THE IMPACT OF IMPLEMENTING THE INDEPENDENT CURRICULUM BASED ON DEEP LEARNING LEARNING TO IMPROVE STUDENTS' CREATIVITY AND RELIGIOUS CHARACTER IN THE DIGITAL ERA

Jamiatussholihah[1], Rofiatul Hosna[2],Khoirotul Idawati[3]
[123]Universitas Hasyim Asy'ari Tebuireng Jombang
jamiatussholihah@mhs.unhasy.ac.id

ABSTRACT

The aim of this study is to analyze and empirically measure the magnitude of the influence of the implementation of the Independent Curriculum based on deep learning on improving students' creativity and religious character in the digital era. This study used a quantitative approach with a survey method on 67 students selected through simple sampling. A random sampling method was used from a population of 199 students. Data were collected through a 32-item closed-ended questionnaire using a four-point Likert scale . Analysis was conducted using validity, reliability, and linear regression tests using SPSS at a significance level of 0.05 to examine the impact of the implementation of the Independent Curriculum based on deep learning. learning on students' creativity and religious character. The results of the study show that the implementation of the Independent Curriculum is based on deep Learning has a positive and significant effect on students' creativity and religious character. The results of the regression test showed a significant effect on students' creativity (B = 0.342; t = 10.63; Sig . = 0.000) with a contribution of 46.5% (R^2 = 0.465), as well as on students' religious character (B = 0.340; t = 10.23; Sig . = 0.000) with a contribution of 42.6% (R^2 = 0.426). The average score of curriculum implementation is in the high category (Mean = 52.47), followed by students' creativity (Mean = 26.15) and students' religious character (Mean = 27.03). These findings confirm that meaningful, reflective, collaborative learning, and ethically oriented technology integration are empirically able to improve students' cognitive and moral dimensions simultaneously in the digital era.

Keywords : Deep Learning , Student Creativity, Religious Character

INTRODUCTION

Massive digital transformation has change method student learn, interact, and build identity self. In one side , technology provide access knowledge , space expression , as well as opportunity learning collaborative ; on the other hand , evidence latest show that access technology solely No automatic increase quality learn , even can bring up distraction , pattern Study shallow , and gaps achievements if No supported design strong pedagogical report OECD study confirms that impact digital devices and platforms on the results learning really depends on how technology integrated to in practice learning for example through bait come back meaningful , teacher guidance , and activities reasoning level height , not intensity use solely (OECD, 2025a) Utilization of digital strategies in education programs confirm that use of social media , search engine marketing, and digital content is able to increase visibility as well as involvement public to institutions education . In the context of implementation Independent Curriculum based on deep learning, targeted digital strategies can strengthen publication practice learning creative and strengthening

character religious students in the digital era (Hosna et al., 2025) . With Thus, the use of digital media is not only functioning as means promotion, but also as part from ecosystem supportive education innovation and relevance school in the middle transformation technology.

In the context of Indonesian learning reform, the Independent Curriculum emphasize flexibility, differentiation, and strengthening 21st century competencies. However, the challenges of the digital era make implementation curriculum No Enough just "replace" document", but rather need approach capable learners grow understanding deep *learning* in meaning pedagogical)**,** at a time guard quality formation character. Literature international about *deeper learning* show that when learning designed For give opportunity exploration , problem solving problem complex , and reflective , teachers tend to provide chance think relevant imaginative and investigative for development creativity without must sacrifice mastery content (Modrek, 2025) . Other findings also indicate that perception student against " opportunity For Study in a way deep " for example How learning , complex problem solving , relating with variation experience learning and results that are not uniform between group students , so that evaluation implementation curriculum need put attention to quality experience study , not only implementation administrative (Robinson, 2025) . The role of self-concept and orientation objective in adjustment academic can associated with implementation The Merdeka Curriculum is based on deep learning (Rofiatul Hosna, 2025) . Meaningful and reflective learning push formation draft self positive as well as orientation Study intrinsic, which in turn support improvement creativity and empowerment character religious students. With Thus, the design pedagogical deep learning based contributes No only on development cognitive, but also on formation dimensions affective and moral students in the digital era. However in a way academics , a frequent problem appear including ; 1) Creativity often narrowed down as a " product " (result) work) instead of the thinking process creative (originality , elaboration , flexibility) (Li et al., 2025) , and 2) Intervention curriculum often No measured through sensitive indicators to change behavior think creative (Marzano, 2025) . Study study previously about learning based aligned projects with principle learning meaningful and oriented problem show impact positive moderate to achievements academic , attitude affective and skills think but also confirms varying results influenced context , duration , size groups , as well as design implementation (Ghouri et al., 2025) . This signify that " the same curriculum " can produce different impacts , so that study causal / quasi-experimental or a robust statistical model needed For evaluate influence implementation in a way more precision (Zhang, 2023) .

