# Alamat Jurnal Swendra

https://www.google.com/imgres?imgurl=https%3A%2F%2Fwww.scimagojr.com% 2Fjournal\_img.php%3Fid%3D21100937445&imgrefurl=https%3A%2F%2Fwww.sci magojr.com%2Fjournalsearch.php%3Fq%3D21100937445%26tip%3Dsid%26clean %3D0&tbnid=ApONa1rlx3wTYM&vet=1&docid=zPzjPkUkpSXOwM&w=200&h=20 0&hl=en-US&source=sh%2Fx%2Fim

Url artikel Swendra :

# http://asianonlinejournals.com/index.php/JEELR

Bukti Koresponden Artikel Swendra

Dear I Wayan Suwendra

We are going to publish your paper in the forthcoming issue of "JEELR". Please improve your paper by changing the following:

- 1. Please check all the section numbers of the article.
- 2. Your paper abstract should not exceed 220 words.
- 3. You should present from 6 to 10 keywords in the paper.
- 4. It is necessary to review the English (English must be improved).
- 5. Please provide the details of missing information in the references.

6. Please send us ORCID profile link of all authors. If you don't have an ORCID profile, please open the given link (www.orcid.org), create a profile and send us a link.

Please send us a revised file within 48 hours by including the above comments. Otherwise, your paper will be pending for publication.

Note: We also require email ids and phone numbers of all authors and a picture of only corresponding author. It's compulsory for our new format to add the picture of the corresponding author. We are waiting for your reply.

I look forward to hearing from you.

Sincerely,

Sara Lim

**Managing Editor** 

	AUTHOR QUERY FORM
Journal: JEELR	Please e-mail your responses and any corrections to: asianonlinejournals@gmail.com; info@asianonlinejournals.com

# Dear Author,

Please check your proof carefully and make all changes in attached MS-Word file of the article, where you highlight the changes. Please do not change the format of the article, and missing references send us in separate sheet or write in the email text. To certify fast publication of your paper please return your corrections within 48 hours.

Query- No.	Questions
1	Please Check that given the names and surnames of the authors have been recognized properly and are presented in the preferred order.
2	Please check the English grammatical mistakes that highlighted in red color
3	Please check the following references- (Uge et al., 2019), (Suhartini et al., 2019) That have been cited in the text but not provided in the reference list. Provide these reference or remove them from text.
4	In these references, Please add missing volume number, issue number and page no. <b>List of References</b> Rogers, J., & Revesz, A. (2019). Experimental and quasi-experimental. <i>Research Gate</i> , 133–143.
5	Please complete properly the cited references of book review, working paper and conference paper. You will need to properly check the publisher, publisher country name, page no. List of References Geertz, C. (1992). <i>Culture and religion</i> : Canisius Press. Kriyantono, R. (2014). <i>Practical techniques of communication research</i> (7th ed.): Kencana Prenada Media.
6	Please check heading and sub heading numbers.
7	Check the grammar and spelling mistake with the words those are highlighted in green color.
8	Please check again the table numbers and equations order

**9** If the research article is funded by university/institute, please provide us details.

The Integration of the Self-Concept-Based Upanisad Learning Model in Blended Learning and Its Impact on Character Development and Creative Thinking Skills

by 1562 .....

Submission date: 22-Aug-2022 02:11AM (UTC-0500) Submission ID: 1885377377 File name: 1562-JEELR.docx (159.67K) Word count: 8925 Character count: 53525 Journal of Education and e-Learning Research Vol. x, No. x, xx-xx, 2022 ISSN(E) 2410-9991: / ISSN(P) 2518-0169: DOI: © 2020 by the authors, licensee Asian Online Journal Publishing Group

The Integration of the Self-Concept-Based Upanisad Learning Model in Blended Learning and Its Impact on Character Development and Creative Thinking Skills

I Wayan Suwendra <sup>1</sup><sup>35</sup> I Putu Suarnaya <sup>2</sup> I Wayan Widiana <sup>3</sup> Ni Luh Asli <sup>4</sup>

\*\*\* STKIP Agama Hindu, Singaraja, Indonesia \*Universitas Pendidikan Ganesha, Singaraja, Indonesia \*Email: suwendra@stkipahsingaraja.ac.id



( Corresponding Author)

#### Abstract

This study was conducted to investigate the impact of the self-concept-based Upanisad learning model integrated in blended learning on the development of character and creative thinking skills. This study adopted *a quasi-experimental design* with *a posttest-only control design*. The population of the study consisted of 90 students. The samples were taken by random sampling technique, with the total number of 60 students. Data collection methods used were tests and questionnaires. The test instrument used was in the form of a description test with 10 items and a questionnaire with a total of 30 items. The analysis technique employs MANOVA by SPSS. The results showed that learning with the self-concept based Upanisad learning model is greater. The result is shown from the mean scores of character and creative thinking skills. The result also show that learning with the self-concept based Upanisad learning model is greater. The results also show that learning with the self-concept based Upanisad learning model is more influential on students' character than the ability to think creatively. Based on these conclusions, it can be recommended that the self-concept-based Upanishad learning model can be used as an innovative learning model to improve the character and creative thinking skills.

Keywords: character, creative thinking skills, self-concept based upanisad learning model

### Contribution of this paper to the literature

The result of this research can be used as an innovative learning model integrated in blended learning which had an effect toward the character and creative thinking skills. The results showed that learning with the self-concept based Upanisad learning model simultaneously and partially impacts the character and creative thinking skills. It is shown from the mean scores of characters and creative thinking ability of students who are taught using the self-concept based Upanisad learning model is greater. The results also show that learning with the self-concept based Upanisad learning model is more influential on students' character than the ability to think creatively.

## 1. Introduction

In the educational process, moral character is an important aspect. The character of each student is built in a classroom setting that helps each learner to be able to achieve the learning objectives themselves. Character construction also aims to build dynamic thinking patterns in a unified learning space. Students who have a character within will be able to adapt to the nuances of a very dynamic era (Blotnicky et al., 2018; Chang & Hall, 2022; Farrell & Brunton, 2020; Kurdi et al., 2020; Pedro et al., 2018; Tunkkari et al., 2022). Good character will not be formed automatically. It must be developed continuously through teaching process, examples, continuous learning, and practice through character education. Continuous interaction within the family, community, school, and environment can be proceeded by character development through exchanging knowledge about the situation, socializing, and interacting with others (Bustami et al., 2017; Groenewoudt et al., 2019). The existence of character as a value also synchronizes between teachers and their students so that they can build sustainable development, which is related especially to students' cognitive, psychomotor and the development of an individual's competence, in essence, as a learner (Blayone et al., 2017; Burford et al., 2013; Kintu et al., 2017; Shernoff et al., 2017; Tomas et al., 2019; Zhou & Li, 2021). Character helps conceptualize the future challanges of the students as well as teaching them good and proper attitude that should be performed. Therefore, it is considered crucial to colaborate between characters and the insight of the future world reality in the digital transition age (Dumont & Ready, 2020; Hu et al., 2022; Kraus et al., 2021). So, it can be explained that the character internalization of studentsbecomes crucial.

The character will enable students to develop a growth mindset and future oriented, and take certain proper actions in the age of digital transformation. In other words, students with strong values will be able to compete in the middle of the twenty-first century challanges. The need for students to have creative thinking is one of the demands that should be achieved.

Creative thinking is a way of thinking that can result in various potential solutions (Febrianti et al., 2016; Sekar et al., 2015). It is also seen as the process used by someone to develop or formulate new ideas (Cintia et al., 2018; Tendrita et al., 2016). Creative thinking includes many higher-order thinking skills such as analysis, testing, communication problem solving and scientific process skills (Redifer et al., 2021; Yildiz & Guler Yildiz, 2021; Zhang et al., 2021). Creative thinking involves flexibility, fluency (Huang et al., 2020; Kassim et al., 2014), novelty, and elaboration (Hardy et al., 2017; Montag-Smit & Maertz, 2017). Creative thinking skills can train students to develop many ideas and opinions, ask questions, acknowledge the truth of opinions, and make students able to be open minded and responsive to different perspectives (Akpur, 2020; Redifer et al., 2021). Nowadays, improving creative thinking skills in the learning process is important. Students' creative thinking ability in the learning process can affect learning outcomes. The ability to think creatively will play an important role in achieving learning outcomes. Well-developed creative thinking abilities will influence the results of learning (Fatmawati et al., 2019; Hidayatulloh et al., 2020). Students who have high creative thinking skills will have good learning outcomes (Resien et al., 2020). The importance of creative thinking skills requires teachers to make a change in the learning process. The importance of character and the ability to think creatively requires an educator to develop a learning process that can develop these two aspects. Thus, character education is urgently needed. Character education becomes a priority because it builds social awareness of the reality of civilization and can create an effective action in the cycle of the social environment (Fisher, 2021; Hudde, 2022; Jacobson et al., 2019; Kahne & Bowyer, 2017; May & Elder, 2018; Pham et al., 2019; Roopesh, 2021; Wamsler, 2020). Character education, in other context, produces an environment that offers guidelines for thinking and acting in order to prevent the restriction of the students' ideas and creativity.by having exercises on creativity, a learner will be able to behave properly. It become the strong point in focusing on character education (Cheung & Xie, 2021; Fenwick & Edwards, 2016; Head, 2020; Kalogeropoulos et al., 2021; Peng et al., 2021; Tsang, 2020; Yin, 2022). It can be explained that the existence of character education helps students to build ethics, morals, skills and concentration of action to decide something as a result of self-improvisation.

The increasing frequency of brawls and other forms of violence in all social classes fill in the social phenomena carried on by the advance of technology. The presence of various racial, religious and intergroup conflicts indicates that the character of the Indonesian people is still weak and has not been able to handle issues of racial, religious, ethnic, and intergroup conflicts. It makes suspicions that lead hostility and cause the conflict easily. Character flaws will facilitate the formation of social conflicts (Nagovitsyn et al., 2018). The current globalization, which has become a reality today, has various implications which affect the formation of student character. The accessible information, the availability of different contents and the very rapid digital world expossure have the potential to degradee students' morality. Moral degradation creates students' character deficit. It means that the learning ethic, work ethic, sense of responsibility, tolerance, and other related aspects have also been eroded. The major and frequent problem on character recently is the low level of media and digital literacywhich unable to filter fake news spread. In addition, one character problem in this century is the phenomenon of xenophobia. Xenophobia is suspicion or social sentiment toward those who are different or who are considered "foreigners". Weak character is the result of the current learning practices that have not maximally linked the inter-cultural competence to the needs of students (Schlein et al., 2016). Through learning, students are supposed to get the understanding and internalization, and practical social experience, which will increase their awareness of social values, individual values, and national unity. They should also develop their mental processes (knowledge and understanding), including social skills and competence (Alabaş, 2018; Smith & Crowley, 2018).

It is necessary to create a local wisdom-based learning model in order to find a solution to these issues. Local wisdom is a factor that significantly affects community perceptions of human dignity. Fundamentally, a society's values are determined by local wisdom (Geertz, 1992). Local wisdom is a local way of thinking or an idea transferred from generation to generation and involves values including wisdom, creativity, and kindness (Kriyantono, 2014; Parmiti et al., 2021). The values of Balinese local wisdom are believed to contain the truth, which is followed by community members. This local wisdom, which can be called the community's noble values, serves as the basis for the philosophy of good behaviour toward harmonization (Suwastini et al., 2020). The existence of local content-based learning will have a positive impact on the learning process. The application of a learning model containing Balinese local wisdom can fill the gap between scientific literacy and student character in the learning process (Uge et al., 2019). The application of local wisdom-based learning can also construct student behaviour and character (Suhartini et al., 2019). The physics learning model based on Balinese local wisdom is effective in developing creative thinking and national character (Suastra, 2017). The principles of developed social-constructivist learning model provides great opportunities for lifelong learning with all the gained experience (Bosica et al., 2021). A Hindu text called Upanisad is one example of local wisdom that might be applied. Upanishad in modern education is seen as one of the teachings of Hinduism containing educational values, like doing a comprehensive visualization towards a certain object of study, and the values that oblige problems base instruction and research-based instruction (Suadnyana & Yogiswari, 2019). Upanisad becomes "instructions" for traditional cultural values to overcome the existing impacts. The fusion of the Upanisads into the aspect of character formation aims to reshape the basic ideas in building individual civilizations as learners. This aspect is also a symbolic aspect of creating learners who are always learning in the process of self formation (Bralic & Divjak, 2018; Heiberger et al., 2021; Shadle et al., 2017; Väliverronen & Saikkonen, 2021). Therefore, it can be formulated that the fusion between the Upanisad existence and pedagogy to form character is an action to create superior values in the survive in disruptive era.

Strengthening cultural values in the Upanisad will ultimately help students shape pedagogical practices, help students to enrich their learning experiences according to the social context, find the aspects of preference in learning and create an effective learning environment (Dichev & Dicheva, 2017; Dyson et al., 2021; Geng et al.,

2019; Holmlund et al., 2018; Ivemark & Ambrose, 2021; Roy & Brown, 2022). The existence of the Upanisad is an important aspect of character education because the Upanisad can create a motivational climate, which is able to create an "energy" to define a problem or a particular issue and encourage solving the problem. It is important always to be applied because it is able to build a conceptualization of continuous learning actions. Another more important thing is that the Upanisad is able to create various perspectives that make students have many conceptions and can be used to build their character as learners (Benner, 2021; Castaneda & Selwyn, 2018; Hansson & Ohman, 2021; Jones, 2022; Sleeter, 2018). In other words, it can be explained that the application of the Upanishads as an element of learning is an important factor in building student character. Because its existence can create fundamental values in shaping the mentality of students, especially in order to build their learning model based on self-concept which is integrated with blended learning on character development and creative thinking skills. The self-concept-based Upanisad model used has been developed and is feasible to use. This can be seen from the value of validity, practicality and effectiveness in the very good category. This learning model focuses more on Upanishad values in collaboration with self-concept. The availability of this learning model is expected to be able to contribute to character education to overcome character weaknesses and improve creative thinking skills.

# 2. Methods

This study used a quasi-experimental research with a posttest control group design (Rogers & Revesz, 2019). The research implementation process is grouped into experimental class and control class which both implement blended learning settings. The experimental group was given treatment with the self-concept based upanisad learning model. Meanwhile, the control group was taught by learning without the self-concept based upanisad learning model. The steps are taken in learning with the self-concept based upanisad learning model. The steps are taken in learning with the self-concept based upanisad learning model. The steps are taken in learning with the self-concept based upanisad learning model. The steps are taken in learning with the self-concept based upanisad learning model. The steps are taken in learning with the self-concept based upanisad learning model. The steps are taken in learning with the self-concept based upanisad learning model. The steps are taken in learning with the self-concept based upanisad learning model. The steps are taken in learning the spiritual path by Hindu priest and meditation experts; Pre-test of students' self-concept and character quality through questionnaires, interviews and observations; Cultivation of self-concept and character education through meditation learning materials, both theory and practice that prioritizes exercises; Implementation of the learning strategy of sitting close to a spiritual teacher (meditation teacher), a sacred learning condition, to receive the secrets of religious-philosophical meditation; Post-test with authentic assessment using: diary, observation, interview and performance test; Final initiation (Samawartana) is the final process of learning, as a sign that the perfection of knowledge, attitudes and skills in the field of meditation has been achieved.

Both groups will be given a post-test to determine the differences in character and creative thinking skills between the control and experimental groups. The data to be obtained in this study are: the character (Y1) of the Experiment class; Character (Y1) Control class; Creative thinking skills (Y2) in the Experiment class; Creative thinking skills (Y2) in the Control class. The trial was conducted in the Hindu Religious Education Study Program (S1), involving 90 fifth semester students. Before selecting the two classes, an equivalence test was conducted using One Way-ANOVA (Anava-A) analysis using the SPSS 26.0 for Windows application. After the population equivalence test of 90 people was carried out, a random sampling technique was used to determine the sample class. Each class consisted of 30 people in the control class and experimental class. In this study, the data collection process used was test and questionnaire.

