Furthermore, research (Pernantah et al., 2022) shows that project-based learning integrated with local wisdom can engage students in constructive investigations, thereby fostering responsibility, cooperation, and developing self-competence as well as character based on local wisdom values. The products produced can serve as tangible manifestations that students can undertake as efforts to preserve the local wisdom of the region. Based on the review of previous research findings and the situation on the ground, the strategy to be implemented is designing a hybrid learning system based on projects that internalize local wisdom values in the mathematics learning media course.

2. Prototyping Phase

This stage is the design phase of hybrid learning based on projects that internalize local wisdom values to shape the Pancasila student profile character in mathematics education students. At this stage, a hybrid learning design is developed. Hybrid learning designed by combining face-to-face and online learning. The combination of face-to-face learning activities and online learning so that they can strengthen, complement, and support each other (Permana, 2022). The determination of the combination of online and offline learning is based on the

learning outcomes of the course derived from the CPL, project implementation activities, and time. The implementation of learning is designed using the SPADA UM Metro learning management system (LMS). The designed hybrid learning includes four learning methods, namely: (1) face-to-face interaction in the classroom or laboratory between lecturers and students; (2) synchronous virtual collaboration, which is direct online learning through SPADA UM Metro using features like Zoom Meeting; (3) asynchronous virtual collaboration, which is indirect online learning through discussion forums and feedback on SPADA UM Metro; and (4) self-paced asynchronous, which is independent learning by students through modules, links, assignments, and worksheets provided in various SPADA UM Metro features. The display of activities at SPADA UM Metro can be seen in Figure 1.

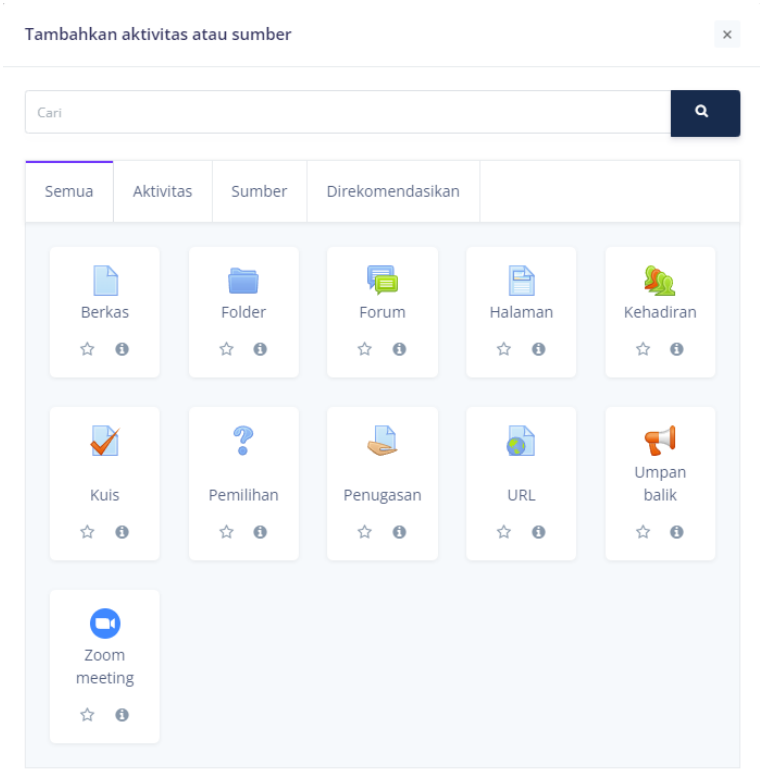

Figure 1. Activities at SPADA

The four methods were alternated in 16 meetings. The hybrid learning design can be seen in the following Table 1:

Table 1. Hybrid Learning Design

No.	Learning Mode	Meeting Session
1	Face-to-Face (class/laboratory)	I, IV, XIII, XIV, XIV, XVI
2	Synchronous virtual collaboration at SPADA UM Metro	II, III, VIII.
3	Asynchronous virtual collaboration at SPADA UM Metro	V, VI, VII, IX, X, XI, XII, XIII, XIV, XIV, XVI
4	Self Face Asynchronous	I, II, III, IV, V, VI, VII, VIII, IX, X, XI, XII.