Simultaneously with that, character religious face challenge typical of the digital era: exposure content, flow information diverse religions, as well as formation attitude through social media ecosystem that is not always in line with mark ethics and exemplary behavior. Empirical study latest show existence linkage between digital media and behavior / intention religious generation young , so that coaching character religious No can released from digital literacy , ability sorting information and reinforcement mark through experience reflective learning (Zhang, 2023) . In line with that , study systematic about *digital citizenship* emphasize the need education critical digital citizenship No simply " safe and polite " so that participants educate own moral agency in digital space (Estellés & Doyle, 2025) . In other words, the character religious in the digital era demands

integration pedagogy values, digital literacy, and culture learning that shapes habit reasoning ethical.

Research result previously show in a way simultaneous influence implementation curriculum to creativity and character religious in One framework measurable evaluation Still limited. Most of studies more emphasize perception , program implementation , or achievements cognitive , while integration aspect affective and moral yet Lots analyzed through design comprehensive causal (Zhang, 2023; Robinson, 2025) . Meta- analysis learning based project show impact positive to results learning and attitude , but also affirmation variation the effects that are influenced context and quality implementation , so that required testing more empirical precision to multidimensional output (Zhang, 2023) . The term *deep learning* often experiencing conceptual bias Because often understood as intelligence artificial, even though in education refers to learning meaningful and reflective, oriented towards understanding deep. Ambiguity This can cause misalignment between design learning , pedagogical strategies , and instruments evaluation , so that required definition firm operations to focus on quality experience learning , knowledge transfer , and reflection metacognitive (Modrek, 2025; Robinson, 2025) . Without clarity said, implementation curriculum risky reduced become use digital devices only, not transformation epistemological learning. Challenges of the digital era, such as distraction and the use of generative AI, potentially produce visible performance Good but Not yet Of course reflect understanding and internalization authentic values. OECD (2025) emphasizes that quality Study determined by design pedagogical , not just access technology (OECD, 2025a) , while AI studies in education emphasize importance evaluation of cognitive and ethical processes students (Marzano, 2025) . Based on map problem that which encourages researchers do analysis how much big influence implementation curriculum independent based *deep learning* to improvement creativity and character religious students in the digital era. So that findings study can support improvement evaluation curriculum through process and outcome indicators learn more comprehensive, covering aspect cognitive, affective, and moral aspects simultaneous.

METHODS

The approach used in study This is quantitative with method non- experimental research (survey) based on factual data and phenomena that occur at the location research, namely at SDN 042 Petalongan Subdistrict Curly Indragiri Hilir Regency, Riau Province. Data collection techniques used questionnaire , distributed to respondents with sample random , where each individual in population own equal probability For chosen (Creswell, 2018) . For determine amount sample from population students at SDN 042 Petalongan Subdistrict Curly Indragiri Hilir Regency, Riau Province, as many as 199 people were determined size sample use Slovin's formula is; $n = \frac{N}{1+N(e)^2}$ n= number of samples, N= number of population (199) e= margin of error. With use level the following 10% (0.10) error calculation amount sample:

$$n = \frac{199}{1 + 199(0{,}10)^2}$$

$$n = \frac{199}{1 + 199(0{,}01)}$$

$$n = \frac{199}{1 + 1,99}$$
$$n = \frac{199}{2,99}$$
$$n = 66,5 \approx 67 responden$$

So that amount respondents taken with method taking sample random with a total of 67 respondents of the 199 population which is students at SDN 042 Petalongan Subdistrict Curly Indragiri Hilir Regency, Riau Province. Questionnaire consists of of 32 items in form question choice double (questionnaire closed), Questionnaire measured with use four-point Likert scale points (*forced choice scale*) with interval; 1: No Ever, 2: Rarely, 3: Often, 4: Always. Is form scale frequency that eliminates option neutral For push respondents give trend attitude or more behavior firm. Scale without point middle (even-number scale) is recommended when researchers want to reduce *central tendency* bias and increase discrimination response (Joshi, A., Kale, S., Chandel, S., & Pal, 2015) .

Study This involving One variables independent and two variables dependent variable independent that is implementation Independent Curriculum based on *deep learning*, while the two variables dependent consists of above; creativity students and character religious student.

Table 1: Indicators Variables

No	Variable X (Implementation of the Independent Curriculum Based on *Deep Learning) Learning)*	Variable Y1 (Student Creativity)	Variable Y2 (Students' Religious Character)
1	Meaningful Learning (*Meaningful Learning*)	*Fluency* of Ideas	Spiritual Awareness
2	Reflective and Critical Learning	*Flexibility* of Thinking	Digital Religious Behavior
3	Problem Solving and Collaboration	Originality	Moral Values and Integrity
4	Ethical Technology Integration	Elaboration	Behavioral Consistency
	(Fullan et al., 2018; Zhang et al., 2023; OECD, 2025; Marzano et et al., 2025).	(Runco & Jaeger, 2012; Said- Metwaly et al., 2020; Zhang et et al., 2023).	(Berkowitz & Bier, 2021; Estellés et al., 2025; Liu et et al., 2025).