The test was conducted to measure the creative thinking skills of students. This test was developed according to the material given. The test developed is a essay test that consists of 10 questions at the C4-C6 level. The steps are as follows; 1) create a test instrument grid; 2) make questions in the form of descriptions; 3) consult the grid and questions to the experts. The developed grid follows the indicators of creative thinking ability. The creative thinking skills instrument grid is shown in Table 1. In testing the validity of the creative thinking ability test instrument, it is necessary to test the validity of the instrument items, the validity of the instrument content, the reliability of the test, the level of difficulty of the test items, and the level of difficulty of the test equipment. Testing the validity of the items of the creative thinking ability test instrument was carried out using the CVR formula. The CVR results from the calculation of each instrument item are 1, and the total CVR of all the creative thinking ability test instrument items is obtained by 10 and can be declared valid based on the validation provisions of each instrument item in the CVR formula. The content validity test of the creative thinking ability test instrument was carried out using the CVI formula with the result that the CVI value was 1 and the creative thinking ability test instrument was declared very good based on the content validation provisions of the entire instrument in the CVI formula. The reliability test of the creative thinking ability test whose data is in the form of polytomies using the Alpha Coefficient formula with the results obtained is 0.87 and is in the range of  $0.60 < r11 \le 0.87$ . Thus, the reliability of the creative thinking ability test is at a high criterion. The test items' difficulty level for the ability to think creatively obtained the results that of the 10 questions, 4 questions were on the medium criteria and 6 were on the high criteria. In comparison, the level of difficulty of a test device is in the difficult criteria.

Table 1. Indicators of Creative Thinking Ability				
Dimension	Indicators			
Generate original ideas	<ol> <li>The resulting answer is different from the expected answer.</li> </ol>			
	2. The resulting answers contain complex thinking skills consisting of			
	multidisciplinary science			
Produce original works and actions	1. Produce unusual works or actions			
_	2. Produce works or actions that describe multidisciplinary science			
Have the flexibility of thinking in	1. Having the ability to think openly is not limited to one standard solution			
finding alternative solutions to	2. Have flexible thinking skills in combining several disciplines to solve			
problems	problems 25			

The method of collecting data is in the form of a questionnaire to measure character. It is in the form of a closed questionnaire, the form of the character questionnaire uses a Likert model rating scale, that each item is equipped with a choice of 30 answers, namely: Very Appropriate (SS), Appropriate (S), Unappropriate (TS), Very unappropriate (STS). The questionnaire was developed from the character dimensions, namely religious, honest,

disciplined, democratic, caring, curious, and responsible dimensions. Of these 7 dimensions, it will be developed into 25 indicators 30 statements. A complete character grid is described in Table 2. In testing the validity of the character questionnaire instrument, it is necessary to test the validity of the instrument items, the validity of the instrument's content, and the reliability. Testing the validity of the contents of the questionnaire by using the CVR formula. The CVR result of the calculation of each instrument item is 1, and the total CVR of all character instrument items is 30. It can be declared valid based on the validation provisions of each instrument item in the CVR formula. Testing the validity of the contents of the questionnaire with SPPS obtained 0.87, which is classified as very strong. Testing the reliability of the questionnaire with SPSs, the analysis results in the Cronbach's Alpha value of 0.93 which means that the developed questionnaire is very reliable.

### Table 2. Character Instrument Indicators

Dimension	Indicators
Religion	Always pray
0	Always say thanks for God's blessings
	Expressing admiration for God's greatness
Honest	Say something true even if it's bitter
	Avoid defrauding, cheating, plagiarism, or stealing
	Have the courage to show something right
	Trustworthy does something it says
Discipline	Compliant and obedient to the time set by the organization/school
	Obey the applicable regulations without feeling forced
	Commitment and loyalty to the assigned task/job
Democratic	Think positively in every association with colleagues
	Show respect and respect any differences of opinion
	Listen and hear to every view even though it is different from personal perception
	Avoid treatment that is harassing and demeaning, including other students who have physical and mental
	disabilities
Curiosity	Ask question
	Digging, tracing and investigating
	Interested in various things that have not been found the answer
Care	Helping people in need
	Doing social activities to help people in need
	Caring for the school environment
	Throw garbage in its place
	Turning off the water faucet that pours water
Responsibilit	Carry out any work that becomes
у	responsibility
	Carry out individual tasks well
	Accept the risk of every action taken

This research's data analysis method is descriptive and inferential statistical. The descriptive analysis carried out in this study was processed with the help of SPSS 26.0 for Windows and what was analyzed was post-test data. The values sought in the statistical test include the mean, deviation standard, maximum and minimum values. Meanwhile, for inferential analysis, inferential statistics were used using the MANOVA test for post-test data. Prior to the Manova test, the prerequisite test was carried out using Kolmogorov-Smirnov, the homogeneity test with Levene Statistic and Box's Test of Equality of Covariance Matrices, and the linearity test aimed to determine whether there was a linear relationship in each of the analyzed dependent variables. The MANOVA test and the prerequisite test were carried out with the help of SPSS 26.0 for Windows.

## 3. Results and Discussion

### Result

After the students are taught according to the learning design that has been made, namely learning with the self-concept based Upanisad learning model, the results of descriptive analysis show that there is a significant influence on the application of learning with the self-concept based Upanisad learning model. Complete results of the descriptive analysis are shown in Table 3. The descriptive analysis results show differences in the character and creative thinking abilities of students who are taught by learning model. The data show from the difference in character scores of 4.67 in which, the average value of the character of students who are taught by self-concept based Upanisad learning model. Meanwhile, the creative thinking ability shows a difference score of 2.47 where the average score of the creative thinking ability of students who are taught by the self-concept-based Upanisad learning model is greater than the ability of students who are taught by the self-concept based Upanisad learning model is greater than the ability to think creatively.

<b>Table 3.</b> Results of descriptive analysis of character and creative thinking	r skills	ski
--	----------	-----

Treatment	Dependent Varia	ble Mean	Std. Deviation	Min.	Max.	Range
Learning with self-concept based Upanisad learning	Character	87.30	7.51	71.00	99.00	28.00
model	Creative think skills	ing 84.97	5.57	71.00	94.00	23
Learning without self-	Character	82.63	7.51	68	95	27
concept based Upanisad learning model	Creative think skills	ing 82.50	6.42	71	93	22

© 2022 by the authors; licensee Asian Online Journal Publishing Group

4

Prerequisite analysis tests include tests for normality of data distribution, homogeneity of variance test, multivariate homogeneity test, and linearity test for the dependent variable. The first prerequisite test was the normality test with the Kolmogorov-Smirnov. The results of the analysis show that all data of the groups are normally distributed, and it can be indicated by Sig. value of > 0.05, which is presented in Table 4. After the normality conditions are met, the following prerequisite test is the homogeneity test. In this study, the homogeneity test was carried out with two analyses: the homogeneity of variance test with Levene's Test of Equality and the multivariate homogeneity test with Box's Test of Equality of Covariance Matrices.

Table 4. Results of Normality Analysis						
	Learning Approach	Kolmogorov-Smirnov				
Learning Approach		Statistic	df	Sig.		
Character	Learning with the self-concept based Upanisad learning model	0.10	30	0.20		
	Learning without the self-concept based Upanisad learning model	0.11	30	0.20		
	Learning with self-concept based Upanisad learning model	0.13	30	0.20		
Skills	Learning without self-concept based Upanisad learning model	0.10	30	0.20		

The results of the homogeneity analysis carried out show the same meaning, such as the research data derived from homogeneous data groups, and it can be seen from the sig value, each test showed a value of more than 0.05. Value of Sig. Levene's Test of Equality test is 0.99 for the character, while the value of Sig. Creative thinking ability of 0.98. Meanwhile, the homogeneity test using Box's Test of Equality of Covariance Matrices obtained Sig. of 0.13 with an F value of 1.87. The next prerequisite test is the linearity test, which aims to determine whether there is a linear relationship in each of the analyzed dependent variables. The results of the analysis show that the value of Sig. on Deviation from Linearity of 0.86 > 0.05 means a linear relationship between character data and creative thinking skills. The prerequisite test for MANOVA analysis has been fulfilled, the research data obtained are typically distributed and homogeneous so that hypothesis testing with Manova can be carried out. The results of the complete analysis are described in Table 5 and Table 6.

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	1.00	$9535.67^{b}$	2.00	57.00	0.00
	Wilks' Lambda	0.00	$9535.67^{b}$	2.00	57.00	0.00
	Hotelling's Trace	334.56	$9535.67^{b}$	2.00	57.00	0.00
	Roy's Largest Root	334.59	$9535.67^{b}$	2.00	57.00	0.00
Treatment	Pillai's Trace	0.13	4.10 <sup>b</sup>	2.00	57.00	0.09
	Wilks' Lambda	0.87	4.10 <sup>b</sup>	2.00	57.00	0.02
	Hotelling's Trace	0.14	4.10 <sup>b</sup>	2.00	57.00	0.02
	Roy's Largest Root	0.14	4.10 <sup>b</sup>	2.00	57.00	0.09

Based on Pillae Trace, Wilks' Lambda Hotelling's Trace, and Roy's Largest Root with shows that the F coefficient is 9535.67 with a Sig. 0.00. This means that there are differences on conceptual understanding and speed between students who are taught using Upanisad-based learning and students who are taught without Upanisad learning. The results of the Tests of Between-Subjects Effects analysis show an F value of 5.79 with Sig. 0.02 which is smaller than 0.05, this shows that there is an effect of learning with the self-concept-based upanisad learning model on character. The results of the Tests of Between-Subjects Effects analysis show an F value of 2.53 with Sig. 0.02 which is smaller than 0.05. This shows that there is a high influence between learning and the upanisad learning model based on self-concept on creative thinking abilities.

Table 6. Analysis results of Tests of Between-Subjects Effects						
Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected	Character	326.67	1	326.67	5.79	0.02
Model	Creative Thinking Skills	91.27	1	91.27	2.53	0.02
Intercept	Character	433160.07	1	433160.07	7675.29	0.00
	Creative Thinking Skills	420676.27	1	420676.27	11649.37	0.00
Treatment	Character	326.67	1	326.67	5.79	0.02
	Creative Thinking Skills	91.27	1	91.27	2.53	0.02
Error	Character	3273.27	58	56.44		
	Creative Thinking Skills	2094.47	58	36.11		
Total	Character	436760.00	60			
	Creative Thinking Skills	422862.000	60			
Corrected	Character	3599.93	59			
Total	Creative Thinking Skills	2185.73	59			

#### Discussion

The results showed that learning with the self-concept based Upanisad learning model simultaneously or partially impacts the character and creative thinking skills. It is inseparable from how learning is carried out. The Upanisad, which is used as a learning model, can be also used as a solution to achieve learning objectives. It is because the Upanishads provide systematic guidance in creating conducive learning conditions. The Upanisad is used as a prototype in the learning process because this holy book contains several stages that can be applied before

starting to learn. One of the things taught in it is the process of meditation. Meditation becomes an action to focus on silence, with concentration, a learner will become calmer, and it easier to focus his mind or facilitate concentration. While meditating, a learner will be ready to receive any lessons or material that will be given. It can be explained that the ideas contained in religious literature and whose value is taken to be embedded are essential. Since the idea of religion provides value, the guide creates a praxis or action as well as a concept to improve the technical aspect. Moreover, Bali, predominantly Hindu, must take the essence of the Upanisad teachings to be implanted as a guidance for action, especially in learning. In other words, the value of Hinduism is not only cultural but intellectual. Especially in the global reality, local wisdom must still be internalized (Collier & Stewart, 2021; Marianno et al., 2022; Puspitasari, 2017). It can be explained that the existence of local wisdom can be used as a formula to embed pedagogical values in order to face an increasingly dynamic global reality.

The existence of the Upanishad and the teachings adopted in the learning process also has a very important meaning in creating effectiveness and a good learning environment. It is because the Upanishad teaches that students must sit or place themselves close to the educator as a source of information if they want to increase their understanding and improve their cognition (according to the terminological imprint, which means sitting near the teacher's feet). The terminology and teachings contained in the Upanishad also teach that a student or learner who is currently studying must concentrate or concentrate his mind fully to absorb as much knowledge as possible. It shows an in-depth perspective on efforts to build motivation, learning experiences, and encouragement to make oneself successful, especially in the learning process. The religious element's pedagogical idea is a fundamental aspect of building discipline and increasing self-reflection. In addition, pedagogical idea in religious elements also help students interpreted the reality they face (Estapa & Tank, 2017; Fidalgo et al., 2020; Roberts et al., 2018). In other words, the Upanishad, as elements of Hinduism, provide perspectives and values to optimize the learning process.

Therefore, aspects in the Upanisad that can be used as a guide for thinking or acting in order to create a learning commitment between students and educators are the application of the principles of curiosity (*Tapasa*), the concentration of attention as prospective teachers (*Brahmacaryena*) and trust (*Shraddhaya*). The process of focusing attention in the learning process at the Hindu Religious Education Study Program, STKIP Agama Hindu of Singaraja, has not been optimally carried out. It is because in the meditation process, as a process of focusing the mind, the elements of *Tapasa* (curiosity) have not been internalized (focusing attention as a prospective Hindu religion teacher) and *Shraddhaya* (trust) between students and educators. In other words, between educators and students, they must establish interdependent relationships to develop these three characters. Upanisad, which is used as a learning model, emphasizes not only the achievement of learning objectives. It coincides with the table presented above, that reforming character from bad to good character requires self-commitment, followed up with implementation. The self-commitment instilled through Upanisad values explains that the learning process is a process to create capitalization and consistency and an effort to build character based on the principle of curiosity.

The aspects embedded in this Upanisad also show a discourse that learning can be carried out when the individual who will learn is ready to receive the lesson. It is the reason for using the existence of the Upanisad is stated with Atha or an important element to improve the quality of learning. From a holistic point of view, the Upanisad teach the concept of naciketa or a principle about an effort or an action to continue learning oneself, in traditional educational institutions. In other words, it can be explained that the Likert Scale results, which still show a minimum result, can be optimized with values, ideas, implementations, or Upanisad-based learning modules. Increasing trust is important because it fosters participation in learning subjects and creates bonds between them. It is an essential thing that must be done on an ongoing basis because it can be a foundation in dealing with the dynamics of reality, especially in the world of education. Therefore, it is necessary to carry out and maintain the paradigm of education that integrates pedagogical and religious principles to encourage a competitive attitude in each learner and learning environment (Chittum et al., 2017; Cooper et al., 2018; Greenland et al., 2022; Ruz & Schunn, 2018). In other words, if a learner's motivation, interdependent relationships, and competitive spirit grow, the effort to accumulate information and learning motivation will also increase.

Using Upanisad values can build the learner's character because, in the Upanisad tradition, there is an orientation to see, define, understand and try to live life. The realities of life, dynamics in the learning process, and actions to improvise are explored with various approaches, such as observation, theory, practice, or visualization, that are understood integrally and comprehensively. This integral and comprehensive aspect is explored in totality, so it is very relevant in building one's character or learning mentality. All these things can be useful aspects of the learning process because the Upanisad teach aspects of Dharma Sadhana, namely the realization of teachings that stimulate students to improve themselves and obey what they are learning. It indicates that the Upanishads implicitly or explicitly teach about efforts to build character in each learner. It is following the statement of the character of each student built in a classroom setting that helps each learner to be able to achieve the learning objectives themselves. The formation of character can be initiated by continuous interaction between each other by exchanging information about the situation, socializing, and interacting within the family, community, school, and environment (Bustami et al., 2017; Groenewoudt et al., 2019). It is also an indication of the creation of a quality study space, with the hope that there will be motivational construction from individuals as homo academics in understanding existing phenomena and creating reflection as a vehicle for contemplation (Dare et al., 2018; Eze et al., 2018; Mercader & Gairin, 2020). In other words, it can be explained that the fusion of Hindu religious values into the learning aspect provides a psycho-pedagogical nuance and makes the education and learning process can be successful if various ideas support it.

The existence of character as a value also synchronizes between teachers and students so that they can build strong character pillars, especially those relating to cognitive and psychomotor of the students, and develop an individual's competence, in essence, as a learning creature (Blayone et al., 2017; Burford et al., 2013; Kintu et al., 2017; Shernoff et al., 2017; Tomas et al., 2019; Zhou & Li, 2021). Students who have the character will be able to adapt to the nuances of a very dynamic era (Blotnicky et al., 2018; Chang & Hall, 2022; Farrell & Brunton, 2020; Kurdi et al., 2020; Pedro et al., 2018; Tunkkari et al., 2022). In addition, the existence of good character will be able

to make students able to take part in good learning, which will certainly have an impact on the ability to think creatively. The ability to think creatively can be better formed because learning with the self-concept based Upanisad learning model provides a learning atmosphere in which an on-going learner must concentrate fully to absorb as much knowledge as possible. It shows an in-depth perspective on efforts to build motivation, learning experiences, and encouragement to make oneself successful, especially in the learning process. If the students focus on what is learned, they will be able to think creatively. Creative thinking skills can train students to develop many ideas and opinions, ask questions, acknowledge the truth of opinions, and make students able to be open and responsive towards different perspectives (Akpur, 2020; Antara et al., 2022; Redifer et al., 2021). It is recently important to improve creative thinking skills in the learning process. Students' creative thinking ability in the learning process can affect student learning outcomes. The ability to think creatively will play a role in achieving learning outcomes. Well-developed creative thinking skills will have an impact on learning outcomes (Fatmawati et al., 2019; Hidayatulloh et al., 2020). Students who have high creative thinking skills will have good learning outcomes (Resien et al., 2020). In the current learning process, teachers are required to be able to think creatively, productively, innovatively, proactively, and affectively. Those aspects are related with the development of attitudes (know why), skills (know how), and knowledge (know about what) in an integrative way (Murjani & Hamid, 2016; Setyorini & Rizqiana, 2017). By having interesting and varied activities, students can develop their creativity, especially the ability to think creatively. So, the existence of the Upanisad is very important because the reality of education is complex and multifactorial. Thus, values in the Upanisad are needed to achieve the learning objectives and character building. Upanisad values that can shape the character of students include Tapasa (curiosity), Brahmacaryena (focusing attention) and Shraddaya (trust) between students and educators. By internalizing these values consistently and gradually, the learning process, pedagogical goals, and elements of character-building will be achieved.