Learning is conducted in 16 sessions. In the first meeting, it was conducted face-to-face for the course contract activities, which included explanations of the course implementation, both learning activities and assignments that students must complete. In meetings 2-12, the project implementation is conducted online, whether synchronous, asynchronous, or self-paced through SPADA UM Metro. The project carried out by the students is designed to produce mathematics learning media that integrates local wisdom. The project consists of both real and virtual teaching aids that incorporate elements of the local culture surrounding the students, enabling them to develop creativity and gain meaningful experiences. This is in line with (Setiawan & Mulyati, 2020; Sulistiawati et al., 2022; Wibowo et al., 2020) integrated local wisdom projects are able to instill character. The integration of local wisdom in mathematics learning aims to link mathematical concepts with the culture and daily life of the Lampung people. Examples of local wisdom that can be used in understanding mathematical concepts are presented in table 2.

Table 2. Examples of Local Wisdom of Lampung

No	Local Wisdom	Mathematical Concept
1	Lampung woven mats	Geometry transformation
2	Lampung tapis motifs	number patterns, similarity Number patterns and sequences, Geometry
3	Lampung traditional house	Plane and space
4	Lampung script	Numbers
5	Lampung agricultural land	Measurement, scale and mapping

In the Mathematics Learning Media course, the project given to students aims to develop skills in designing, developing, and evaluating innovative and effective learning media. The learning media project activities designed are presented in Table 3.

Table 3. Student Project Stages

Project Stages	Activity	Output
Identification and Analysis of Needs: Understanding learning needs and determining the mathematical concepts to be taught using media.	- Students prepare pre-survey instruments at school. - Students conduct a pre-survey on mathematics learning problems at school. - Students conduct a needs analysis related to learning media, curriculum analysis and analysis of student characteristics at school. - Students determine integrated local wisdom learning media that are in accordance with school needs	- Pre-survey instrument - Results of needs analysis

Designing learning media: Designing the structure and content of learning media that are appropriate to the identified needs.	- Students determine the type of media (virtual/real). - Students determine the local wisdom values integrated in presenting mathematical concepts. - Compiling an initial prototype of learning media. - Compiling validation instruments and practical tests	- Initial prototype of learning media. - Validation instrument and practicality test.
Developing learning media: Realizing media designs into products that can be used in learning.	- Conduct media validation. - Conduct validation result analysis	Valid local wisdom integrated learning media.
Testing learning media: Applying media in learning scenarios and evaluating its effectiveness.	- Conducting media practicality tests. - Conducting practicality test analysis	Integrated learning media with valid and practical local wisdom
Reporting and Documentation: Recording the entire project process and preparing reports.	- Students prepare project reports and guidelines for using the media (products) produced. - Students document how to use the media. - Students present the results of the project in class	- Project report. - Product usage demonstration video (media). - Product usage guide (media)

3. Assesment Phase

The assessment stage is a semi-summative evaluation phase of the hybrid learning design to conclude whether the learning design meets the needs of students and lecturers. Validation is a key step in the product development process because

it serves to ensure that the developed product aligns with the goals, user needs, and established quality standards. In the context of research and development in the field of education, validation is conducted to assess the validity of the content, design, and feasibility of implementation of educational products, both by subject matter experts and instructional design experts. Validation serves as an important basis for making revisions and improvements before the product undergoes further testing, thereby minimizing errors, enhancing effectiveness, and ensuring the product's relevance to the context of use. Thus, validation not only becomes a technical stage but also a scientific foundation that ensures the product can truly provide maximum benefits to the end users. This activity involves expert judgment or expert validation testing of draft prototype I, with learning expert respondents. The expert test was conducted using a validation assessment questionnaire to review the draft prototype I. The results of the expert review can be seen in Table 2.