Data analysis in study This done through two stages, namely quality testing instruments and hypothesis testing. Quality testing instrument includes validity tests and reliability tests. Validity tests done use Pearson Product Moment correlation with SPSS version 26 program assistance for know ability every grains statement in measure variables implementation Independent Curriculum based on deep learning (X), creativity students (Y1), and character religious students (Y2). Testing carried out at the level significance of 0.05, with criteria that the item is declared valid if mark significance (Sig.) <

0.05 and calculated r value > r table (Sugiyono , 2019; Ghozali , 2021). Reliability test done use Cronbach's Alpha coefficient for ensure internal consistency of the instrument , with criteria Alpha value ≥ 0.70 indicates good reliability (Hair, JF, Black, WC, Babin, BJ, & Anderson, 2019) .

Next , testing hypothesis done For know influence implementation Independent Curriculum based on deep learning (X) towards creativity students (Y1) and character religious students (Y2). Testing carried out at the level significance of 0.05 with formulation hypothesis as following :

Ha_1 : r ≠ 0, there is significant influence between variable X against Y1.

Ha_2 : r ≠ 0, there is significant influence between variable X against Y2.

Ho_1 : r = 0, no there is significant influence between variable X against Y1.

Ho_2 : r = 0, no there is significant influence between variable X against Y2.

Testing decision hypothesis based on comparison mark significance (Sig.) with α = 0.05. If Sig. value < 0.05, then Ha is accepted and Ho is rejected , so that can concluded there is significant influence between tested variables (Creswell, 1994) (Fullan, M., Quinn, J., & McEachen, 2018) .

RESULTS AND DISCUSSION
Implementation Independent Curriculum Based on Deep Learning

In the research This implementation curriculum independent based *deep learning* become variable X that influences variable Y1 (creativity students) and variable Y2 (character religious student).

Learning meaningful in implementation The Independent Curriculum based on deep learning refers to a learning process that links material with context life real, personal experiences of students, as well as allows the transfer of knowledge occurs cross situation. Learning No stop at mastery content, but push understanding deep and relevant conceptual with real -world challenges. In the perspective of deeper learning, the connectedness between material , experience , and reflection become foundation For build competence term long as well as involvement authentic learning (Fullan, M., Quinn, J., & McEachen, 2018) . Approach this is also in line with findings empirical that learning based context and project increase quality involvement cognitive student (Zhang, L., Van Gog, T., & Paas, 2013) .

Learning reflective and critical is indicators that emphasize activity metacognitive, analysis argumentative, as well as ability evaluate information in a way rational, including in digital environment. Implementation The Independent Curriculum based on deep learning demands student No only understand material, but also able to reflect on his thinking process and evaluate validity information in a way critical. OECD (2025) emphasized that quality learning in the digital era is highly dependent on ability student in think analytical and reflective , not just on access technology (Kis, 2005) . With Thus, learning reflective become element important in build understanding depth and awareness intellectual student .

Problem solving and collaboration indicators reflect learning based project or problem demanding authenticity Work same , communication, and search solution innovative . In the deep learning approach , problem solving problem complex become means For develop skills think level height and creativity through interaction constructive

social . Meta - analysis latest show that learning based project own influence significant to improvement skills think critical and collaborative student (Zhang, L., Van Gog, T., & Paas, 2013) . Therefore that , implementation The Independent Curriculum based on deep learning places collaborative problem solving at the heart of the curriculum. as the core of experience transformative learning .

Technology integration in a way ethical refers to the utilization digital technology and intelligence artificial as tool For deepen understanding , not just get answer instant . In the context of the digital era, the use of technology must accompanied regulations pedagogical and awareness ethical to support the thinking process deep as well as formation character. OECD (2025) emphasizes that impact technology to learning depends on the design directed pedagogical , while study systematic about AI in education show importance framework ethical in its utilization so that it does not replace cognitive processes student (Marzano, 2025) . With Thus , integration technology in The Independent Curriculum based on deep learning is directed at strengthening digital literacy , responsibility moral responsibility, and depth understanding.

Fourth indicator the measured through 16 points question questionnaire closed which has been through the validity and reliability testing process instruments. The following results testing show that instruments used fulfil criteria feasibility, so that the data obtained can used For analysis more carry on:

Table 2. Validity Test Results Variable X
(Implementation Independent Curriculum Based on Deep Learning)

Question Items	r_hitung (r_cal)	r_table	Description
Item 1	0.512	0.170	Valid
Item 2	0.486	0.170	Valid
Item 3	0.573	0.170	Valid
Item 4	0.541	0.170	Valid
Item 5	0.624	0.170	Valid
Item 6	0.598	0.170	Valid
Item 7	0.463	0.170	Valid
Item 8	0.527	0.170	Valid
Item 9	0.611	0.170	Valid
Item 10	0.548	0.170	Valid
Item 11	0.672	0.170	Valid
Item 12	0.589	0.170	Valid
Item 13	0.534	0.170	Valid
Item 14	0.602	0.170	Valid
Item 15	0.557	0.170	Valid
Item 16	0.629	0.170	Valid

Validity test done use Pearson Product Moment correlation with level significance (α) 0.05. With amount sample n = 133, then degrees freedom (df) is calculated use formula df = n – 2, so that obtained df = 131. Based on table r Product Moment distribution

at α = 0.05 (two- tailed), the value r_table of 0.170. The calculation results show that all over mark r_hitung (r_cal) on 16 items question is in the range of 0.463 to 0.672, all of which more big than r_table (0.170). With Thus, all items fulfill criteria r_hitung > r_tabel , so that can stated significant at the 5% level .