### 4. Conclusion

The results showed that learning with the self-concept based Upanisad learning model simultaneously or partially impacts the character and creative thinking skills. It is shown from the mean scores of characters and creative thinking ability of students who are taught using the self-concept based Upanisad learning model is greater. The results also show that learning with the self-concept based Upanisad learning model is more influential on students' character than the ability to think creatively. So, it can be recommended that the self-concept-based Upanishad learning model concept-based Upanishad learning model are used as one of the innovative learning models to improve the character and creative thinking skills.

# References

- Akpur, U. (2020). Critical, Re fl ective, Creative Thinking and Their Reflections on Academic Achievement. Thinking Skills and Creativity, 37(August). https://doi.org/10.1016/j.tsc.2020.100683.
- Alabaş, R. (2018). Study on the First Appearance of Social Studies in the Elementary School Program in Turkey. International Education Studies, 11(11), 95. https://doi.org/10.5539/ies.v11n11p95.
- Antara, I. G. W. S., Suma, K., & Parmiti, D. P. (2022). E-Scrapbook: Konstruksi Media Pembelajaran Digital Bermuatan Soal-soal Higher Order Thinking Skills. Jurnal Edutech Undiksha, 10(1), 11–20. https://doi.org/10.23887/jeu.v10i1.47559.
- Benner, D. (2021). On Justice in Pedagogical Contexts. ECNU Review of Education, 4(4), 669-685. https://doi.org/10.1177/2096531120933278.
- Blayone, T. J. B., Oostveen, R. Van, Barber, W., Giuseppe, M. Di, & Childs, E. (2017). Democratizing Digital Learning: Theorizing The Fully Online Learning Community Model. *International Journal of Educational Technology in Higher Education*, 14(1), 1–16. https://doi.org/10.1186/s41239-017-0051-4.
- Blotnicky, K. A., Odendaal, T. F., French, F., & Joy, P. (2018). A Study of The Correlation Between STEM Career Knowledge, Mathematics Self-Efficacy, Career Interests, and Career Activities on The Likelihood of Pursuing a STEM Career Among Middle School Students. *International Journal of STEM Education*, 5(1), 1–15. https://doi.org/10.1186/s40594-018-0118-3.
- Bosica, J., Pyper, J. S., & MacGregor, S. (2021). Incorporating problem-based Learning in a Secondary School Mathematics PreserviceTeacher Education Course. *Teaching and Teacher Education*, 102, 103335. https://doi.org/10.1016/j.tate.2021.103335.
- Bralic, A., & Divjak, B. (2018). Integrating MOOCs in Traditionally Taught Courses: Achieving Learning Outcomes With Blended Learning. International Journal of Educational Technology in Higher Education, 15(1), 1– 16. https://doi.org/10.1186/s41239-017-0085-7.
- Burford, G., Hoover, E., Velasco, I., Janouskova, S., Jimenez, A., Piggot, G., Podger, D., & Harder, M. K. (2013). Bringing The "Missing Pillar" Into Sustainable Development Goals: Towards Intersubjective Values-Based Indicators. Sustainability (Switzerland), 5(7), 3035–3059. https://doi.org/10.3390/su5073035.
- Bustami, Y., Corebima, A. D., Suarsini, E., & Ibrohim. (2017). The social attitude empowerment of biology students: Implementation JiRQA learning strategy in different ethnics. *International Journal of Instruction*, 10(3), 15-30. https://doi.org/10.12973/iji.2017.1032a.
- Castaneda, L., & Selwyn, N. (2018). More Than Tools? Making Sense of The Ongoing Digitizations of Higher Education. International Journal of Educational Technology in Higher Education, 15(1), 1-10. https://doi.org/10.1186/s41239-018-0109-y.
- Chang, C.-F., & Hall, N. C. (2022). Differentiating Teachers' Social Goals: Implications for Teacher-Student Relationships and Perceived Classroom Engagement. *AERA Open, 8*(1), 1–16. https://doi.org/10.1177/23328584211064916.
- Cheung, A. C. K., & Xie, C. (2021). Evidence-Based Reform in Education: Global Perspectives. ECNU Review of Education, 4(1), 3-6. https://doi.org/10.1177/2096531120984793.

Chittum, J. R., Jones, B. D., Akalin, S., & Schram, A. B. (2017). The Effects of an Afterschool STEM Program on

Students Motivation and Engagement. International Journal of STEM Education, 4(1), 1–16. https://doi.org/10.1186/s40594-017-0065-4.

- Cintia, N. I., Kristin, F., & Anugraheni, I. (2018). Penerapan Model Pembelajaran Discovery Learning Untuk Meningkatkan Kemampuan Berpikir Kreatif Dan Hasil Belajar Siswa. *Perspektif Ilmu Pendidikan, 32*(1), 67–75. https://doi.org/10.21009/pip.321.8.
- Collier, B., & Stewart, J. (2021). Privacy Worlds: Exploring Values and Design in The Development of the Tor Anonymity Network. Science Technology and Human Values, 20(10), 1–27. https://doi.org/10.1177/01622439211039019.
- Cooper, K. M., Downing, V. R., & Brownell, S. E. (2018). The Influence of Active Learning Practices on Student Anxiety in Large-Enrollment College Science Classrooms. *International Journal of STEM Education, 5*(1), 1–18. https://doi.org/10.1186/s40594-018-0123-6.
- Dare, E. A., Ellis, J. A., & Roehrig, G. H. (2018). Understanding Science Teachers Implementations of Integrated STEM Curricular Units Through a Phenomenological Multiple Case Study. *International Journal of STEM Education*, 5(1), 1–19. https://doi.org/10.1186/s40594–018-0101-z.
- Dichev, C., & Dicheva, D. (2017). Gamifying Education: What is Known, What is Believed and What Remains Uncertain: A Critical Review. In International Journal of Educational Technology in Higher Education (Vol. 14, Issue 1). International Journal of Educational Technology in Higher Education. https://doi.org/10.1186/s41239-017-0042-5.
- Dumont, H., & Ready, D. D. (2020). Do Schools Reduce or Exacerbate Inequality? How the Associations Between Student Achievement and Achievement Growth Influence Our Understanding of the Role of Schooling. *American Educational Research Journal*, 57(2), 728–774. https://doi.org/10.3102/0002831219868182.
- Dyson, B., Shen, Y., Xiong, W., & Dang, L. (2021). How Cooperative Learning Is Conceptualized and Implemented in Chinese Physical Education: A Systematic Review of Literature. ECNU Review of Education, 1–22. https://doi.org/10.1177/20965311211006721.
- Estapa, A. T., & Tank, K. M. (2017). Supporting Integrated STEM in The Elementary Classroom: A Professional Development Approach Centered on an Engineering Design Challenge. *International Journal of STEM Education*, 4(1), 1–16. https://doi.org/10.1186/s40594-017-0058-3.
- Eze, S. C., Eze, V. C. C., & Bello, A. O. (2018). The Utilisation of E-Learning Facilities In The Educational Delivery System of Nigeria: A Study of M-University. *International Journal of Educational Technology in Higher* Education, 15(1), 1–20. https://doi.org/10.1186/s41239-018-0116-z.
- Farrell, O., & Brunton, J. (2020). A Balancing Act: A Window Into Online Student Engagement Experiences. International Journal of Educational Technology in Higher Education, 17(1), 1–19. https://doi.org/10.1186/s41239-020-00199-x.
- Fatmawati, A., Zubaidah, S., Mahanal, S., & Sutopo. (2019). Critical Thinking, Creative Thinking, and Learning Achievement: How They are Related. *Journal of Physics: Conference Series*, 1417(1). https://doi.org/10.1088/1742-6596/1417/1/012070.
- Febrianti, Y., Djahir, Y., & Fatimah, S. (2016). Analisis Kemampuan Berpikir Kreatif Peserta Didik dengan Memanfaatkan Lingkungan pada Mata Pelajaran Ekonomi di SMA Negeri 6 Palembang. *Jurnal Profit, 3*(1), 121–127.
- Fenwick, T., & Edwards, R. (2016). Exploring the impact of digital technologies on professional responsibilities and education. European Educational Research Journal, 15(1), 117-131. https://doi.org/10.1177/1474904115608387.
- Fidalgo, P., Thormann, J., Kulyk, O., & Lencastre, J. A. (2020). Students Perceptions on Distance Education: A Multinational Study. *International Journal of Educational Technology in Higher Education*, 17(1), 1–18. https://doi.org/10.1186/s41239-020-00194-2.
- Fisher, D. (2021). Educational Leadership and the Impact of Societal Culture on Effective Practices. Journal of Research in International Education, 20(2), 134–153. https://doi.org/10.1177/14752409211032531.
- Geertz, C. (1992). Kebudayaan dan Agama. Kanisius Press.
- Geng, S., Law, K. M. Y., & Niu, B. (2019). Investigating Self-Directed Learning and Technology Readiness in Blending Learning Environment. International Journal of Educational Technology in Higher Education, 16(1), 1– 22. https://doi.org/10.1186/s41239-019-0147-0.
- Greenland, S., Saleem, M., Misra, R., & Mason, J. (2022). Sustainable Management Education and an Empirical Five-Pillar Model of Sustainability. *International Journal of Management Education*, 20(3), 1–18. https://doi.org/10.1016/j.ijme.2022.100658.
- Groenewoudt, A. Č., Rooks, G., & van Gool, P. J. R. (2019). When Problems Lead to Ideas: The Roles of Daily Vigor and Social Interactions. *Journal of Creative Behavior*, 53(3), 286–297. https://doi.org/10.1002/jocb.179.
- Hansson, P., & Ohman, J. (2021). Museum Education and Sustainable Development: A Public Pedagogy. European Educational Research Journal, 1–15. https://doi.org/10.1177/14749041211056448.
- Hardy, J. H., Ness, A. M., & Mecca, J. (2017). Outside the box: Epistemic curiosity as a predictor of creative problem solving and creative performance. *Personality and Individual Differences*, 104, 230–237. https://doi.org/10.1016/j.paid.2016.08.004.
- Head, G. (2020). Ethics in educational research: Review boards, ethical issues and researcher development. European Educational Research Journal, 19(1), 72–83. https://doi.org/10.1177/1474904118796315.
- Heiberger, R. H., Galvez, S. M.-N., & Farland, D. A. M. (2021). Facets of Specialization and Its Relation to Career Success: An Analysis of U.S. Sociology, 1980 to 2015. *American Sociological Review*, 86(6), 1164–1192. https://doi.org/10.1177/00031224211056267.
- Hidayatulloh, M. K. Y., Muslim, S., Rahmadyanti, E., Ismayati, E., & Kusumawati, N. (2020). Level of Creative Thinking Effect through Multiple Solution Task Type Problem-Solving On Learning Outcomes. Journal of Education, Teaching, and Learning Volume, 5(1), 177–184. https://doi.org/10.26737/jetl.v5i1.1821.
- Holmlund, T. D., Lesseig, K., & Slavit, D. (2018). Making Sense of "STEM education" in K-12 Contexts. International Journal of STEM Education, 5(32), 1–18. https://doi.org/https://doi.org/10.1186/s40594-018-

0127-2.

- Hu, X., Ortagus, J. C., Voorhees, N., Rosinger, K., & Kelchen, R. (2022). Disparate Impacts of Performance Funding Research Incentives on Research Expenditures and State Appropriations. *AERA Open*, 8(1), 1–24. https://doi.org/10.1177/23328584211071109.
- Huang, N., Chang, Y., & Chou, C. (2020). Effects of creative thinking , psychomotor skills , and creative self- e ffi cacy on engineering design creativity. *Thinking Skills and Creativity*, 37(July), 100695. https://doi.org/10.1016/j.tsc.2020.100695.
- Hudde, A. (2022). Educational Differences in Cycling: Evidence from German Cities. *Sociology*, 1–21. https://doi.org/10.1177/00380385211063366.
- Ivemark, B., & Ambrose, A. (2021). Habitus Adaptation and First-Generation University Students' Adjustment to Higher Education: A Life Course Perspective. Sociology of Education, 94(3), 191–207. https://doi.org/10.1177/00380407211017060.
- Jacobson, M. J., Levin, J. A., & Kapur, M. (2019). Education as a Complex System: Conceptual and Methodological Implications. *Educational Researcher*, 48(2), 112–119. https://doi.org/10.3102/0013189X19826958.
- Jones, B. D. (2022). Motivational Climate Predicts Student Evaluations of Teaching: Relationships Between Students Course Perceptions, Ease of Course and Evaluations of Teaching. *AERA Open*, 8(1), 1–17. https://doi.org/10.1177/23328584211073167.
- Kahne, J., & Bowyer, B. (2017). Educating for Democracy in a Partisan Age: Confronting the Challenges of Motivated Reasoning and Misinformation. *American Educational Research Journal*, 54(1), 3–34. https://doi.org/10.3102/0002831216679817.
- Kalogeropoulos, P., Russo, J. A., & Clarkson, P. (2021). Exploring Educator Values Alignment Strategies in an Intervention Context: The Emergence of the Beacon Strategy. ECNU Review of Education, 4(2), 327–348. https://doi.org/10.1177/2096531120923127.
- Kassim, H., Nicholas, H., & Ng, W. (2014). Using a multimedia learning tool to improve creative performance. *Thinking Skills and Creativity*, 13, 9–19. https://doi.org/10.1016/j.tsc.2014.02.004.
- Kintu, M. J., Zhu, C., & Kagambe, E. (2017). Blended learning effectiveness: the relationship between student characteristics, design features and outcomes. *International Journal of Educational Technology in Higher Education*, 14(1). https://doi.org/10.1186/s41239-017-0043-4.
- Kraus, S., Jones, P., Kailer, N., Weinmann, A., Chaparro-Banegas, N., & Roig-Tierno, N. (2021). Digital Transformation: An Overview of the Current State of the Art of Research. SAGE Open, 11(3), 1–15. https://doi.org/10.1177/21582440211047576.

Kriyantono, R. (2014). Teknik Praktis Riset Komunikasi (7th ed.). Kencana Prenada Media.