Table 4. Expert Validation Results

Source	Skor (%)	Category
Validator 1	82	Very Valid
Validator 2	78	Valid
Validator 3	85	Very Valid
Average	81.67	Very Valid

The results of the expert validation obtained an average score of 81.67%. This means that the hybrid learning design falls into the very valid category. Some validator inputs include the need to maximize the use of SPADA features so that students do not get bored, and the need to use online resources outside of SPADA UM. Metro as an alternative in case of issues, attention needs to be paid to the allocation of time according to the weight of each activity. The validator concluded that the learning design can be used with minor revisions. Next, revisions were made to the draft prototype I by maximizing the use of features that align with the achievement of CPL, adding online facilities such as email/WhatsApp group/IG/Telegram in asynchronous activities, and rechecking the allocation of

time by considering the CPL weight assigned to each activity. The result of the revision is the draft prototype II, which can be tested in the learning process.

4. Implementation Phase

The implementation stage is the application of the developed product in learning, conducted through field trials in the Mathematics Education Study Program involving lecturers and students as respondents.This trial uses the draft prototype II from the assessment stage and is conducted on a small group scale to directly evaluate the product's effectiveness. The small group trial was conducted using a questionnaire to review the product, namely draft prototype II. The test results are presented in Table 3.

Table 5. Product Test Results

Subject	Average (%)	Category
Student	88	Very Practical
Lecture	83	Very Practical
Average	85.5	Very Practical

Field test results show that the developed design is very practical for use in learning, with an average score of 85.5%. This means that the hybrid learning design is easy to implement and provides many benefits for students and lecturers. This is because combining online and offline focuses on the process of achieving the course's CPL. In line with (Helsa et al., 2022), the concept of hybrid learning is not merely a simple mix of online and offline classes, but rather this learning focuses more on the process of maximizing the achievement of learning objectives by applying technology used to align with learning, time, and participants.

Based on the development stages that have been carried out, the hybrid learning design is composed of 37.5% face-to-face learning and 62.5% online learning, which consists of synchronous and asynchronous components. This is in line with the research findings (Purwantiningsih & Mala, 2021) of a 35% face-to-face and 65% online composition. In general, the valid and practical project-based hybrid learning design can be presented in Figure 2.

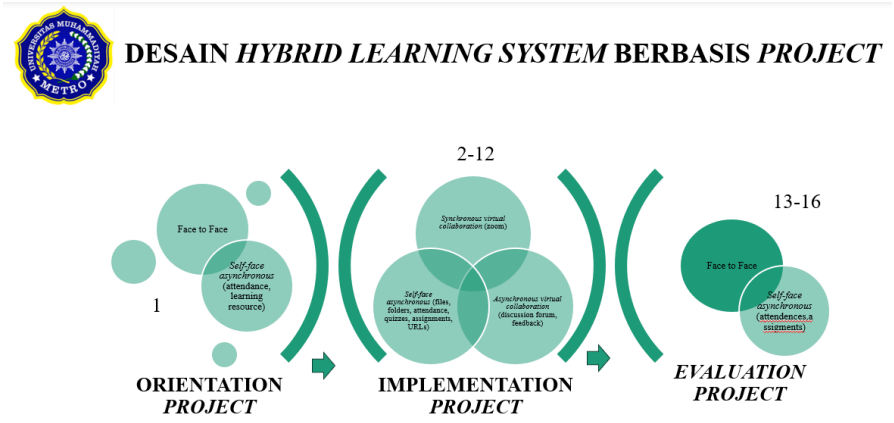

Figure 2. Hybrid Learning Design

The project-based hybrid learning design is in line with the broader goals of mathematics education, namely understanding concepts in depth, developing problem-solving skills, critical thinking, creativity, mathematical communication, preparing students to face the digital era, and encouraging independent learning. With a combination of online and face-to-face learning, students gain a richer, more flexible, and more relevant learning experience to future needs. The Hybrid Learning approach not only improves academic competence but also prepares students to apply the values of the Pancasila Student Profile in the real world. With a combination of online and offline learning, students can become independent, creative, critical thinkers, collaborative individuals, and have a global perspective based on moral and religious values.

CONCLUSION

Based on the research results, it can be concluded that the developed hybrid learning design is declared very valid (81.67%) and very practical (85.5%). Hybrid learning is designed with a combination of online and offline methods, consisting of four approaches: face-to-face in the classroom, synchronous virtual collaboration, asynchronous virtual collaboration, and self-paced asynchronous. Further research that needs to be done is the effectiveness of implementing hybrid learning based on integrated local wisdom projects on a wider scale. In addition, it

is also necessary to develop learning resources to support the implementation of hybrid learning such as learning videos.