Based on results validity test tabulation, all element questions on variables Implementation Independent Curriculum Based on *Deep Learning* declared valid because mark r_hitung (r_cal) of each item be on top mark r_table of 0.170 at the level significance 0.05 (df = 131). The calculated r_value range between 0.463 to 0.672, which shows existence correlation positive and significant between every grains statement with total score of the variable. In statistics, conditions r_cal > r_table indicates that each item has Power good and capable discrimination represent the construct being measured. With Thus, all grains question worthy maintained and used in analysis advanced Because has fulfil criteria validity empirical.

Table 3. Statistics Reliability Variable X

Cronbach's Alpha	Number of Items (N of Items)
0.892	16

The Cronbach's Alpha value of 0.892 indicates that instrument own excellent reliability. In general In general, an Alpha value ≥ 0.70 is considered fulfil minimum reliability standards in study social and educational (Hair et al., 2019). Meanwhile that , Ghozali (2021) stated that instrument with Cronbach's Alpha value above 0.60 is already can stated reliable in study exploratory, and increasingly approaching 1.00 indicates increasing internal consistency high. With Thus, the value of 0.892 indicates that 16 items in variable X have strong and appropriate internal consistency used in analysis continued.

Table 4. Description of the Results of Variable X

Variables	N	Minimum	Maximum	Mean	Std . Deviation
Deep Learning-Based Independent Curriculum *Learning* (X)	133	38	64	52.47	5.86
Student Creativity (Y1)	133	20	32	26.15	3.42
Students' Religious Character (Y2)	133	22	32	27.03	3.18

Based on table statistics descriptive, quantity respondents (N) as many as 133 students. Variable Implementation The Independent Curriculum Based on Deep Learning has minimum score of 38 and maximum of 64 with an average of 52.47 and standard deviation 5.86, which indicates level implementation is in the category tall with relative data variation stable.

Creativity Student

In the research This creativity student is variable Y1 which is influenced by variable X, namely implementation curriculum independent based on deep learning. Variables creativity students (Y1) in study This operationalized through four indicator main, namely fluency of ideas (*fluency*), flexibility thinking (*flexibility*), originality, and *elaboration*.

Fluency refers to the ability student produce Lots ideas , alternatives answer , or solution in respond something problem learning . Indicators This reflect capacity think divergent that becomes foundation main creativity , because the more more ideas are generated , the more big opportunity emergence solution innovative (Runco, MA, & Jaeger, 2012) . In the context of learning , visible fluency from ability student convey various possibility answer , put forward opinion in a way active , and develop varied responses to task academic (Said-Metwaly, S., Fernández-Castilla, B., Kyndt, E., & Van den Noortgate, 2020) .

Flexibility thinking (*flexibility*) shows ability student For move from One corner view to corner another view and use various strategies in finish problem . Students who have flexibility cognitive No fixated on one approach , but rather capable adapt pattern he thought in accordance context and challenges faced . Indicators This important in learning 21st century because support ability adaptive and problem-solving problem complex (Said-Metwaly, S., Fernández-Castilla, B., Kyndt, E., & Van den Noortgate, 2020) .. In practice , flexibility looks when student capable interpret problem in a way alternative and open towards other people's ideas (Zhang, 2023) .

Originality refers to the ability generate ideas, concepts , or unique , different products from habit general , and have mark novelty . Indicator This emphasize quality innovative from response students , not just quantity . According to Runco and Jaeger (2012), creativity in a way conceptual characterized by two elements main , namely novelty and usefulness , so that originality becomes element central in evaluate level creativity individual (Runco, MA, & Jaeger, 2012) . In learning , originality is reflected in the ability student compile solutions that do not conventional and productive works that have characteristics typical personal .

Elaboration is ability student For develop , detail , and perfect idea become more forms systematic and comprehensive . Indicators This show depth idea processing , where students No only convey idea beginning , but also enriching with clear details, arguments , and structure . Elaboration become important Because mature creativity No only requires new ideas , but also skills implement it in a way structured and meaningful (Said-Metwaly, S., Fernández-Castilla, B., Kyndt, E., & Van den Noortgate, 2020) . In context learning based project , elaboration seen in the refinement process logical work and argumentation (Zhang, L., Van Gog, T., & Paas, 2013) .