- Kurdi, G., Leo, J., Parsia, B., Sattler, U., & Emari, S. Al. (2020). A Systematic Review of Automatic Question Generation for Educational Purposes. *International Journal of Artificial Intelligence in Education*, 30(1), 121–204. https://doi.org/10.1007/s40593-019-00186-y.
- Marianno, B. D., Hemphill, A. A., Loures-Elias, A. P. S., Garcia, L., Cooper, D., & Coombes, E. (2022). Power in a Pandemic: Teachers Unions and Their Responses to School Reopening. AERA Open, 8(1), 1–16. https://doi.org/10.1177/23328584221074337.
- May, K. E., & Elder, A. D. (2018). Efficient, Helpful, or Distracting? A Literature Review of Media Multitasking in Relation to Academic Performance. *International Journal of Educational Technology in Higher Education*, 15(1), 1–17. https://doi.org/10.1186/s41239-018-0096-z.
- Mercader, C., & Gairin, J. (2020). University Teachers Perception of Barriers to The Use of Digital Technologies: The Importance of The Academic Discipline. *International Journal of Educational Technology in Higher Education*, 17(1), 1–14. https://doi.org/10.1186/s41239-020-0182-x.
- Montag-Smit, T., & Maertz, C. P. (2017). Searching outside the box in creative problem solving: The role of creative thinking skills and domain knowledge. *Journal of Business Research*, 81(July), 1–10. https://doi.org/10.1016/j.jbusres.2017.07.021.
- Murjani, A., & Hamid, A. (2016). Meningkatkan Kemampuan Berpikir Kreatif Dan Hasil Belajar Siswa Melalui Model Pembelajaran Generatif Pada Materi Larutan Penyangga. Jurnal Inovasi Pendidikan Sains, 7(2), 103– 108. https://doi.org/10.20527/quantum.v7i2.3573.
- Nagovitsyn, R. S., Bartosh, D. K., Ratsimor, A. Y., & Maksimov, Y. G. (2018). Formation of social tolerance among future teachers. *European Journal of Contemporary Education*, 7(4), 754–763. https://doi.org/10.13187/ejced.2018.4.754.
- Parmiti, D., Rediani, N., Antara, I., & Jayadiningrat, M. (2021). The Effectiveness of Local Culture-Integrated Science Learning Through Project Based Assessment on Scientific Attitudes and Science Process Skills of Elementary School Students. Jurnal Pendidikan IPA Indonesia, 10(3), 439–446. https://doi.org/10.15294/jpii.v10i3.31301.
- Pedro, L. F. M. G., Barbosa, C. M. M. de O., & Santos, C. M. das N. (2018). A Critical Review of Mobile Learning Integration in Formal Educational Contexts. *International Journal of Educational Technology in Higher Education*, 15(1), 1–15. https://doi.org/10.1186/s41239-018-0091-4.
- Peng, Z., Benner, D., Nikolova, R., Ivanov, S., & Peng, T. (2021). Ethical and Moral Competences of Upper Secondary Students: A Comparative Study. ECNU Review of Education, 4(4), 686–706. https://doi.org/10.1177/2096531120973958.
- Pham, L., Limbu, Y. B., Bui, T. K., Nguyen, H. T., & Pham, H. T. (2019). Does E-Learning Service Quality Influence E-Learning Student Satisfaction and Loyalty? Evidence from Vietnam. *International Journal of Educational Technology in Higher Education*, 16(1), 1–26. https://doi.org/10.1186/s41239-019-0136-3.
- Puspitasari, N. W. R. N. (2017). Power and religion: Geertz position of present-day Bali. Jurnal Kajian Bali (Journal of Bali Studies), 7(1), 249–258. https://doi.org/10.24843/JKB.2017.v07.i01.p13.
- Redifer, J. L., Bae, C. L., & Zhao, Q. (2021). Self-efficacy and performance feedback: Impacts on cognitive load during creative thinking. *Learning and Instruction*, 71(february 2021), 101395. https://doi.org/10.1016/j.learninstruc.2020.101395.

- Resien, R., Sitompul, H., & Situmorang, J. (2020). The Effect of Blended Learning Strategy and Creative Thinking of Students on the Results of Learning Information and Communication Technology by Controlling Initial Knowledge. Budapest International Research and Critics in Linguistics and Education (BirLE) Journal, 3(2), 879– 893. https://doi.org/10.33258/birle.v3i2.997.
- Roberts, T., Jackson, C., Schroeder, M. J. M., Bush, S. B., Maiorca, C., Cavalcanti, M., Schroeder, D. C., Delaney, A., Putnam, L., & Cremeans, C. (2018). Students Perceptions of STEM Learning After Participating in a Summer Informal Learning Experience. *International Journal of STEM Education*, 5(1), 1–14. https://doi.org/10.1186/s40594-018-0133-4.
- Rogers, J., & Revesz, A. (2019). Experimental and Quasi-Experimental. ResearchGate, July, 133-143.
- Roopesh, O. B. (2021). Educating 'Temple Cultures' Heterogeneous Worship and Hindutva Politics in Kerala. Sociological Bulletin, 70(4), 485–501. https://doi.org/10.1177/00380229211051042.
- Roy, S., & Brown, S. (2022). Higher Education in India in The Time of Pandemic, Sans a Learning Management System. AERA Open, 8(1), 1–15. https://doi.org/10.1177/23328584211069527.
- Ruz, P. V., & Schunn, C. D. (2018). The Nature of Science Identity and Its Role as The Driver of Student Choices. International Journal of STEM Education, 5(1), 1–12. https://doi.org/10.1186/s40594–018-0140-5.
- Schlein, C., Taft, R. J., & Ramsay, C. M. (2016). The Intersection of Culture and Behavior in Social Studies Classrooms. Journal of International Social Studies, 6(1), 128-142.
- Seibert, S. A. (2020). Problem-based Learning: A Strategy to Foster Generation Z's Critical Thinking and Perseverance. *Teaching and Learning in Nursing*, 29(September), 1–4. https://doi.org/10.1016/j.teln.2020.09.002.
- Sekar, D. K. S., Pudjawan, K., & Margunayasa, I. G. (2015). Pembelajaran Ipa Pada Siswa Kelas Iv Universitas Pendidikan Ganesha. *E-Journal PGSD Universitas Pendidikan Ganesha Jurusan PGSD*, 3(1), 1–11.
- Setyorini, N., & Rizqiana, S. (2017). Keefektifan Media Artikel Dalam Pembelajaran Menulis Naskah Pidato. 2(2), 137– 144. https://doi.org/10.32585/edudikara.v2i2.43.
- Shadle, S. E., Marker, A., & Earl, B. (2017). Faculty Drivers and Barriers: Laying The Groundwork for Undergraduate STEM Education Reform in Academic Departments. *International Journal of STEM Education*, 4(1), 1–13. https://doi.org/10.1186/s40594-017-0062-7.
- Shernoff, D. J., Sinha, S., Bressler, D. M., & Ginsburg, L. (2017). Assessing Teacher Education and Professional Development Needs for The Implementation of Integrated Approaches to STEM Education. *International Journal of STEM Education*, 4(1), 1–16. https://doi.org/10.1186/s40594-017-0068-1.
- Sleeter, C. (2018). Multicultural Education Past, Present, and Future: Struggles for Dialog and Power-Sharing Intercultural Education Multicultural Education Comes Into Being Twenty-Two Years and Two Emblematic Experiences Ago Elites React Neoliberal Multicultural Education? *International Journal of Multicultural Education*, 20(1), 5–20.
- Smith, W. L., & Crowley, R. M. (2018). Social Studies Needs (New) White People: The Case for Including Allies in the Curriculum. *The Social Studies*, 109(4), 202–214. https://doi.org/10.1080/00377996.2018.1515720.
- Suadnyana, I. bagus P. eka, & Yogiswari, K. S. (2019). Upanisad Perspektif Pendidikan Modern. Jurnal Pasupati, 6(2), 88–99. https://doi.org/10.37428/pspt.v6i2.136.
- Suastra, I. W. (2017). Balinese Local Wisdoms and their Implications in Science Education at School. International Research Journal of Management, IT & Social Sciences (IRJMIS), 4(2), 42~50. https://sloap.org/journals/index.php/irjmis/article/view/446.
- Suwastini, N. K. A., Dantes, G. R., Jayanta, I. N. L., & Suprihatin, C. T. (2020). Developing Storyline for Role-Playing Games Based on Balinese Folklore for Preserving Local Wisdom and Character Education. 394(Icirad 2019), 361– 366. https://doi.org/10.2991/assehr.k.200115.059.
- Tendrita, M., Mahanal, S., & Zubaidah, S. (2016). Pemberdayaan Keterampilan Berpikir Kreatif melalui Model Remap Think Pair Share. *Proceeding Biology Education Conference (ISSN: 2528-5742), 13*(1), 285–291.
- Tomas, L., Evans, N. (Snowy), Doyle, T., & Skamp, K. (2019). Are First Year Students Ready for a Flipped Classroom? A Case for a Flipped Learning Continuum. *International Journal of Educational Technology in Higher Education*, 16(1), 1–22. https://doi.org/10.1186/s41239-019-0135-4.
- Tsang, A. (2020). Enhancing learners' awareness of oral presentation (delivery) skills in the context of selfregulated learning. *Active Learning in Higher Education*, 21(1), 39–50. https://doi.org/10.1177/1469787417731214.
- Tunkkari, M., Aunola, K., Hirvonen, R., Silinskas, G., & Kiuru, N. (2022). A Person-Oriented Approach to Maternal Homework Involvement During the Transition to Lower Secondary School. *Learning and Individual Differences*, 97(5), 1–11. https://doi.org/10.1016/j.lindif.2022.102164.
- Väliverronen, E., & Saikkonen, S. (2021). Freedom of Expression Challenged: Scientists' Perspectives on Hidden Forms of Suppression and Self-censorship. *Science Technology and Human Values*, 46(6), 1172–1200. https://doi.org/10.1177/0162243920978303.
- Waite, L. H., Smith, M. A., & McGiness, T. P. (2020). Impact of a problem-based learning elective on performance in non-problem-based learning required courses. *Currents in Pharmacy Teaching and Learning*, 12(12), 1470– 1476. https://doi.org/10.1016/j.cptl.2020.07.015.
- Wamsler, C. (2020). Education for Sustainability: Fostering a More Conscious Society and Transformation Towards Sustainability. International Journal of Sustainability in Higher Education, 21(1), 112–130. https://doi.org/10.1108/IJSHE-04-2019-0152.
- Yildiz, C., & Guler Yildiz, T. (2021). Exploring the Relationship between Creative Thinking and Scientific Process Skills of Preschool Children. *Thinking Skills and Creativity*, 39(January), 100795. https://doi.org/10.1016/j.tsc.2021.100795.
- Yin, H. (2022). Empowering Student Learning in Higher Education: Pathways to Possibility. ECNU Review of Education, 1–6. https://doi.org/10.1177/20965311211073971.
- Zhang, M., Guo, M., & Xiao, B. (2021). Creative thinking and musical collaboration: Promoting online learning groups for aspiring musicians. *Thinking Skills and Creativity*, 42, 100947.

© 2022 by the authors; licensee Asian Online Journal Publishing Group

10

https://doi.org/10.1016/j.tsc.2021.100947. Zhou, L., & Li, J. (2021). Developing Core Competence With Project-Based Learning: Voices From Chinese High School Students Serving Visually Impaired Students. *ECNU Review of Education*, 1–7. https://doi.org/10.1177/20965311211005478.

 $\ensuremath{\mathbb{C}}$  2022 by the authors; licensee Asian Online Journal Publishing Group

The Integration of the Self-Concept-Based Upanisad Learning Model in Blended Learning and Its Impact on Character Development and Creative Thinking Skills

ORIGINALITY REPORT

3 SIMILA	<b>%</b> RITY INDEX	<b>26%</b> INTERNET SOURCES	21% publications	18% STUDENT PAPERS
PRIMAR	SOURCES			
1	Sciences	eholar.us		8%
2	Submitte Student Paper	ed to Universita	as Musamus M	erauke 7%
3	<b>journal.u</b> Internet Source	innes.ac.id		5%
4	Submitte Malaysia Student Paper	ed to University	r Tun Hussein (	Onn 2%
5	Setemer Widiartin of Blende Assessm Creative	udirta, I Wayan n, Ni Wayan Suk ni, Nyoman San ed Learning Ass ent toward Lea Thinking Skills' ging Technologi	kerti, Ni Ketut itiyadnya. "The sisted with Self arner Autonom ', International	Impact <u>-</u> y and Journal

6	asianonlinejournals.com	1%
7	ejnmmipharmchem.springeropen.com	<1 %
8	garuda.ristekdikti.go.id	<1 %
9	A Sukmawati, Sajidan, Harlita. "Students' Creative Thinking Skills of Learning Cell Metabolism Using Stim-Hots Model", Journal of Physics: Conference Series, 2021 Publication	<1 %
10	E A Nurdin, S Hussen, E I Pangastuti, D Lestari. "Improving students critical thinking skills using a research based practice on Tourism Geography Materials", IOP Conference Series: Earth and Environmental Science, 2019 Publication	<1 %
11	jurnal.unissula.ac.id	<1%
12	L Kurniawati, I S Farhana, R Miftah. "Improving students' mathematical intuitive thinking ability using analogy learning model", Journal of Physics: Conference Series, 2022 Publication	<1 %

- Anida Luthfiana, Alben Ambarita, Suwarjo Suwarjo. "Developing Worksheet Based on Multiple Intelligences to Optimize the Creative Thinking Students", JIPM (Jurnal Ilmiah Pendidikan Matematika), 2018 Publication
   Yi - Ching Chen, Yu - Shan Chang, Meng -Jung Chuang. "Virtual reality application influences cognitive load - mediated creativity components and creative performance in
  - engineering design", Journal of Computer Assisted Learning, 2021 Publication
  - Noble Arden Kuadey, Francois Mahama, Carlos Ankora, Lily Bensah et al. "Predicting students' continuance use of learning management system at a technical university using machine learning algorithms", Interactive Technology and Smart Education, 2022 Publication

<1 %

16	laris.univ-angers.fr Internet Source	<1 %
17	lingcure.org	<1 %
18	stemeducationjournal.springeropen.com	<1 %

"The Effect of SSCS Learning Model on Reflective Thinking Skills and Problem Solving Ability", European Journal of Educational Research, 2020 Publication



<1 %

<1%



19

20

21 Armando Maciel Toda. "Contributions for Gamification Design in Educational Contexts", Universidade de Sao Paulo, Agencia USP de Gestao da Informacao Academica (AGUIA), 2021 Publication

22 Dewa Gede Hendra Divayana, Agus Adiarta, P. Wayan Arta Suyasa. "Development of material contents and online assessment based on the SEVIMA EdLink platform for online learning of program evaluation subject during Covid-19 pandemic in Indonesia", Journal of Technology and Science Education, 2021 Publication



Hendri Hermawan Adinugraha. "INTEGRATION OF ISLAMIC EDUCATION VALUES TOWARDS THE "YATIMAN"

# TRADITION IN THE MONTH OF SURO IN PEKALONGAN", Zawiyah: Jurnal Pemikiran

# Islam, 2021

Publication

25	ejournal.undiksha.ac.id	<1%
26	repository.tudelft.nl Internet Source	<1%
27	repository.um-surabaya.ac.id	<1%
28	scholarworks.waldenu.edu	<1%
29	twj.ulm.ac.id	<1%
30	- Satinem, - Juwati. "Development of Teaching Materials of Poetry Writing Using Pictures for the Elementary Students", Advances in Language and Literary Studies, 2018	< <b>1</b> %
	Publication	

# AT UNIVERSITAS MURIA KUDUS", Humanities & Social Sciences Reviews, 2020

Publication

# 32

Shang Zhang. "Interactive environment for music education: developing certain thinking skills in a mobile or static interactive environment", Interactive Learning Environments, 2022 Publication

<1%

Fublication

Exclude quotes	Off	Exclude matches	Off
Exclude bibliography	On		

Journal of Education and e-Learning Research Vol. x, No. x, xx-xx, 2022 ISSN(E) 2410-9991: / ISSN(P) 2518-0169: DOI: © 2022 by the authors: licensee Asian Online Journal Publishing Group

# The Integration of the Self-Concept-Based Upanisad Learning Model in Blended Learning and Its Impact on Character Development and Creative Thinking Skills

I Wayan Suwendra<sup>1</sup> I Putu Suarnaya<sup>2</sup> I Wayan Widiana<sup>3</sup> Ni Luh Asli<sup>\*</sup>



1

<sup>1:24</sup>STKIP Agama Hindu, Singaraja, Indonesia. <sup>3</sup>Universitas Pendidikan Ganesha, Singaraja, Indonesia

# Abstract

This study was conducted to investigate the impact of the self-concept-based Upanisad learning model integrated in blended learning on the development of character and creative thinking skills. This study adopted a quasi-experimental design with a posttest-only control design. The population of the study consisted of 90 students. The samples were taken by random sampling technique, with the total number of 60 students. Data collection methods used were tests and questionnaires. The test instrument used was in the form of a description test with 10 items and a questionnaire with a total of 30 items. The analysis technique employs MANOVA by SPSS. The results showed that learning with the self-concept based Upanisad learning model is greater. The results also show that learning with the self-concept based Upanisad learning model is greater. The results also show that learning with the self-concept based Upanisad learning model is more influential on students' character than the ability to think creatively. Based on these conclusions, it can be recommended that the self-concept-based Upanishad learning model can be used as an innovative learning model to improve the character and creative thinking skills.

Keywords: Character, Creative thinking skills, Self-concept based upanisad learning model.

# Contribution of this paper to the literature

The result of this research can be used as an innovative learning model integrated in blended learning which had an effect toward the character and creative thinking skills. The results showed that learning with the self-concept based Upanisad learning model simultaneously and partially impacts the character and creative thinking skills. It is shown from the mean scores of characters and creative thinking ability of students who are taught using the self-concept based Upanisad learning model is greater. The results also show that learning with the self-concept based Upanisad learning model is more influential on students' character than the ability to think creatively.