REFERENCES

Amalia, S. S., & Alfiansyah, I. (2022). Model Pembelajaran Berbasis Proyek Dalam Mewujudkan Profil Pelajar Pancasila di Madrasah Ibtidaiyah. *Jurnal Al-Fatih*, *5*(2), 239–254.

Andiopenta, A., & Aripudin, A. (2021). Pengembanagan Model Pembelajaran Sosiolinguistik Berbasis Hybrid Learning melalui Borg And Gall Model pada Mahasiswwa Prodi Pendidikan Bahasa dan Sastra Indonesia Fkip Universitas Jambi 2019/2020. *Jurnal Inovasi Penelitian*, *1*(9), 2011–2018. https://doi.org/https://doi.org/10.47492/jip.v1i9.395

Asrial, A., Syahrial, S., Kurniawan, D. A., Alirmansyah, A., Aufa, Z., Yulistranti, A. E., Oktavianto, A. W., & Endari, S. B. (2022). Diseminasi Modul Elektronik Berbasis Kearifan Lokal Balumbo Biduk Pada Sekolah Dasar Binaan. *ABDI MOESTOPO: Jurnal Pengabdian Pada Masyarakat*, *5*(2), 244–252. https://doi.org/https://doi.org/10.32509/abdimoestopo.v5i2.2239

Darma, I. K., Karma, I. G. M., & Santiana, I. M. A. (2019). The Development of Blended Learning Model in Applied Mathematics by Using LMS Schoology: Requirement Analysis Stage. *International Research Journal of Engineering, IT and Scientific Research*, *5*(6), 33–45. https://doi.org/https://doi.org/10.21744/irjeis.v5n6.798

Evanita, S., & Afdal, Z. (2021). Electronic Project Based Learning a Literature Review. *Seventh Padang International Conference On Economics Education, Economics, Business and Management, Accounting and Entrepreneurship (PICEEBA 2021)*, 247–252. https://doi.org/10.2991/aebmr.k.211117.064

Gultom, J. R., Sundara, D., & Fatwara, M. D. (2022). Pembelajaran hybrid learning model sebagai strategi optimalisasi sistem pembelajaran di era pandemi covid-19 pada perguruan tinggi di Jakarta. *Mediastima*, *28*(1), 11–22. https://doi.org/https://doi.org/10.55122/mediastima.v28i1.385

Helsa, Y., Marasabessy, R., Juandi, D., & Turmudi, T. (2022). Penerapan Hybrid Learning di Perguruan Tinggi Indonesia: Literatur Review. *Jurnal Cendekia: Jurnal Pendidikan Matematika*, *7*(1), 139–162. https://doi.org/I: https://doi.org/10.31004/cendekia.v7i1.1910

Hossein-Mohand, H., Trujillo-Torres, J.-M., Gómez-García, M., Hossein-Mohand, H., & Campos-Soto, A. (2021). Analysis of the use and integration of the flipped learning

model, project-based learning, and gamification methodologies by secondary school mathematics teachers. *Sustainability*, *13*(5), 2606. https://doi.org/https://doi.org/10.3390/su13052606

Kahfi, A. (2022). Implementasi profil pelajar Pancasila dan Implikasinya terhadap karakter siswa di sekolah. *DIRASAH: Jurnal Pemikiran Dan Pendidikan Dasar Islam*, *5*(2), 138–151. https://doi.org/10.51476/dirasah.v5i2.402

Permana, N. S. (2022). Mendesain Hybrid Learning Dengan Model Pengembangan Addie untuk Pelajaran Pendidikan Agama. *JPAK: Jurnal Pendidikan Agama Katolik*, *22*(1), 105–115. https://doi.org/https://doi.org/10.34150/jpak.v22i1.381

Pernantah, P. S., Khadijah, K., Hardian, M., & Syafiq, A. (2022). Desain Pembelajaran Project Based Terintegrasi Kearifan Lokal Pada Mata Kuliah Pendidikan IPS. *Prosiding Seminar Nasional Pendidikan*, *4*, 191–203.