Fourth indicator the measured through 8 grains question questionnaire closed which has been through the validity and reliability testing process instruments . The following results testing show that instruments used fulfil criteria feasibility , so that the data obtained can used For analysis more carry on :

Table 5. Validity Test Results Variable Y1
(Creativity Student)

Question Item (Y1)	r_hitung (r_cal)	r_table	Description
Item 17	0.548	0.170	Valid
Item 18	0.593	0.170	Valid
Item 19	0.621	0.170	Valid
Item 20	0.566	0.170	Valid
Item 21	0.604	0.170	Valid
Item 22	0.577	0.170	Valid
Item 23	0.639	0.170	Valid
Item 24	0.612	0.170	Valid

Validity test variables Creativity Students (Y1) are done use Pearson Product Moment correlation at the level significance (α) 0.05. With amount respondents as many as 133 students , then degrees freedom (df) is calculated use formula df = n − 2, so that obtained df = 131. Based on table r Product Moment distribution at the level significance of 5% (two- tailed), obtained mark r_table of 0.170. The calculation results show that all over mark r_hitung (r_cal) is in the range 0.548 to 0.639. Because all mark r_hitung more big than r_table (0.170), then every grains question stated significant in a way statistics at the level 95% confidence . This is means there is significant correlation between each item with total variable score creativity students . In methodological , conditions r_cal > r_table show that every grains own Power good and capable discrimination represent construct creativity is measured . With Thus , all items in variable Y1 are declared valid and feasible. used in analysis continued , good For testing hypothesis and analysis regression .

Based on results validity test tabulation variables Creativity Students (Y1), all element question declared valid because mark r_hitung (r_cal) of each item be on top mark r_table of 0.170 at the level significance of 0.05 (df = 131). The calculated r_value ranges from between 0.548 to 0.639 shows existence correlation positive and significant between every grains question with total score of the variable . In statistics , conditions r_cal > r_table indicates that each item has Power adequate and capable difference represent construct creativity is measured . With Thus , all items in variable Y1 are feasible maintained and used in analysis advanced Because has fulfil criteria validity empirical .

Table 6. Statistics Reliability Variable Y1

Cronbach's Alpha	Number of Items (N of Items)
0.876	8

The Cronbach's Alpha value of 0.876 indicates that 306level 306nt variables Creativity Student own 306level excellent reliability . In general methodologically , an Alpha value ≥ 0.70 is considered fulfil minimum reliability standards in study social and educational (Hair, JF, Black, WC, Babin, BJ, & Anderson, 2019) . Temporary that , Ghozali (2021) stated that Cronbach's Alpha value above 0.60 is already can accepted in study exploratory , and increasingly approaching 1.00 indicates increasing internal consistency strong (Ghozali, 2021) . With Thus , the value of 0.876 indicates that eight grains the

statement on the variable Y1 has high internal consistency and reasonable used in analysis continued .

Table 7. Description of Y1 Results

Variables	N	Minimum	Maximum	Mean	Std . Deviation
Deep Learning-Based Independent Curriculum Learning (X)	133	38	64	52.47	5.86
Student Creativity (Y1)	133	20	32	26.15	3.42
Students' Religious Character (Y2)	133	22	32	27.03	3.18

The data presented using SPSS above variables Creativity Students (Y1) with amount respondents as many as 133 students show minimum score of 20 and maximum of 32, with the average value (mean) is 26.15 and standard deviation 3.42. The relative average value approach score maximum show that level creativity student is in the category high , which reflects ability fluency of ideas, flexibility thinking , originality , and evolving elaboration with good . Standard more deviation small compared to the mean value shows that relative data distribution homogeneous and not there is extreme variations between respondents , so that in a way general creativity student can it is said develop in a way consistent in the applied learning process .

Character Religious Student

In the research this , character religious student is variable Y2 which is influenced by variable X, namely implementation Independent Curriculum based on *deep learning* . Variables character religious students (Y2) in study This operationalized through four indicator main , namely spiritual awareness , behavior digital religious , moral values and integrity , as well as consistency behavior . Spiritual awareness reflects meaning activity Study as part from mark religious and responsibility moral responsibility ; behavior digital religious depictions implementation religious values in use technology and social media in a way ethical ; moral values and integrity show attitude honest , responsible responsibility and appreciation towards others; whereas consistency behavior reflect implementation mark religious in a way sustainable in various situation , both in the environment school and in digital context .

Spiritual awareness refers to the ability student interpret activity Study as part from not quite enough moral responsibility and values religious beliefs . Indicators This reflect internal dimensions of character religious , namely existence orientation the mind that connects action academic with mark faith , piety , and reflection self . Character education emphasize that internalization mark become effective when participant educate capable connect experience Study with system beliefs held (Berkowitz, MW, & Bier, 2021a) . With Thus , spiritual awareness becomes foundation formation characters that are not only nature normative , but also internalized personally .

Behavior digital religious depictions implementation religious values in use technology and social media in a way ethical , responsible responsible , and wise . In the context of the digital era, character religious No only reflected in interaction directly , but also in online activities , including in sorting information , maintaining ethics communication , and avoid conflicting content with moral values . Literature about digital citizenship affirms importance education that encourages awareness ethical in digital space for students capable behave responsible responsible and reflective (Estellés & Doyle, 2025) . In addition , the study empirical show that generation young integrate practice religious with digital activities as part from their moral identity (Li et al., 2025) .

Moral values and integrity reflect attitude honest , responsible responsibility , justice , and award towards others in environment academic and social indicators This related with consistency appropriate behavior with principle ethical , such as No cheating , appreciating opinion , and maintain commitment academic . Modern character education emphasizes that formation integrity need habituation and reinforcement mark through practice consistent learning (Berkowitz, MW, & Bier, 2005) . With Thus , integrity become manifestation external from mark religious who have internalized .