# 1. Introduction

In the educational process, moral character is an important aspect. The character of each student is built in a classroom setting that helps each learner to be able to achieve the learning objectives themselves. Character construction also aims to build dynamic thinking patterns in a unified learning space. Students who have a character within will be able to adapt to the nuances of a very dynamic era (Blotnicky, Franz-Odendaal, French, & Joy, 2018; Chang & Hall, 2022; Farrell & Brunton, 2020; Kurdi, Leo, Parsia, Sattler, & Emari, 2020; Pedro, Barbosa, & Santos, 2018; Tunkkari, Aunola, Hirvonen, Silinskas, & Kiuru, 2022). Good character will not be formed automatically. It must be developed continuously through teaching process, examples, continuous learning, and practice through character education. Continuous interaction within the family, community, school, and environment can be proceeded by character development through exchanging knowledge about the situation, socializing, and interacting with others (Bustami, Corebima, & Suarsini, 2017; Groenewoudt, Rooks, & van Gool, 2019). The existence of character as a value also synchronizes between teachers and their students so that they can build sustainable development, which is related especially to students' cognitive, psychomotor and the development of an individual's competence, in essence, as a learner (Blayone, vanOostveen, Barber, DiGiuseppe, & Childs, 2017; Burford et al., 2013; Kintu, Zhu, & Kagambe, 2017; Shernoff, Sinha, Bressler, & Ginsburg, 2017). Character helps conceptualize the future challanges of the students as well as teaching them good and proper attitude that should be performed. Therefore, it is considered crucial to colaborate between characters and the insight of the future world reality in the digital transition age (Dumont & Ready, 2020; Hu, Ortagus, Voorhees, Rosinger, & Kelchen, 2022; Kraus et al., 2021). So, it can be explained that the character internalization of

**Commented [AF1]:** In this section you need to specify what makes this study original. What have you done differently that hasn't been done before? Your contribution shouldn't be more than 50 words

studentsbecomes crucial. The character will enable students to develop a growth mindset and future oriented, and take certain proper actions in the age of digital transformation. In other words, students with strong values will be able to compete in the middle of the twenty-first century challanges. The need for students to have creative thinking is one of the demands that should be achieved.

Creative thinking is a way of thinking that can result in various potential solutions (Febrianti, Djahir, & Fatimah, 2016; Sekar, Pudjawan, & Margunayasa, 2015). It is also seen as the process used by someone to develop or formulate new ideas (Cintia, Kristin, & Anugraheni, 2018; Tendrita, Mahanal, & Zubaidah, 2016). Creative thinking includes many higher-order thinking skills such as analysis, testing, communication problem solving and scientific process skills (Redifer, Bae, & Zhao, 2021; Yildiz & Yildiz, 2021; Zhang, Guo, & Xiao, 2021). Creative thinking involves flexibility, fluency (Huang, Chang, & Chou, 2020; Kassim, Nicholas, & Ng, 2014), novelty, and elaboration (Hardy, Ness, & Mecca, 2017; Montag-Smit & Maertz Jr, 2017). Creative thinking skills can train students to develop many ideas and opinions, ask questions, acknowledge the truth of opinions, and make students able to be open minded and responsive to different perspectives (Akpur, 2020; Redifer et al., 2021). Nowadays, improving creative thinking skills in the learning process is important. Students' creative thinking ability in the learning process can affect learning outcomes. The ability to think creatively will play an important role in achieving learning outcomes. Well-developed creative thinking abilities will influence the results of learning (Fatmawati, Zubaidah, & Mahanal, 2019; Hidayatulloh, Muslim, Rahmadyanti, Ismayati, & Kusumawati, 2020). Students who have high creative thinking skills will have good learning outcomes (Resien, Sitompul, & Situmorang, 2020). The importance of creative thinking skills requires teachers to make a change in the learning process. The importance of character and the ability to think creatively requires an educator to develop a learning process that can develop these two aspects. Thus, character education is urgently needed. Character education becomes a priority because it builds social awareness of the reality of civilization and can create an effective action in the cycle of the social environment (Fisher, 2021; Hudde, 2022; Jacobson, Levin, & Kapur, 2019; Kahne & Bowyer, 2017; May & Elder, 2018; Pham, Limbu, Bui, Nguyen, & Pham, 2019; Roopesh, 2021; Wamsler, 2020). Character education, in other context, produces an environment that offers guidelines for thinking and acting in order to prevent the restriction of the students' ideas and creativity.by having exercises on creativity, a learner will be able to behave properly. It become the strong point in focusing on character education (Cheung & Xie, 2021; Fenwick & Edwards, 2016; Head, 2020; Kalogeropoulos, Russo, & Clarkson, 2021; Peng, Benner, Nikolova, Ivanov, & Peng, 2021; Tsang, 2020; Yin, 2022). It can be explained that the existence of character education helps students to build ethics, morals, skills and concentration of action to decide something as a result of self-improvisation.

The increasing frequency of brawls and other forms of violence in all social classes fill in the social phenomena carried on by the advance of technology. The presence of various racial, religious and intergroup conflicts indicates that the character of the Indonesian people is still weak and has not been able to handle issues of racial, religious, ethnic, and intergroup conflicts. It makes suspicions that lead hostility and cause the conflict easily. Character flaws will facilitate the formation of social conflicts (Nagovitsyn, Bartosh, Ratsimor, & Maksimov, 2018). The current globalization, which has become a reality today, has various implications which affect the formation of student character. The accessible information, the availability of different contents and the very rapid digital world expossure have the potential to degradee students' morality. Moral degradation creates students' character deficit. It means that the learning ethic, work ethic, sense of responsibility, tolerance, and other related aspects have also been eroded. The major and frequent problem on character recently is the low level of media and digital literacywhich unable to filter fake news spread. In addition, one character problem in this century is the phenomenon of xenophobia. Xenophobia is suspicion or social sentiment toward those who are different or who are considered "foreigners". Weak character is the result of the current learning practices that have not maximally linked the inter-cultural competence to the needs of students (Schlein, Taft, & Ramsay, 2016). Through learning, students are supposed to get the understanding and internalization, and practical social experience, which will increase their awareness of social values, individual values, and national unity. They should also develop their mental processes (knowledge and understanding), including social skills and competence (Alabas, 2018; Smith & Crowley, 2018).

It is necessary to create a local wisdom-based learning model in order to find a solution to these issues. Local wisdom is a factor that significantly affects community perceptions of human dignity. Fundamentally, a society's values are determined by local wisdom (Geertz, 1992). Local wisdom is a local way of thinking or an idea transferred from generation to generation and involves values including wisdom, creativity, and kindness (Kriyantono, 2014; Parmiti, Rediani, Antara, & Jayadiningrat, 2021). The values of Balinese local wisdom are believed to contain the truth, which is followed by community members. This local wisdom, which can be called the community's noble values, serves as the basis for the philosophy of good behaviour toward harmonization (Suwastini, Dantes, Jayanta, & Suprihatin, 2020). The existence of local content-based learning will have a positive impact on the learning process. The application of a learning model containing Balinese local wisdom can fill the gap between scientific literacy and student character in the learning process (Uge et al., 2019). The application of local wisdom-based learning can also construct student behaviour and character (Suhartini et al., 2019) physics learning model based on Balinese local wisdom is effective in developing creative thinking and national character (Suastra, 2017). The principles of developed social-constructivist learning model provides great opportunities for lifelong learning with all the gained experience (Bosica, Pyper, & MacGregor, 2021). A Hindu text called *Upanisad* is one example of local wisdom that might be applied. *Upanishad* in modern education is seen as one of the teachings of Hinduism containing educational values, like doing a comprehensive visualization towards a certain object of study, and the values that oblige problems base instruction and research-based instruction (Suadnyana, Bagus, & Yogiswari, 2019). Upanisad becomes "instructions" for traditional cultural values to overcome the existing impacts. The fusion of the Upanisads into the aspect of character formation aims to reshape the basic ideas in building individual civilizations as learners. This aspect is also a symbolic aspect of creating learners who are always learning in the process of self formation (Bralić & Divjak, 2018; Heiberger, Munoz-Najar Galvez, & McFarland, 2021; Shadle, Marker, & Earl, 2017; Väliverronen & Saikkonen, 2021).

Therefore, it can be formulated that the fusion between the Upanisad existence and pedagogy to form character is an action to create superior values in the survive in disruptive era.

Strengthening cultural values in the Upanisad will ultimately help students shape pedagogical practices, help students to enrich their learning experiences according to the social context, find the aspects of preference in learning and create an effective learning environment (Dichev & Dicheva, 2017; Dyson, Shen, Xiong, & Dang, 2022; Geng, Law, & Niu, 2019; Holmlund, Lesseig, & Slavit, 2018; Ivemark & Ambrose, 2021; Roy & Brown, 2022). The existence of the Upanisad is an important aspect of character education because the Upanisad can create a motivational climate, which is able to create an "energy" to define a problem or a particular issue and encourage solving the problem. It is important always to be applied because it is able to build a conceptualization of continuous learning actions. Another more important thing is that the Upanisad is able to create various perspectives that make students have many conceptions and can be used to build their character as learners (Benner, 2021; Castaneda & Selwyn, 2018; Hansson & Öhman, 2022; Jones, Miyazaki, Li, & Biscotte, 2022; Sleeter, 2018). In other words, it can be explained that the application of the Upanishads as an element of learning is an important factor in building student character. Because its existence can create fundamental values in shaping the mentality of students, especially in order to build their learning ethos. This description is the background of the research that aims to analyze the impact of the Upanisad learning model based on self-concept which is integrated with blended learning on character development and creative thinking skills. The self-concept-based Upanisad model used has been developed and is feasible to use. This can be seen from the value of validity, practicality and effectiveness in the very good category. This learning model is expected to be able to contribute to character education with self-concept. The availability of this learning model is expected to be able to contribute to character education to overcome character wea

# 2. Methods

This study used a quasi-experimental research with a posttest control group design (Rogers & Revesz, 2019). The research implementation process is grouped into experimental class and control class which both implement blended learning settings. The experimental group was given treatment with the self-concept based upanisad learning model. Meanwhile, the control group was taught by learning without the self-concept based upanisad learning model. The steps are taken in learning with the self-concept based upanisad learning model. The steps are taken in learning with the self-concept based upanisad learning model. The steps are taken in learning the spiritual path by Hindu priest and meditation experts; Pre-test of students' self-concept and character quality through questionnaires, interviews and observations; Cultivation of self-concept and character education through meditation learning materials, both theory and practice that prioritizes exercises; Implementation of the learning strategy of sitting close to a spiritual teacher (meditation teacher), a sacred learning condition, to receive the secrets of religious-philosophical meditation; Post-test with authentic assessment using: diary, observation, interview and performance test; Final initiation (Samawartana) is the final process of learning, as a sign that the perfection of knowledge, attitudes and skills in the field of meditation has been achieved.

Both groups will be given a post-test to determine the differences in character and creative thinking skills between the control and experimental groups. The data to be obtained in this study are: the character (Y1) of the Experiment class; Character (Y1) Control class; Creative thinking skills (Y2) in the Experiment class; Creative thinking skills (Y2) in the Control class. The trial was conducted in the Hindu Religious Education Study Program (S1), involving 90 fifth semester students. Before selecting the two classes, an equivalence test was conducted using One Way-ANOVA (Anava-A) analysis using the SPSS 26.0 for Windows application. After the population equivalence test of 90 people was carried out, a random sampling technique was used to determine the sample class. Each class consisted of 30 people in the control class and experimental class. In this study, the data collection process used was test and questionnaire.

The test was conducted to measure the creative thinking skills of students. This test was developed according to the material given. The test developed is a essay test that consists of 10 questions at the C4-C6 level. The steps are as follows; 1) create a test instrument grid; 2) make questions in the form of descriptions; 3) consult the grid and questions to the experts. The developed grid follows the indicators of creative thinking ability. The creative thinking skills instrument grid is shown in Table 1. In testing the validity of the creative thinking ability test instrument, it is necessary to test the validity of the instrument items, the validity of the instrument content, the reliability of the test, the level of difficulty of the test items, and the level of difficulty of the test equipment. Testing the validity of the items of the creative thinking ability test instrument was carried out using the CVR formula. The CVR results from the calculation of each instrument item are 1, and the total CVR of all the creative thinking ability test instrument items is obtained by 10 and can be declared valid based on the validation provisions of each instrument item in the CVR formula. The content validity test of the creative thinking ability test instrument was declared very good based on the content validation provisions of the entire instrument in the CVI formula. The reliability test of the creative thinking ability test whose data is in the form of polytomies using the Alpha Coefficient formula with the results obtained is 0.87 and is in the range of  $0,60 < r11 \le 0,87$ . Thus, the reliability of the creative thinking ability test is at a high criterion. The test items' difficult vel for the ability to think creatively obtained the results that of the 10 questions, 4 questions were on the medium criteria and 6 were on the high criteria. In comparison, the level of difficult of a test device is in the difficult criteria.

on the high criteria. In comparison, the level of difficulty of a test device is in the difficult criteria. The method of collecting data is in the form of a questionnaire to measure character. It is in the form of a closed questionnaire, the form of the character questionnaire uses a Likert model rating scale, that each item is equipped with a choice of 30 answers, namely: Very Appropriate (SS), Appropriate (S), Unappropriate (TS), Very unappropriate (STS). The questionnaire was developed from the character dimensions, namely religious, honest, disciplined, democratic, caring, curious, and responsible dimensions. Of these 7 dimensions, it will be developed into 25 indicators 30 statements. A complete character grid is described in Table 2. In testing the validity of the character questionnaire instrument, it is necessary to test the validity of the instrument items, the validity of the instrument's content, and the reliability. Testing the validity of the contents of the questionnaire by using the CVR Commented [AF2]: You have used this term throughout the document, but have not defined it. Please define it for the benefit of your reader. CVR CVR CVR CVI SS STS SPSS MANOVA STKIP

**Commented [A3]:** Please rewrite following sentence in order to fix the issue of text overlap.

**Commented [A4]:** Please rewrite following sentence in order to fix the issue of text overlap.

formula. The CVR result of the calculation of each instrument item is 1, and the total CVR of all character instrument items is 30. It can be declared valid based on the validation provisions of each instrument item in the CVR formula. Testing the validity of the contents of the questionnaire with SPPS obtained 0.87, which is classified as very strong. Testing the reliability of the questionnaire with SPSS, the analysis results in the Cronbach's Alpha value of 0.93 which means that the developed questionnaire is very reliable.

Table 1. Indicators of creative thinking ability.				
Dimension	Indicators			
Generate original ideas	<ol> <li>The resulting answer is different from the expected answer.</li> </ol>			
	2. The resulting answers contain complex thinking skills consisting of			
	multidisciplinary science			
Produce original works and actions	<ol> <li>Produce unusual works or actions</li> </ol>			
	2. Produce works or actions that describe multidisciplinary science			
Have the flexibility of thinking in finding	1. Having the ability to think openly is not limited to one standard			
alternative solutions to problems	solution			
	2. Have flexible thinking skills in combining several disciplines to solve			
	problems			

	Table 2. Character Instrument Indicators.
Dimension	Indicators
Religion	Always pray
	Always say thanks for God's blessings
	Expressing admiration for God's greatness
Honest	Say something true even if it's bitter
	Avoid defrauding, cheating, plagiarism, or stealing
	Have the courage to show something right
	Trustworthy does something it says
Discipline	Compliant and obedient to the time set by the organization/school
	Obey the applicable regulations without feeling forced
	Commitment and loyalty to the assigned task/job
Democratic	Think positively in every association with colleagues
	Show respect and respect any differences of opinion
	Listen and hear to every view even though it is different from personal perception
	Avoid treatment that is harassing and demeaning, including other students who have physical and
	mental disabilities
Curiosity	Ask question
	Digging, tracing and investigating
	Interested in various things that have not been found the answer
Care	Helping people in need
	Doing social activities to help people in need
	Caring for the school environment
	Throw garbage in its place
	Turning off the water faucet that pours water
Responsibility	Carry out any work that becomes
	responsibility
	Carry out individual tasks well
	Accept the risk of every action taken

This research's data analysis method is descriptive and inferential statistical. The descriptive analysis carried out in this study was processed with the help of SPSS 26.0 for Windows and what was analyzed was post-test data. The values sought in the statistical test include the mean, deviation standard, maximum and minimum values. Meanwhile, for inferential analysis, inferential statistics were used using the MANOVA test for post-test data. Prior to the Manova test, the prerequisite test was carried out using Kolmogorov-Smirnov, the homogeneity test with Levene Statistic and Box's Test of Equality of Covariance Matrices, and the linearity test aimed to determine whether there was a linear relationship in each of the analyzed dependent variables. The MANOVA test and the prerequisite test were carried out with the help of SPSS 26.0 for Windows.