Plomp, T., & Nieveen, N. (2013). Educational Design Research. Part A. An Introduction. SLO. *Netherlands Institute for Curriculum Development*.

Pratiwi, D. R., Purnomo, E., Wahyudi, A. B., & Saifudin, M. F. (2021). Menggali nilai karakter dalam ungkapan hikmah di sekolah dasar se-Karesidenan Surakarta. *Jurnal Fundadikdas (Fundamental Pendidikan Dasar)*, *4*(3), 241–255. https://doi.org/10.12928/fundadikdas.v4i3.4795

Purwantiningsih, B., & Mala, A. (2021). Komparasi Komponen Model Hybrid Learning dalam Mata Kuliah Eksakta di PGMI Unsuri Surabaya. *Journal of Art and Science in Primary Education*, *1*(2), 141–160. https://doi.org/10.37680/basica.v1i2.1103

Rahmawati, D., & Anwar, R. B. (2020). Translation of mathematical representation: characteristics of verbal representation unpacking. *Journal of Education and Learning (EduLearn)*, *14*(2), 162–167. https://doi.org/https://doi.org/10.11591/edulearn.v14i2.9538

Rahmawati, D., Vahlia, I., & Yunarti, T. (2022). Validity Analysis of Development of Socrates-Based Linear Aljebra E-Modules. *Education Quarterly Reviews*, *5*(2). https://doi.org/10.31014/aior.1993.05.02.495

Safitri, A., Wulandari, D., & Herlambang, Y. T. (2022). Proyek Penguatan Profil Pelajar Pancasila: Sebuah Orientasi Baru Pendidikan dalam Meningkatkan Karakter Siswa Indonesia. *Jurnal Basicedu*, *6*(4), 7076–7086. https://doi.org/https://doi.org/10.31004/basicedu.v6i4.3274

Sari, Z. A. A., Nurasiah, I., Lyesmaya, D., Nasihin, N., & Hasanudin, H. (2022). Wayang sukuraga: Media pengembangan karakter menuju profil pelajar pancasila. *Jurnal*

Basicedu, *6*(3), 3526–3535. https://doi.org/https://doi.org/10.31004/basicedu.v6i3.2698

Sarwendah, A. P. (2022). Analisis Nilai Karakter dalam Pelaksanaan Pembelajaran Tematik Berbasis Proyek Pada Siswa Kelas 1 SDLB Tunarungu di SDLB Negeri Balikpapan. *Jurnal Pendidikan Karakter*, *13*(1).

Setiawan, I., & Mulyati, S. (2020). Pembelajaran IPS berbasis kearifan lokal. *Jurnal Ilmiah Pendidikan Dasar*, *7*(2), 121–133. https://doi.org/http://dx.doi.org/10.30659/pendas.7.2.121-133

Sulistiawati, A., Khawani, A., Yulianti, J., Kamaludin, A., & Munip, A. (2022). Implementasi profil pelajar Pancasila melalui proyek bermuatan kearifan lokal di SD Negeri Trayu. *Jurnal Fundadikdas (Fundamental Pendidikan Dasar)*, *5*(3), 195–208. https://doi.org/10.12928/fundadikdas.v5i3.7082

Tanjung, R., Dalimunthe, E. M., Ramadhini, F., & Sari, D. M. (2022). Penerapan Model Pembelajaran Berbasis Proyek Untuk Meningkatkan Kepedulian Siswa Terhadap Lingkungan Pada Pembelajaran IPS Kelas IV B MI Model Panyabungan. *ITTIHAD*, *5*(1).

Wibowo, B. P., Wulandari, T., & Setiawan, J. (2020). Character education values as reflected in KH Gholib struggles of defending Indonesian independence in Lampung. *International Journal of Learning and Development*, *10*(4), 22–41. https://doi.org/10.5296/ijld.v10i4.17608

Widiyanti, A., Ernawati, T., Dewi, N. P., & Dwiyanti, L. (2022). Profil Mahasiswa Pancasila dalam Meningkatkan Karakter Kebhinekaan Global di Era 4.0. *Prosiding SEMDIKJAR (Seminar Nasional Pendidikan Dan Pembelajaran)*, *5*, 734–739.