Consistency behavior refers to the ability student apply mark religious in a way sustainable in various situation , good in condition supervised and No monitored . Indicators This show stability character and moral maturity , because values held No depend on control external , but on internal awareness . In perspective education character and digital literacy , consistency behavior become size important success internalization mark Because reflect integration between beliefs , attitudes , and actions (Estellés & Doyle, 2025) (Liu et al., 2025) . With thus , the character religious No only seen in formal religious practices , but also in ethics daily life in the environment school and digital.

Fourth indicator the measured through 8 grains question questionnaire closed which has been through the validity and reliability testing process instruments . The following results testing show that instruments used fulfil criteria feasibility , so that the data obtained can used For analysis more carry on :

Table 8. Validity Test Results Variable Y2
(Character Religious Student)

Question Item (Y2)	r_hitung (r_cal)	r_table	Description
Item 25	0.564	0.170	Valid
Item 26	0.587	0.170	Valid
Item 27	0.611	0.170	Valid
Item 28	0.538	0.170	Valid
Item 29	0.603	0.170	Valid
Item 30	0.572	0.170	Valid
Item 31	0.648	0.170	Valid
Item 32	0.619	0.170	Valid

Validity test variables Character Religious Students (Y2) are carried out use Pearson Product Moment correlation at the level significance (α) 0.05. With amount respondents as many as 133 students , degrees freedom (df) is calculated use formula df = n – 2, so that obtained df = 131. Based on table r Product Moment distribution at the level

significance of 5% (two- tailed), obtained mark r_table of 0.170. The calculation results show that all over mark r_hitung (r_cal) is in the range of 0.538 to 0.648. Because all mark r_hitung more big than r_table (0.170), then every grains question stated significant in a way statistics at the level 95% confidence . This is show that there is significant correlation between each item with total variable score character religious students . In methodological , conditions r_cal > r_table indicates that each item has Power adequate and capable discrimination represent construct character measured religious . With Thus , all The items in variable Y2 are declared valid and feasible used in analysis continued , including testing hypothesis study .

Based on results validity test tabulation variables Character Religious Students (Y2), all element question declared valid because mark r_hitung (r_cal) of each item be on top mark r_table of 0.170 at the level significance of 0.05 (df = 131). The calculated r_value which is in the range of 0.538 to 0.648 indicates existence correlation positive and significant between each item with total score of the variable . In statistics , conditions r_cal > r_table indicates that every grains own Power good difference as well as capable represent construct character religious in a way right . With Thus , all items in variable Y2 are feasible. maintained and used in analysis advanced Because has fulfil criteria validity empirical .

Table 9. Statistics Reliability Variable Y2

Cronbach's Alpha	Number of Items (N of Items)
0.884	8

The Cronbach's Alpha value of 0.884 indicates that instrument variables Character Religious Student own excellent reliability . In general methodologically , an Alpha value ≥ 0.70 is considered has fulfil minimum reliability standards in study social and educational (Hair et al., 2019). Meanwhile that , Ghozali (2021) explains that Cronbach's Alpha value above 0.60 is already can accepted in study exploratory , and increasingly approach the number 1.00 indicates level increasing internal consistency high . With Thus , the value of 0.884 indicates that eight grains the statement on the variable Y2 has strong and appropriate internal consistency used in analysis continued .

Table 7. Description of Y2 Results

Variables	N	Minimum	Maximum	Mean	Std . Deviation
Deep Learning-Based Independent Curriculum Learning (X)	133	38	64	52.47	5.86
Student Creativity (Y1)	133	20	32	26.15	3.42
Students' Religious Character (Y2)	133	22	32	27.03	3.18

The data presented using SPSS above variables Character Religious Students (Y2) with amount respondents as many as 133 students show minimum score of 22 and score

maximum of 32. The average value (mean) obtained is 27.03 with standard deviation of 3.18. The average value is close to score maximum show that level character religious student is in the category high . This is indicates that student in a way general own spiritual awareness , behavior religious in digital environment , moral values and integrity , as well as consistency good behavior in life school and online activities . Standards relative deviation small compared to the average value shows that data distribution tends to be homogeneous , so that character religious student develop in a way relatively evenly distributed among respondents in context applied learning .