# 3. Results and Discussion

### 3.1. Result

After the students are taught according to the learning design that has been made, namely learning with the self-concept based Upanisad learning model, the results of descriptive analysis show that there is a significant influence on the application of learning with the self-concept based Upanisad learning model. Complete results of the descriptive analysis are shown in Table 3. The descriptive analysis results show differences in the character and creative thinking abilities of students who are taught by learning with self-concept based Upanisad learning model with those who learn without the self-concept based Upanisad learning model. The data show from the difference in character scores of 4.67 in which, the average value of the character of students who are taught by self-concept based Upanisad learning model. Meanwhile, the creative thinking ability shows a difference score of 2.47 where the average score of the creative thinking ability of students who are taught by the self-concept-based Upanisad learning model is greater than the those who are not. The results also show that learning with self-concept based Upanisad learning model is more influential on students' character than the ability to think creatively.

**Commented [A5]:** Please rewrite following sentence in order to fix the issue of text overlap.

Table 3. Results of descriptive analysis of character and creative thinking ski	ills.
---	-------

Treatment	Dependent Variable	Mean	Std.	Min.	Max.	Range
			Deviation			
Learning with self-concept based Upanisad learning model	Character	87.30	7.51	71.00	99.00	28.00
Learning without self-concept based Upanisad learning model	Creative thinking skills	84.97	5.57	71.00	94.00	23
	Character	82.63	7.51	68	95	27
	Creative thinking skills	82.50	6.42	71	93	22

Prerequisite analysis tests include tests for normality of data distribution, homogeneity of variance test, multivariate homogeneity test, and linearity test for the dependent variable. The first prerequisite test was the normality test with the Kolmogorov-Smirnov. The results of the analysis show that all data of the groups are normally distributed, and it can be indicated by Sig. value of > 0.05, which is presented in Table 4. After the normality conditions are met, the following prerequisite test is the homogeneity test. In this study, the homogeneity test was carried out with two analyses: the homogeneity of variance test with Levene's Test of Equality and the multivariate homogeneity test with Box's Test of Equality of Covariance Matrices.

255	Learning Approach		Kolmogorov-Smirnov		
rrr			df	Sig.	
Character	Learning with the self-concept based Upanisad learning model		30	0.20	
	Learning without the self-concept based Upanisad learning model	0.11	30	0.20	
Creative thinking skills	Learning with self-concept based Upanisad learning model	0.13	30	0.20	
	Learning without self-concept based Upanisad learning model	0.10	30	0.20	

The results of the homogeneity analysis carried out show the same meaning, such as the research data derived from homogeneous data groups, and it can be seen from the sig value. each test showed a value of more than 0.05. Value of Sig. Levene's Test of Equality test is 0.99 for the character, while the value of Sig. Creative thinking ability of 0.98. Meanwhile, the homogeneity test using Box's Test of Equality of Covariance Matrices obtained Sig. of 0.13 with an F value of 1.87. The next prerequisite test is the linearity test, which aims to determine whether there is a linear relationship in each of the analyzed dependent variables. The results of the analysis show that the value of Sig. on Deviation from Linearity of 0.86 > 0.05 means a linear relationship between character data and creative thinking skills. The prerequisite test for MANOVA analysis has been fulfilled, the research data obtained are typically distributed and homogeneous so that hypothesis testing with Manova can be carried out. The results of the complete analysis are described in Table 5 and Table 6.

Table 5. Manova test result							
Effect		Value	F	Hypothesis df	Error df	Sig.	
Intercept	Pillai's Trace	1.00	9535.67 <mark>b</mark>	2.00	57.00	0.00	
	Wilks' Lambda	0.00	$9535.67^{b}$	2.00	57.00	0.00	
	Hotelling's Trace	334.56	$9535.67^{b}$	2.00	57.00	0.00	
	Roy's Largest Root	334.59	$9535.67^{b}$	2.00	57.00	0.00	
Treatment	Pillai's Trace	0.13	4.10 <sup>b</sup>	2.00	57.00	0.02	
	Wilks' Lambda	0.87	4.10 <sup>b</sup>	2.00	57.00	0.02	
	Hotelling's Trace	0.14	4.10 <sup>b</sup>	2.00	57.00	0.02	
	Roy's Largest Root	0.14	4.10 <sup>b</sup>	2.00	57.00	0.02	

Based on Pillae Trace, Wilks' Lambda Hotelling's Trace, and Roy's Largest Root with shows that the F coefficient is 9535.67 with a Sig. 0.00. This means that there are differences on conceptual understanding and speed between students who are taught using Upanisad-based learning and students who are taught without Upanisad learning. The results of the Tests of Between-Subjects Effects analysis show an F value of 5.79 with Sig. 0.02 which is smaller than 0.05, this shows that there is an effect of learning with the self-concept-based upanisad learning model on character. The results of the Tests of Between-Subjects Effects analysis show an F value of 2.53 with Sig. 0.02 which is smaller than 0.05. This shows that there is a high influence between learning and the upanisad learning model based on self-concept on creative thinking abilities.

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	Character	326.67	1	326.67	5.79	0.02
	Creative Thinking Skills	91.27	1	91.27	2.53	0.02
Intercept	Character	433160.07	1	433160.07	7675.29	0.00
	Creative Thinking Skills	420676.27	1	420676.27	11649.37	0.00
Treatment	Character	326.67	1	326.67	5.79	0.02
	Creative Thinking Skills	91.27	1	91.27	2.53	0.02
Error	Character	3273.27	58	56.44		
	Creative Thinking Skills	2094.47	58	36.11		
Total	Character	436760.00	60			
	Creative Thinking Skills	422862.000	60			

**Commented [A6]:** Please rewrite following sentence in order to fix the issue of text overlap.

Commented [A7]: Please rewrite following sentence in order to

fix the issue of text

**Commented [A8]:** "b" what indicates by these b? Please put in note of the table.

Journal of Education and e-Learning Research, 2022, x(x): xx-xx

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Total	Character	3599.93	59			
	Creative Thinking Skills	2185.73	59			

# 4. Discussion

The results showed that learning with the self-concept based Upanisad learning model simultaneously or partially impacts the character and creative thinking skills. It is inseparable from how learning is carried out. The Upanisad, which is used as a learning model, can be also used as a solution to achieve learning objectives. It is because the Upanishads provide systematic guidance in creating conducive learning conditions. The Upanisad is used as a prototype in the learning process because this holy book contains several stages that can be applied before starting to learn. One of the things taught in it is the process of meditation. Meditation becomes an action to focus on silence, with concentration, a learner will become calmer, and it easier to focus his mind or facilitate concentration. While meditating, a learner will be ready to receive any lessons or material that will be given. It can be explained that the ideas contained in religious literature and whose value is taken to be embedded are essential. Since the idea of religion provides value, the guide creates a praxis or action as well as a concept to improve the technical aspect. Moreover, Bali, predominantly Hindu, must take the essence of the Upanisad teachings to be implanted as a guidance for action, especially in learning. In other words, the value of Hinduism is not only cultural but intellectual. Especially in the global reality, local wisdom must still be internalized (Collier & Stewart, 2022; Marianno et al., 2022; Puspitasari, 2017). It can be explained that the existence of local wisdom can be used as a formula to embed pedagogical values in order to face an increasingly dynamic global reality.

The existence of the Upanishad and the teachings adopted in the learning process also has a very important meaning in creating effectiveness and a good learning environment. It is because the Upanishad teaches that students must sit or place themselves close to the educator as a source of information if they want to increase their understanding and improve their cognition (according to the terminological imprint, which means sitting near the teacher's feet). The terminology and teachings contained in the Upanishads also teach that a student or learner who is currently studying must concentrate or concentrate his mind fully to absorb as much knowledge as possible. It shows an in-depth perspective on efforts to build motivation, learning experiences, and encouragement to make oneself successful, especially in the learning process. The religious element's pedagogical idea is a fundamental aspect of building discipline and increasing self-reflection. In addition, pedagogical ideas in religious elements also help students interpreted the reality they face (Estapa & Tank, 2017; Fidalgo, Thormann, Kulyk, & Lencastre, 2020; Roberts et al., 2018). In other words, the Upanishad, as elements of Hinduism, provide perspectives and values to optimize the learning process.

Therefore, aspects in the Upanisad that can be used as a guide for thinking or acting in order to create a learning commitment between students and educators are the application of the principles of curiosity (*Tapasa*), the concentration of attention as prospective teachers (*Brahmacaryena*) and trust (*Shraddhaya*). The process of focusing attention in the learning process at the Hindu Religious Education Study Program, STKIP Agama Hindu of Singaraja, has not been optimally carried out. It is because in the meditation process, as a process of focusing the mind, the elements of *Tapasa* (curiosity) have not been internalized (focusing attention as a prospective Hindu religion teacher) and *Shraddaya* (trust) between students and educators. In other words, between educators and students, they must establish interdependent relationships to develop these three characters. Upanisad, which is used as a learning model, emphasizes not only the achievement of learning objectives. It coincides with the table presented above, that reforming character from bad to good character requires self-commitment, followed up with implementation. The self-commitment instilled through Upanisad values explains that the learning process is a process to create capitalization and consistency and an effort to build character based on the principle of curiosity.

The aspects embedded in this Upanisad also show a discourse that learning can be carried out when the individual who will learn is ready to receive the lesson. It is the reason for using the existence of the Upanisad is stated with Atha or an important element to improve the quality of learning. From a holistic point of view, the Upanisad teach the concept of naciketa or a principle about an effort or an action to continue learning oneself, in traditional educational institutions. In other words, it can be explained that the Likert Scale results, which still show a minimum result, can be optimized with values, ideas, implementations, or Upanisad-based learning modules. Increasing trust is important because it fosters participation in learning subjects and creates bonds between them. It is an essential thing that must be done on an ongoing basis because it can be a foundation in dealing with the dynamics of reality, especially in the world of education. Therefore, it is necessary to carry out and maintain the paradigm of education that integrates pedagogical and religious principles to encourage a competitive attitude in each learner and learning environment (Chittum, Jones, Akalin, & Schram, 2017; Cooper, Downing, & Brownell, 2018; Greenland, Saleem, Misra, & Mason, 2022; Ruz & Schunn, 2018). In other words, if a learner's motivation, interdependent relationships, and competitive spirit grow, the effort to accumulate information and learning motivation will also increase.

Using Upanisad values can build the learner's character because, in the Upanisad tradition, there is an orientation to see, define, understand and try to live life. The realities of life, dynamics in the learning process, and actions to improvise are explored with various approaches, such as observation, theory, practice, or visualization, that are understood integrally and comprehensively. This integral and comprehensive aspect is explored in totality, so it is very relevant in building one's character or learning mentality. All these things can be useful aspects of the learning process because the Upanisad teach aspects of Dharma Sadhana, namely the realization of teachings that stimulate students to improve themselves and obey what they are learning. It indicates that the Upanishads implicitly or explicitly teach about efforts to build character in each learner. It is following the statement of the character of each student built in a classroom setting that helps each learner to be able to achieve the learning objectives themselves. The formation of character can be initiated by continuous interaction between each other by

exchanging information about the situation, socializing, and interacting within the family, community, school, and environment (Bustami et al., 2017; Groenewoudt et al., 2019). It is also an indication of the creation of a quality study space, with the hope that there will be motivational construction from individuals as homo academics in understanding existing phenomena and creating reflection as a vehicle for contemplation (Dare, Ellis, & Roehrig, 2018; Eze, Chinedu-Eze, & Bello, 2018; Mercader & Gairín, 2020). In other words, it can be explained that the fusion of Hindu religious values into the learning aspect provides a psycho-pedagogical nuance and makes the education and learning process can be successful if various ideas support it.

The existence of character as a value also synchronizes between teachers and students so that they can build strong character pillars, especially those relating to cognitive and psychomotor of the students, and develop an individual's competence, in essence, as a learning creature (Blayone et al., 2017; Burford et al., 2013; Kintu et al., 2017; Shernoff et al., 2017; Tomas, Evans, Doyle, & Skamp, 2019; Zhou & Li, 2022). Students who have the character will be able to adapt to the nuances of a very dynamic era (Blotnicky et al., 2018; Chang & Hall, 2022; Farrell & Brunton, 2020; Kurdi et al., 2020; Pedro et al., 2018; Tunkkari et al., 2022). In addition, the existence of good character will be able to make students able to take part in good learning, which will certainly have an impact on the ability to think creatively. The ability to think creatively can be better formed because learning with the self-concept based Upanisad learning model provides a learning atmosphere in which an on-going learner must concentrate fully to absorb as much knowledge as possible. It shows an in-depth perspective on efforts to build motivation, learning experiences, and encouragement to make oneself successful, especially in the learning process. If the students focus on what is learned, they will be able to think creatively. Creative thinking skills can train students to develop many ideas and opinions, ask questions, acknowledge the truth of opinions, and make students able to be open and responsive towards different perspectives (Akpur, 2020; Antara, Suma, & Parmiti, 2022; Redifer et al., 2021). It is recently important to improve creative thinking skills in the learning process. Students' creative thinking ability in the learning process can affect student learning outcomes. The ability to think creatively will play a role in achieving learning outcomes. Well-developed creative thinking skills will have an impact on learning outcomes (Fatmawati et al., 2019; Hidayatulloh et al., 2020). Students who have high creative thinking skills will have good learning outcomes (Resien et al., 2020). In the current learning process, teachers are required to be able to think creatively, productively, innovatively, proactively, and affectively. Those aspects are related with the development of attitudes (know why), skills (know how), and knowledge (know about what) in an integrative way (Murjani & Hamid, 2016; Setyorini & Rizqiana, 2017). By having interesting and varied activities, students can develop their creativity, especially the ability to think creatively. So, the existence of the Upanisad is very important because the reality of education is complex and multifactorial. Thus, values in the Upanisad are needed to achieve the learning objectives and character building. Upanisad values that can shape the character of students include *Tapasa* (curiosity), *Brahmacaryena* (focusing attention) and *Shraddaya* (trust) between students and educators. By internalizing these values consistently and gradually, the learning process, pedagogical goals, and elements of character-building will be achieved.

# 5. Conclusion

The results showed that learning with the self-concept based Upanisad learning model simultaneously or partially impacts the character and creative thinking skills. It is shown from the mean scores of characters and creative thinking ability of students who are taught using the self-concept based Upanisad learning model is greater. The results also show that learning with the self-concept based Upanisad learning model is more influential on students' character than the ability to think creatively. So, it can be recommended that the selfconcept-based Upanishad learning model can be used as one of the innovative learning models to improve the character and creative thinking skills.

# References

- Benner, D. (2021). On justice in pedagogical contexts. ECNU Review of Education, 4(4), 669–685. Available at: https://doi.org/10.1177/2096531120933278.
  Blayone, T. J., vanOostveen, R., Barber, W., DiGiuseppe, M., & Childs, E. (2017). Democratizing digital learning: Theorizing the fully online learning community model. International Journal of Educational Technology in Higher Education, 14(1), 1-16. Available at: https://doi.org/10.1186/s41239-017-0051-4.
- https://doi.org/10.1186/s41239-017-0051-4.
  Blotnicky, K. A., Franz-Odendaal, T., French, F., & Joy, P. (2018). A study of the correlation between STEM career knowledge, mathematics self-efficacy, career interests, and career activities on the likelihood of pursuing a STEM career among middle school students. International Journal of STEM Education, 5(1), 1-15.Available at: https://doi.org/10.1186/s40594-018-018-9.
  Bosica, J., Pyper, J. S., & MacGregor, S. (2021). Incorporating problem-based learning in a secondary school mathematics preservice teacher education course. *Teaching and Teacher Education*, 102, 103335.Available at: https://doi.org/10.1016/j.tate.2021.103335.
  Bralić, A., & Divjak, B. (2018). Integrating MOOCs in traditionally taught courses: Achieving learning outcomes with blended learning. *International Journal of Educational Technology in Higher Education*, 15(1), 1-16.Available at: https://doi.org/10.1186/s41239-017-0085-7.
- 0085-7.
- Burford, G., Hoover, E., Velasco, I., Janoušková, S., Jimenez, A., Piggot, G., . . . Harder, M. K. (2013). Bringing the "missing pillar" into sustainable development goals: Towards intersubjective values-based indicators. *Sustainability*, 5(7), 3035-3059. Available at: https://doi.org/10.3390/su5073035.
   Bustami, Y., Corebina, A. D., & Suarsini, E. (2017). The social attitude empowerment of biology students: Implementation JiRQA learning
- Dustaini, I., Corebina, A. D., & Suarsini, E. (2017). The social attitude empowerment of biology students: Implementation JiRQA learning strategy in different ethnics. International Journal of Instruction, 10(3), 15-30. Available at: https://doi.org/10.12973/iji.2017.1032a.
   Castaneda, L., & Selwyn, N. (2018). More than tools? Making sense of the ongoing digitizations of higher education. International Journal of Educational Technology in Higher Education, 15(1), 1-10.
   Chang, C.-F., & Hall, N. C. (2022). Differentiating teachers' social goals: Implications for teacher-student relationships and perceived classroom engagement. AERA Open, 8, 23328584211064916Available at: https://doi.org/10.1177/23328584211064916.
- Cheung, A. C. K., & Xie, C. (2021). Evidence-based reform in education: Global perspectives. ECNU Review of Education, 4(1), 3-6.Available at: https://doi.org/10.1177/2096531120984793.