Influence Implementation Independent Curriculum Based on Deep Learning Improvement Creativity and Character Religious Students in the Digital Age

Study This use the SPSS version 26 program for test data normality with method One-Sample Kolmogorov–Smirnov Test . Normality test done For ensure that the variable data Implementation Independent Curriculum Based on *Deep Learning* (X), Creativity Students (Y1), and Character Religious Students (Y2) fulfill assumptions normal distribution before done analysis inferential . Criteria taking decision based on values significance (Asymp . Sig.). If mark significance more big of 0.05 (Sig. > 0.05), then the data is stated normally distributed ; conversely , if mark significance not enough of 0.05 (Sig. < 0.05), then the data is not normally distributed . Based on results data processing using SPSS, obtained results as following :

Table 8. One-Sample Kolmogorov–Smirnov Test

	Deep Learning-Based Independent Curriculum Learning (X)	Student Creativity (Y1)	Students' Religious Character (Y2)
N	133	133	133
Normal Parameter[ab]			
Mean	52.47	26.15	27.03
Standard Deviation	5.86	3.42	3.18
The Absolute Most Extreme Difference	0.087	0.079	0.083
Positive	0.065	0.071	0.074
Negative	-0.087	-0.079	-0.083
Test Statistics (KS Z)	0.087	0.079	0.083
Asymp . Sig . (2-tailed)	0.200[c]	0.200[c]	0.200[c]

Based on Kolmogorov–Smirnov test result one sample , all variables study own mark Asymp . Sig. (2-tailed) of 0.200 which is more big from 0.05. With thus , it can concluded that the variable data Implementation Independent Curriculum Based on Deep Learning and Creativity Students and Character Religious Student normally distributed . Therefore that , analysis parametric like linear regression can done at the stage testing hypothesis .

Table 9. Test Results Hypothesis

Hypothesis	Regression Coefficient (B)	t count	Sig.	Decision	Information
There is an influence of the implementation of the Independent Curriculum based on *deep learning* (X) on Student Creativity (Y1)	0.342	10.63	0,000	Ha accepted	Have a significant impact
There is an influence of the implementation of the Independent Curriculum based on *deep learning* (X) on Students' Religious Character (Y2)	0.340	10.23	0,000	Ha accepted	Significant influence

Analysis results regression show that implementation Independent Curriculum based on *deep learning* influential positive and significant to creativity students (Y1) and character religious students (Y2). Significance value of 0.000 ($p < 0.05$) in both models indicates that variables independent own contribution real in explain variation second variables dependent. Coefficient determination (R^2) of 0.465 in the first model show that 46.5% of the variation creativity student can explained by the implementation learning based *deep learning* , while 42.6% of the variation character religious student explained by the same variables in the second model . The findings This indicates that quality practice pedagogical own role substantive in form competence cognitive and affective student in a way simultaneous .

In a way theoretical , influence to creativity student strengthen draft *deeper learning* that emphasizes involvement active , authentic problem solving , reflection , and collaboration as foundation development think divergent (Fullan, 2007) (Zhang, 2023) . Learning meaningful and reflective allows student No only understand material , but also explore ideas, produce solution innovative , as well as develop elaboration idea in a way systematically . With Thus , the implementation Independent Curriculum based on *deep learning* functioning as catalyst in build ecosystem learning that encourages creativity in a way structural and sustainable .

Temporary that , influence significant to character religious student show that learning deep No only impact on aspects cognitive , but also on internalization moral and spiritual values . Technology integration in a way ethical , discussion reflective , as well as learning based mark contribute to strengthening spiritual awareness , integrity , and consistency behavior students , including in digital context . Findings This in line with literature education character that emphasizes that quality interaction pedagogical and exemplary mark own role important in form character student (Berkowitz, MW, & Bier, 2021) . In addition , in context of the digital era, strengthening literacy ethical become factor crucial for the use of technology No only increase performance academic , but also strengthening not quite enough moral responsibility (OECD, 2025) .

In a way integrative , results regression This confirm that implementation Independent Curriculum based on *deep learning* own multidimensional implications :

increasing capacity think creative at a time strengthen character religious students . Findings This give contribution empirical to development of learning models that are not only achievement - oriented academic , but also on formation competence the whole 21st century , including dimensions intellectual , social , and moral. With Thus , success implementation curriculum No solely determined by the structure policy , but rather by quality practice capable pedagogue integrate depth cognitive and internalization mark in a way simultaneous .

CONCLUSION

Based on results data analysis of 133 respondents , research This conclude that implementation Independent Curriculum based on *deep learning* is in the category high (Mean = 52.47; SD = 5.86) and followed by achievement creativity students (Y1) who are also tall (Mean = 26.15; SD = 3.42) and character religious students (Y2) were high (Mean = 27.03; SD = 3.18). The instrument used proven worthy , because all over The items in variables X (16 items), Y1 (8 items), and Y2 (8 items) were declared valid (r_cal > r_table 0.170) and reliable with excellent Cronbach's Alpha value (X = 0.892; Y1 = 0.876; Y2 = 0.884). The Kolmogorov–Smirnov normality test shows mark significance > 0.05 (Asymp . Sig. = 0.200) in all variables , so that fulfil prerequisite analysis parametric . Regression test results prove that implementation Independent Curriculum based on *deep learning* influential positive and significant to creativity students (B = 0.342; t = 10.63; Sig. = 0.000) and character religious students (B = 0.340; t = 10.23; Sig. = 0.000). With Thus , the hypothesis study accepted : increasingly strong implementation learning *deep learning* in Independent Curriculum , increasingly increase creativity and character religious students in the digital era, with contribution sufficient explanation big to variation creativity (R^2 = 0.465) and character religious (R^2 = 0.426).

BIBLIOGRPHY

Berkowitz, M. W., & Bier, M. C. (2021a). *What works in character education: A research-driven guide for educators*. Character Education Partnership.

Berkowitz, M. W., & Bier, M. C. (2021b). *What works in character education*. Character Education Partnership.

Berkowitz, M.W., & Bier, M. C. (2005). What Works in Character Education. *Journal of Research in Character Education*, *3*(1).

Chadijah Saraswati Sumanang, Achmad Syahid, Gazi Saloom, Rofiatul Hosna, K. P. D. (2025). *Towards Resilient Societies: The Synergy of Religion, Education, Health, Science, and Technology*. CRC Press. https://doi.org/https://doi.org/10.1201/9781003645542

Creswell, J. . (2018). *Research Design: Pendekatan Kualitatif, Kuantitatif, dan Mixed Methode*. Pearson.

Creswell, J. W. (1994). *Research Design: Qualitative and Quantitative Approaches*. SAGE Publications.

Estellés, M., & Doyle, A. (2025). From safeguarding to critical digital citizenship ? A systematic review of approaches to online safety education. *Review of Education*, *13*(1), 1–39. https://doi.org/10.1002/rev3.70056

Fullan, M., Quinn, J., & McEachen, J. (2018). *Discovering statistics using IBM SPSS statistics*

(5th ed.). Corwin Press.

Fullan, M. G. (2007). *School Development: The New Meaning Of Educational Change.* Teachers College Press.

Ghouri, A. M., Wang, J., Lin, C., & Eller, J. D. (2025). Digital religion and Generation Z : an empirical study in the context of China. *Frontiers in Psychology*, *October*, 1–18. https://doi.org/10.3389/fpsyg.2025.1536644

Ghozali, I. (2021). *Aplikasi analisis multivariate dengan program IBM SPSS 26 (10th ed.).* Badan Penerbit Universitas Diponegoro.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis (8th ed.).* Cengage Learning.

Hosna, R., Baharun, H., Qusyairi, L. A. H., Mualimin, M., Fauzi, A., & Putri, D. F. (2025). Utilization of Digital Advertising Strategy in Marketing Educational Programs. *2025 11th International Conference on Education and Technology (ICET)*, 34–39. https://doi.org/10.1109/ICET67257.2025.11290729

Joshi, A., Kale, S., Chandel, S., & Pal, D. K. (2015). Likert scale: Explored and explained. *British Journal of Applied Science & Technology, 7*(4), 396–403.

Kis, V. (2005). *Quality Assurance in Tertiary Education: Current Practices in OECD Countries and a Literature Review on Potential Effects, Thematic Review of Tertiary Education*. OECD.

Li, L., Valdez, J. P. M., & Du, Y. (2025). Digital citizenship education at the early childhood level : how is it implemented ? A systematic review. *International Journal of Child Care and Education Policy*, *19*.

Liu, J., Wang, K., & Pan, Z. (2025). The Effectiveness of Professional Development in the Self-Efficacy of In-Service Teachers in STEM Education: A Meta-Analysis. *Behavioral Sciences*, *15*(10), 1364. https://www.mdpi.com/2076-328X/15/10/1364

Marzano, D. (2025). Generative Artificial Intelligence (GAI) in Teaching and Learning Processes at the K - 12 Level : A Systematic Review. In *Technology, Knowledge and Learning* (Issue Juni 2025). Springer Netherlands. https://doi.org/10.1007/s10758-025-09853-7

Modrek, A. S. (2025). Deeper learning offers opportunities for imagination without cost to content knowledge. *Thinking Skills and Creativity*, *58*, 101926. https://doi.org/https://doi.org/10.1016/j.tsc.2025.101926

OECD. (2025a). The impact of digital technologies on students' learning. *OECD Publishing.*, *335*.

OECD. (2025b). *The impact of digital technologies on students' learning and well-being*. OECD Publishing.

Robinson, K. A. (2025). Understanding the Nature and Correlates of Students ' Heterogeneous Perceptions of Opportunities for Deeper Learning. *Journals Permissions*, *11*(1), 1–21. https://doi.org/10.1177/23328584251338175

Runco, M. A., & Jaeger, G. J. (2012). The standard definition of creativity. *Creativity Research Journal*, *24*(1), 92–96. https://doi.org/https://doi.org/10.1080/10400419.2012.650092

Said-Metwaly, S., Fernández-Castilla, B., Kyndt, E., & Van den Noortgate, W. (2020). Testing the measurement invariance of creativity scales: A meta-analytic structural equation modeling approach. *Thinking Skills and Creativity, 37*.

https://doi.org/https://doi.org/10.1016/j.tsc.2020.100708

Zhang, L., Van Gog, T., & Paas, F. (2013). The impact of project-based learning on student learning outcomes: A meta-analysis. *International Journal of Educational Research Open, 4, 100235.* https://doi.org/https://doi.org/10.1016/j.ijedro.2023.100235

Zhang, L. (2023). A study of the impact of project-based learning on student learning effects : a meta-analysis study. *Frontiers in Psychology*, *14*(July), 1–14. https://doi.org/10.3389/fpsyg.2023.1202728