- Chittum, J. R., Jones, B. D., Akalin, S., & Schram, Á. B. (2017). The effects of an afterschool STEM program on students' motivation and engagement. *International journal of STEM education, 4*(1), 1-16.Available at: https://doi.org/10.1186/s40594-017-0065-4.
   Cintia, N. I., Kristin, F., & Anugraheni, I. (2018). Application of discovery learning learning model to improve creative thinking skills and student learning outcomes. *Educational Science Perspective, 32*(1), 67–75.Available at: https://doi.org/10.21009/pip.321.8.
   Collier, B., & Stewart, J. (2022). Privacy worlds: Exploring values and design in the development of the Tor anonymity network. *Science, Technology, & Human Values, 47*(5), 910-936.Available at: https://doi.org/10.1177/01622439211039019.
- //doi.org/10.1186/s40594-018-0101-z. https
- Dichev, C., & Dicheva, D. (2017). Gamilying education: What is known, what is believed and what remains uncertain: A critical review International Journal of Educational Technology in Higher Education, 14(1), 1-36.Available at: https://doi.org/10.1186/s41239-017 0042-5
- 0042-5.
  Dumont, H., & Ready, D. D. (2020). Do schools reduce or exacerbate inequality? How the associations between student achievement and achievement growth influence our understanding of the role of schooling. *American Educational Research Journal*, 57(2), 728-774.Available at: https://doi.org/10.3102/0002831219868182.
  Dyson, B., Shen, Y., Xiong, W., & Dang, L. (2022). How cooperative learning is conceptualized and implemented in Chinese physical education: A systematic review of literature. *ECNU Review of Education*, 5(1), 185-206.Available at: https://doi.org/10.1177/20965311211006721.
  Estapa, A. T., & Tank, K. M. (2017). Supporting integrated STEM in the elementary classroom: A professional development approach centered on an engineering design challenge. *International Journal of STEM Education*, 4(1), 1-16.
  Eze, S. C., Chinedu-Eze, V. C., & Bello, A. O. (2018). The utilisation of *e-learning Tacihines in the educational delivery system* of Nigeria: A study of Multiversity. *International of Stearing Content of The Stearing Tacihines in the education of Tacihines in the education of Tacihines in the education of the study of Multiversity. International of Stearing Tacihines in the education of Nigeria: A study of Multiversity. International of the study of Multiversity. International of Stearing Tacihines in the education of the study of Multiversity. International of Stearing Tacihines in the education of Nigeria: A study of Multiversity. International of Stearing Tacihines in the education of the study of Multiversity. International of Stearing Tacihines in the education of the study of Multiversity. International of the study of Multiversity. International of Stearing Tacihines in the education of the study of Multiversity. International of Stearing Tacihines in the study.*
- Eze, S. C., Chinedu-Eze, V. C., & Bello, A. O. (2018). The utilisation of e-learning facilities in the educational delivery system of Nigeria: A study of M-University. International Journal of Educational Technology in Higher Education, 15(1), 1-20.Available at: https://doi.org/10.1186/s41239-018-0116-z.
  Farrell, O., & Brunton, J. (2020). A balancing act: A window into online student engagement experiences. International Journal of Educational Technology in Higher Educational Journal of Educational Technology in Higher Educational Journal of Educational Technology in Higher Education, 17(1), 1-19.
  Fatmawati, A., Zubaidah, S., & Mahanal, S. (2019). Critical thinking, creative thinking, and learning achievement: How they are related. Paper presented at the In Journal of Physics: Conference Series, IOP Publishing.
  Febrianti, Y., Djahir, Y., & Fatimah, S. (2016). Analysis of students' creative thinking skills by utilizing the environment in economics subjects at SMA Negeri 6 Palembang. Profit Journal, 3(1), 121-127.
  Fenwick, T., & Edwards, R. (2016). Exploring the impact of digital technologies on professional responsibilities and education. European Educational Journal, 15(1), 117-131.
  Fidalgo, P., Thormann, J., Kulyk, O., & Lencastre, J. A. (2020). Students percentions on distance education: A multinational etudy.

- Fidalgo, P., Thormann, J., Kulyk, O., & Lencastre, J. A. (2020). Students perceptions on distance education: A multinational study. International Journal of Educational Technology in Higher Education, 17(1), 1–18.
   Fisher, D. (2021). Educational leadership and the impact of societal culture on effective practices. Journal of Research in International Education,
- 20(2), 134-153.Available at: https://doi.org/10.1177/14752409211032531.
- (1992). Culture and religion: Canisius Press. Law, K. M., & Niu, B. (2019). Investigating self-directed learning and technology readiness in blending learning environment. International Journal of Educational Technology in Higher Education, 16(1), 1-22.Available at: https://doi.org/10.1186/s41239-019-Geng, S., Law, K. M., & Niu, B. 0147-0.
- Greenland, S., Saleem, M., Misra, R., & Mason, J. (2022). Sustainable management education and an empirical five-pillar model of sustainability. *The International Journal of Management Education*, 20(3), 100658.Available at: https://doi.org/10.1016/j.ijme.2022.100658. https:/
- would, A. C., Rooks, G., & van Gool, P. J. (2019). When problems lead to ideas: The roles of daily vigor and social interactions. The Groene
- Groenewoudt, A. C., Rooks, G., & van Gool, P. J. (2019). When problems lead to ideas: The roles of daily vigor and social interactions. The Journal of Creative Behavior, 53(3), 286–297.Available at: https://doi.org/10.1002/jocb.179.
  Hansson, P., & Öhman, J. (2022). Museum education and sustainable development: A public pedagogy. European Educational Research Journal, 21(3), 469-483.Available at: https://doi.org/10.1177/14749041211056443.
  Hardy, I. J. H., Ness, A. M., & Mecca, J. (2017). Outside the box: Epistemic curiosity as a predictor of creative problem solving and creative performance. Personality and Individual Differences, 104, 230-237.Available at: https://doi.org/10.1016/j.paid.2016.08.004.
  Head, G. (2020). Ethics in educational research: Review boards, ethical issues and researcher development. European Educational Research Journal, 19(1), 72-83.Available at: https://doi.org/10.1177/14749041211056443.
  Heiberger, R. H., Munoz-Najar Galvez, S., & McFarland, D. A. (2021). Facets of specialization and its relation to career success: An analysis of US Sociology. 1980 to 2015. American Sociological Reviews 66(6). 1164-1192.Available at:
- Heiberger, R. H., Munoz-Najar Galvez, S., & McFarland, D. A. (2021). Facets of specialization and its relation to career success: An analysis of US Sociology, 1980 to 2015. American Sociological Review, 86(6), 1164-1192.Available at: https://doi.org/10.1177/00031224211056267.
  Hidayatulloh, M. K. Y., Muslim, S., Rahmadyanti, E., Ismayati, E., & Kusumawati, N. (2020). Level of creative thinking effect through multiple solution task type problem-solving on learning outcomes. Journal of Education, Teaching, and Learning Volume, 5(1), 177-184.Available at: https://doi.org/10.26737/jetl.v5i1.1821.
  Holmlund, T. D., Lesseig, K., & Slavit, D. (2018). Making sense of "STEM education" in K-12 contexts. International Journal of STEM Education, 5(32), 1-18.
  Hu, X., Ortagus, J. C., Voorhees, N., Rosinger, K., & Kelchen, R. (2022). Disparate impacts of performance funding research incentives on expenditures and state appropriations. AERA Oben 8, 93398584411071109 Available at:

- Hu, X., Ortagus, J. C., Voorhees, N., Rosinger, K., & Kelchen, K. (2022). Disparate impacts of performance funding research incentives on research expenditures and state appropriations. *AERA Open*, 8, 23328584211071109.Available at: https://doi.org/10.1177/23328584211071109.
  Huang, N.-t., Chang, Y.-s., & Chou, C.-h. (2020). Effects of creative thinking, psychomotor skills, and creative self-efficacy on engineering design creativity. *Thinking Skills and Creativity*, 37, 100695.Available at: https://doi.org/10.1016/j.tsc.2020.100695.
  Hudde, A. (2022). Educational differences in cycling: Evidence from German cities. *Sociology*, 00380385211063366.Available at: https://doi.org/10.1177/00380385211063366.
  Ivemark, B., & Ambrose, A. (2021). Habitus adaptation and first-generation university students' adjustment to higher education: A life course perspective. *Sociology of Education*, 94(3), 191-207.Available at: https://doi.org/10.1177/00380407211017060.
  Jacobson, M. J., Levin, J. A., & Kapur, M. (2019). Education as a complex system: Conceptual and methodological implications. *Educational Researcher* 48(9) 119-119

- Researcher, 48(2), 112-119.
   Education as a complex system. Conceptual and increasingle an impleations. Education as a complex system. Conceptual and increasingle an impleations. Educational Researcher, 48(2), 112-119.
   B. D., Miyazaki, Y., Li, M., & Biscotte, S. (2022). Motivational climate predicts student evaluations of teaching: Relationships between students' course perceptions, ease of course, and evaluations of teaching. *AERA Open*, 8, 23328584211073167. Available at: https://doi.org/10.1177/23328584211073167.
- nttps://doi.org/10.1171/23928084211073167.
   Kahne, J., & Bowyer, B. (2017). Educating for democracy in a partisan age: Confronting the challenges of motivated reasoning and misinformation. American Educational Research Journal, 54(1), 3-34.Available at: https://doi.org/10.3102/0002831216679817.
   Kalogeropoulos, P., Russo, J. A., & Clarkson, P. (2021). Exploring educator values alignment strategies in an intervention context: The emergence of the Beacon strategy. ECNU Review of Education, 4(2), 327-348.Available at: https://doi.org/10.1177/2096531120923127.
- https://doi.org/10.1177/2096531120923127.
  Kassim, H., Nicholas, H., & Ng, W. (2014). Using a multimedia learning tool to improve creative performance. Thinking Skills and Creativity, 13, 9-19.Available at: https://doi.org/10.1016/j.tsc.2014.02.004.
  Kintu, M. J., Zhu, C., & Kagambe, E. (2017). Blended learning effectiveness: The relationship between student characteristics, design features and outcomes. International Journal of Educational Technology in Higher Education, 14(1), 1-20.Available at: https://doi.org/10.1186/s41239-017-0043-4.
  Kraus, S., Jones, P., Kailer, N., Weinmann, A., Chaparro-Banegas, N., & Roig-Tierno, N. (2021). Digital transformation: An overview of the current state of the art of research. Sage Open, 11(3), 21582440211047576.Available at: https://doi.org/10.1177/21582440211047576.

- Kriyantono, R. (2014). Practical techniques of communication research (7th ed.): Kencana Prenada Media.
  Kurdi, G., Leo, J., Parsia, B., Sattler, U., & Emari, S. A. (2020). A systematic review of automatic question generation for educational purposes. International Journal of Artificial Intelligence in Education, 30(1), 121-204.
  Marianno, B. D., Hemphill, A. A., Loures-Elias, A. P. S., Garcia, L., Cooper, D., & Coombes, E. (2022). Power in a pandemic: Teachers' unions and their responses to school reopening. AERA Open, 8, 23328584221074337. Available at: https://doi.org/10.1177/23328584221074337.
- https://doi.org/10.1177/233285842210/4557.
   May, K. E., & Elder, A. D. (2018). Efficient, helpful, or distracting? A literature review of media multitasking in relation to academic performance. International Journal of Educational Technology in Higher Education, 15(1), 1-17.
   Mercader, C., & Gairín, J. (2020). University teachers' perception of barriers to the use of digital technologies: The importance of the academic discipline. International Journal of Educational Technology in Higher Education, 17(1), 1-14. Available at: https://doi.org/10.1177/233285842210/4557. https://doi.org/10.1186/s41239-020-0182-x.
- https://doi.org/10.1186/s41239-020-0182-x.
   Montag-Smit, T., & Maertz Jr, C. P. (2017). Searching outside the box in creative problem solving: The role of creative thinking skills and domain knowledge. Journal of Business Research, 81, 1-10.Available at: https://doi.org/10.1016/j.jbusres.2017.07.021.
   Murjani, A., & Hamid, A. (2016). Improving creative thinking skills and student learning outcomes through generative learning models on buffer solution material. Journal of Science Education Innovation, 7(2), 103–108.
   Nagovitsyn, R. S., Bartosh, D. K., Ratsimor, A. Y., & Maksimov, Y. G. (2018). Formation of social tolerance among future teachers. European Journal of Contemporary Education, 7(4), 754–763. Available at: https://doi.org/10.13187/ejced.2018.4.754.
   Parmiti, D., Rediani, N., Antara, I., & Jayadiningrat, M. (2021). The effectiveness of local culture-integrated science learning through project based assessment on scientific attivutes and science process skills of elementary school students. Judonesian Science Education Science Education Elementary School Science Learning through project based assessment on scientific attivutes and science process skills of elementary school students. Judonesian Science Education Science
- based assessment on scientific attitudes and science process skills of elementary school students. Indonesian Science Education
- Journal, 10(3), 439-446.Available at: https://doi.org/10.15294/jpii.v10i3.31301.
   Pedro, L. F. M. G., Barbosa, C. M. M. d. O., & Santos, C. M. d. N. (2018). A critical review of mobile learning integration in formal educational contexts. *International Journal of Educational Technology in Higher Education*, 15(1), 1-15.Available at: https://doi.org/10.1186/s41239-018-0091-4.
- Peng, Z., Benner, D., Nikolova, R., Ivanov, S., & Peng, T. (2021). Ethical and moral competences of upper secondary students: A comparative study. *ECNU Review of Education*, 4(4), 686-706.Available at: https://doi.org/10.1177/2096531120973958.
   Pham, L., Limbu, Y. B., Bui, T. K., Nguyen, H. T., & Pham, H. T. (2019). Does e-learning service quality influence e-learning student satisfaction and loyalty? Evidence from Vietnam. *International Journal of Educational Technology in Higher Education*, 16(1), 1-00 010 0
- 26.Available at: https://doi.org/10.1186/s41239-019-0136-3.
- Puspitasari, N. W. R. N. (2017). Power and religion: Geertz position of present-day Bali. Balinese Studies Journal, 7(1), 249-258. Available at:
- Puspitasari, N. W. R. N. (2017). Power and religion: Gertz position of present-day Bali. Balinese Studies Journal, 7(1), 249–258. Available at: https://doi.org/10.24843/JKB.2017.V07.i01.p13.
   Redifer, J. L., Bae, C. L., & Zhao, Q. (2021). Self-efficacy and performance feedback: Impacts on cognitive load during creative thinking. Learning and Instruction, 71, 101395. Available at: https://doi.org/10.1016/j.learninstruc.2020.101395.
   Resien, C., Sitompul, H., & Situmorang, J. (2020). The effect of blended learning strategy and creative thinking of students on the results of learning information and communication technology by controlling prior knowledge. Budapest International Research and Critics in Linguistics and Education (BirLE) Journal, 3(2), 879–893. Available at: https://doi.org/10.33258/birle.v3i2.997.
   Roberts, T., Jackson, C., Mohr-Schroeder, M. J., Bush, S. B., Maiorca, C., Cavalcanti, M., . . . Cremeans, C. (2018). Students' perceptions of STEM learning and communication of a communic informed learning and longing accessing and longing accessing (1), 1025.
- Roberts, F., Jackson, C., Non-Schoeder, M. J., Bish, S. B., Matora, C., Cavaranti, M., ... Cremeans, C. (2018). Statistics perceptions of STEM learning after participating in a summer informal learning experience. *International journal of STEM education, 5*(1), 1–14.Available at: https://doi.org/10.1186/s40594-018-0133-4.
   Rogers, J., & Revesz, A. (2019). Experimental and quasi-experimental. *Research Gate*, 133–143.
   Roopesh, O. (2021). Educating 'temple cultures' heterogeneous worship and hindutva politics in Kerala. *Sociological Bulletin*, 70(4), 485–1014.

- 501. Available at: https://doi.org/10.1177/00380229211051042.
- Roy, S., & Brown, S. (2022). Higher education in india in the time of pandemic, sans a learning management system. AERA Open, 8, 23328584211069527. Available at: https://doi.org/10.1177/23328584211069527.
   Ruz, V.-P., & Schunn, C. D. (2018). The nature of science identity and its role as the driver of student choices. International journal of STEM education 5(1), 1-12.Available at: https://doi.org/10.1186/s40594-018-0140-5.
- Schlein, C., Taft, R. J., & Ramsay, C. M. (2016). The intersection of culture and behavior: Intercultural competence, transnational adoptees, and social studies classrooms. *Journal of International Social Studies*, 6(1), 128-142.
   Sekar, D. K. S., Pudjawan, K., & Margunayasa, I. G. (2015). Learning science for grade iv students of Ganesha Education University. *PGSD*
- Sexa, D. R. S., Italjawan, R., & Margunayas, I. S. (2017). Dearling science for grade to students of Galesha Education University of Education Department of PGSD, 3(1), 1–11.
   Setyorini, N., & Rizqiana, S. (2017). The effectiveness of article media in learning to write speech manuscripts. Education and Learning, 2(2), 137-145.
   Shadle, S. E., Marker, A., & Earl, B. (2017). Faculty drivers and barriers: laying the groundwork for undergraduate STEM education reform in academic departments. International Journal of STEM Education, 4(1), 1–13.

- in academic departments. International Journal of STEM Education, 4(1), 1-15.
   Shernoff, D. J., Sinha, S., Bressler, D. M., & Ginsburg, L. (2017). Assessing teacher education and professional development needs for the implementation of integrated approaches to STEM education. International journal of STEM education, 4(1), 1-16.Available at: https://doi.org/10.1186/s40594-017-0068-1.
   Sleeter, C. E. (2018). Multicultural education past, present, and future: Struggles for dialog and power-sharing intercultural education multicultural education comes into being twenty-two years and two emblematic experiences ago elites react neoliberal multicultural education? International Journal of Multicultural Education, 20(1), 5-20.Available at: https://doi.org/10.18251/jime.y2011.1663.

- multicultural education? International Journal of Multicultural Education, 20(1), 5-20.Available at: https://doi.org/10.18251/ijme.v2011.1663.
  Smith, W. L., & Crowley, R. M. (2018). Social studies needs (new) white people: The case for including allies in the curriculum. The Social Studies, 109(4), 202-214.Available at: https://doi.org/10.1080/00377996.2018.1515720.
  Suadnyana, I., Bagus, P., & Yogiswari, K. S. (2019). Upanishads of modern education perspective. Pasupati Journal, 6(2), 88-99.Available at: https://doi.org/10.37428/pspt.v6i2.136.
  Suastra, I. W. (2017). Balinese local wisdom and their implications in science education at school. International Research Journal of Management, IT and Social Sciences, 4(2), 48-57.Available at: https://doi.org/10.21744/irjmis.v4i2.389.
  Suwastini, N. K. A., Dantes, G. R., Jayanta, I. N. L., & Suprihatin, C. T. (2020). Developing storyline for role-playing games based on balinese folklore for preserving local wisdom and character education. Paper presented at the in 3rd International Conference on Innovative Research Across Disciplines (ICIRAD 2019), Atlantis Press.
  Tendrita, M., Mahanal, S., & Zubaidah, S. (2016). Empocerment of creative thinking skills through think pair share remap model. Paper presented
- Research Across Disciplines (ICHAD 2019), Atlantis Press.
   Tendrita, M., Mahanal, S., & Zubaidah, S. (2016). Empowerment of creative thinking skills through think pair share remap model. Paper presented at the Proceedings of Biology Education Conference.
   Tomas, L., Evans, N. S., Doyle, T., & Skamp, K. (2019). Are first year students ready for a flipped classroom? A case for a flipped learning continuum. International Journal of Educational Technology in Higher Education, 16(1), 1-22.Available at: https://doi.org/10.1186/s41239-019-0135-4.
- Inters. / 100.007g / 10.1180/ \$\*1239-019-0135-4.
   Tsang, A. (2020). Enhancing learners' awareness of oral presentation (delivery) skills in the context of self-regulated learning. Active Learning in Higher Education, 21(1), 39-50. Available at: https://doi.org/10.1177/1469787417731214.
   Tunkkari, M., Aunola, K., Hirvonen, R., Silinskas, G., & Kiuru, N. (2022). A Person-oriented approach to maternal homework involvement during the transition to lower secondary school. Learning and Individual Differences, 97(5), 1-11. Available at: https://doi.org/10.1016/j.lindfi2022.102164.
- https://doi.org/10.1016/j.lindit.2022.102164.
   Väliverronen, E., & Saikkonen, S. (2021). Freedom of expression challenged: Scientists' perspectives on hidden forms of suppression and self-censorship. Science, Technology, & Human Values, 46(6), 1172-1200.Available at: https://doi.org/10.1177/0162243920978303.
   Wamsler, C. (2020). Education for sustainability: Fostering a more conscious society and transformation towards sustainability. International Journal of Sustainability in Higher Education, 21(1), 112-130.Available at: https://doi.org/10.1108/ijshe-04-2019-0152.
   Yildiz, C., & Yildiz, T. G. (2021). Exploring the relationship between creative thinking and scientific process skills of preschool children. Thinking Skills and Creativity, 39, 100795.Available at: https://doi.org/10.1016/j.tsc.2021.100795.

Yin, H. (2022). Empowering student learning in higher education: Pathways to possibility. ECNU Review of Education, 1–6.Available at: https://doi.org/10.1177/20965311211073971.
Zhang, M., Guo, M., & Xiao, B. (2021). Creative thinking and musical collaboration: Promoting online learning groups for aspiring musicians. Thinking Skills and Creativity, 42, 100947. Available at: https://doi.org/10.1016/j.tsc.2021.100947.
Zhou, L., & Li, J. (2022). Developing core competence with project-based learning: Voices from chinese high school students serving visually impaired students. ECNU Review of Education, 5(2), 383-389.Available at: https://doi.org/10.1177/20965311211005478.

Journal of Education and e-Learning Research Vol. x, No. x, xx-xx, 2022 ISSN(E) 2410-9991: / ISSN(P) 2518-0169: DOI: © 2022 by the authors: licensee Asian Online Journal Publishing Group

# The Integration of the Self-Concept-Based Upanisad Learning Model in Blended Learning and Its Impact on Character Development and Creative Thinking Skills

I Wayan Suwendra<sup>1</sup> I Putu Suarnaya<sup>2</sup> I Wayan Widiana<sup>3</sup> Ni Luh Asli<sup>\*</sup>



1

<sup>1:24</sup>STKIP Agama Hindu, Singaraja, Indonesia. <sup>3</sup>Universitas Pendidikan Ganesha, Singaraja, Indonesia

# Abstract

This study was conducted to investigate the impact of the self-concept-based Upanisad learning model integrated in blended learning on the development of character and creative thinking skills. This study adopted a quasi-experimental design with a posttest-only control design. The population of the study consisted of 90 students. The samples were taken by random sampling technique, with the total number of 60 students. Data collection methods used were tests and questionnaires. The test instrument used was in the form of a description test with 10 items and a questionnaire with a total of 30 items. The analysis technique employs MANOVA by SPSS. The results showed that learning with the self-concept based Upanisad learning model is greater. The results also show that learning with the self-concept based Upanisad learning model is greater. The results also show that learning with the self-concept based Upanisad learning model is more influential on students' character than the ability to think creatively. Based on these conclusions, it can be recommended that the self-concept-based Upanishad learning model can be used as an innovative learning model to improve the character and creative thinking skills.

Keywords: Character, Creative thinking skills, Self-concept based upanisad learning model.

# Contribution of this paper to the literature

The result of this research can be used as an innovative learning model integrated in blended learning which had an effect toward the character and creative thinking skills. The results showed that learning with the self-concept based Upanisad learning model simultaneously and partially impacts the character and creative thinking skills. It is shown from the mean scores of characters and creative thinking ability of students who are taught using the self-concept based Upanisad learning model is greater. The results also show that learning with the self-concept based Upanisad learning model is more influential on students' character than the ability to think creatively.

# 1. Introduction

In the educational process, moral character is an important aspect. The character of each student is built in a classroom setting that helps each learner to be able to achieve the learning objectives themselves. Character construction also aims to build dynamic thinking patterns in a unified learning space. Students who have a character within will be able to adapt to the nuances of a very dynamic era (Blotnicky, Franz-Odendaal, French, & Joy, 2018; Chang & Hall, 2022; Farrell & Brunton, 2020; Kurdi, Leo, Parsia, Sattler, & Emari, 2020; Pedro, Barbosa, & Santos, 2018; Tunkkari, Aunola, Hirvonen, Silinskas, & Kiuru, 2022). Good character will not be formed automatically. It must be developed continuously through teaching process, examples, continuous learning, and practice through character education. Continuous interaction within the family, community, school, and environment can be proceeded by character development through exchanging knowledge about the situation, socializing, and interacting with others (Bustami, Corebima, & Suarsini, 2017; Groenewoudt, Rooks, & van Gool, 2019). The existence of character as a value also synchronizes between teachers and their students so that they can build sustainable development, which is related especially to students' cognitive, psychomotor and the development of an individual's competence, in essence, as a learner (Blayone, vanOostveen, Barber, DiGiuseppe, & Childs, 2017; Burford et al., 2013; Kintu, Zhu, & Kagambe, 2017; Shernoff, Sinha, Bressler, & Ginsburg, 2017). Character helps conceptualize the future challanges of the students as well as teaching them good and proper attitude that should be performed. Therefore, it is considered crucial to colaborate between characters and the insight of the future world reality in the digital transition age (Dumont & Ready, 2020; Hu, Ortagus, Voorhees, Rosinger, & Kelchen, 2022; Kraus et al., 2021). So, it can be explained that the character internalization of

**Commented [AF1]:** In this section you need to specify what makes this study original. What have you done differently that hasn't been done before? Your contribution shouldn't be more than 50 words

studentsbecomes crucial. The character will enable students to develop a growth mindset and future oriented, and take certain proper actions in the age of digital transformation. In other words, students with strong values will be able to compete in the middle of the twenty-first century challanges. The need for students to have creative thinking is one of the demands that should be achieved.

Creative thinking is a way of thinking that can result in various potential solutions (Febrianti, Djahir, & Fatimah, 2016; Sekar, Pudjawan, & Margunayasa, 2015). It is also seen as the process used by someone to develop or formulate new ideas (Cintia, Kristin, & Anugraheni, 2018; Tendrita, Mahanal, & Zubaidah, 2016). Creative thinking includes many higher-order thinking skills such as analysis, testing, communication problem solving and scientific process skills (Redifer, Bae, & Zhao, 2021; Yildiz & Yildiz, 2021; Zhang, Guo, & Xiao, 2021). Creative thinking involves flexibility, fluency (Huang, Chang, & Chou, 2020; Kassim, Nicholas, & Ng, 2014), novelty, and elaboration (Hardy, Ness, & Mecca, 2017; Montag-Smit & Maertz Jr, 2017). Creative thinking skills can train students to develop many ideas and opinions, ask questions, acknowledge the truth of opinions, and make students able to be open minded and responsive to different perspectives (Akpur, 2020; Redifer et al., 2021). Nowadays, improving creative thinking skills in the learning process is important. Students' creative thinking ability in the learning process can affect learning outcomes. The ability to think creatively will play an important role in achieving learning outcomes. Well-developed creative thinking abilities will influence the results of learning (Fatmawati, Zubaidah, & Mahanal, 2019; Hidayatulloh, Muslim, Rahmadyanti, Ismayati, & Kusumawati, 2020). Students who have high creative thinking skills will have good learning outcomes (Resien, Sitompul, & Situmorang, 2020). The importance of creative thinking skills requires teachers to make a change in the learning process. The importance of character and the ability to think creatively requires an educator to develop a learning process that can develop these two aspects. Thus, character education is urgently needed. Character education becomes a priority because it builds social awareness of the reality of civilization and can create an effective action in the cycle of the social environment (Fisher, 2021; Hudde, 2022; Jacobson, Levin, & Kapur, 2019; Kahne & Bowyer, 2017; May & Elder, 2018; Pham, Limbu, Bui, Nguyen, & Pham, 2019; Roopesh, 2021; Wamsler, 2020). Character education, in other context, produces an environment that offers guidelines for thinking and acting in order to prevent the restriction of the students' ideas and creativity.by having exercises on creativity, a learner will be able to behave properly. It become the strong point in focusing on character education (Cheung & Xie, 2021; Fenwick & Edwards, 2016; Head, 2020; Kalogeropoulos, Russo, & Clarkson, 2021; Peng, Benner, Nikolova, Ivanov, & Peng, 2021; Tsang, 2020; Yin, 2022). It can be explained that the existence of character education helps students to build ethics, morals, skills and concentration of action to decide something as a result of self-improvisation.

The increasing frequency of brawls and other forms of violence in all social classes fill in the social phenomena carried on by the advance of technology. The presence of various racial, religious and intergroup conflicts indicates that the character of the Indonesian people is still weak and has not been able to handle issues of racial, religious, ethnic, and intergroup conflicts. It makes suspicions that lead hostility and cause the conflict easily. Character flaws will facilitate the formation of social conflicts (Nagovitsyn, Bartosh, Ratsimor, & Maksimov, 2018). The current globalization, which has become a reality today, has various implications which affect the formation of student character. The accessible information, the availability of different contents and the very rapid digital world expossure have the potential to degradee students' morality. Moral degradation creates students' character deficit. It means that the learning ethic, work ethic, sense of responsibility, tolerance, and other related aspects have also been eroded. The major and frequent problem on character recently is the low level of media and digital literacywhich unable to filter fake news spread. In addition, one character problem in this century is the phenomenon of xenophobia. Xenophobia is suspicion or social sentiment toward those who are different or who are considered "foreigners". Weak character is the result of the current learning practices that have not maximally linked the inter-cultural competence to the needs of students (Schlein, Taft, & Ramsay, 2016). Through learning, students are supposed to get the understanding and internalization, and practical social experience, which will increase their awareness of social values, individual values, and national unity. They should also develop their mental processes (knowledge and understanding), including social skills and competence (Alabas, 2018; Smith & Crowley, 2018).

It is necessary to create a local wisdom-based learning model in order to find a solution to these issues. Local wisdom is a factor that significantly affects community perceptions of human dignity. Fundamentally, a society's values are determined by local wisdom (Geertz, 1992). Local wisdom is a local way of thinking or an idea transferred from generation to generation and involves values including wisdom, creativity, and kindness (Kriyantono, 2014; Parmiti, Rediani, Antara, & Jayadiningrat, 2021). The values of Balinese local wisdom are believed to contain the truth, which is followed by community members. This local wisdom, which can be called the community's noble values, serves as the basis for the philosophy of good behaviour toward harmonization (Suwastini, Dantes, Jayanta, & Suprihatin, 2020). The existence of local content-based learning will have a positive impact on the learning process. The application of a learning model containing Balinese local wisdom can fill the gap between scientific literacy and student character in the learning process (Uge et al., 2019). The application of local wisdom-based learning can also construct student behaviour and character (Suhartini et al., 2019) physics learning model based on Balinese local wisdom is effective in developing creative thinking and national character (Suastra, 2017). The principles of developed social-constructivist learning model provides great opportunities for lifelong learning with all the gained experience (Bosica, Pyper, & MacGregor, 2021). A Hindu text called *Upanisad* is one example of local wisdom that might be applied. *Upanishad* in modern education is seen as one of the teachings of Hinduism containing educational values, like doing a comprehensive visualization towards a certain object of study, and the values that oblige problems base instruction and research-based instruction (Suadnyana, Bagus, & Yogiswari, 2019). Upanisad becomes "instructions" for traditional cultural values to overcome the existing impacts. The fusion of the Upanisads into the aspect of character formation aims to reshape the basic ideas in building individual civilizations as learners. This aspect is also a symbolic aspect of creating learners who are always learning in the process of self formation (Bralić & Divjak, 2018; Heiberger, Munoz-Najar Galvez, & McFarland, 2021; Shadle, Marker, & Earl, 2017; Väliverronen & Saikkonen, 2021).

Therefore, it can be formulated that the fusion between the Upanisad existence and pedagogy to form character is an action to create superior values in the survive in disruptive era.

Strengthening cultural values in the Upanisad will ultimately help students shape pedagogical practices, help students to enrich their learning experiences according to the social context, find the aspects of preference in learning and create an effective learning environment (Dichev & Dicheva, 2017; Dyson, Shen, Xiong, & Dang, 2022; Geng, Law, & Niu, 2019; Holmlund, Lesseig, & Slavit, 2018; Ivemark & Ambrose, 2021; Roy & Brown, 2022). The existence of the Upanisad is an important aspect of character education because the Upanisad can create a motivational climate, which is able to create an "energy" to define a problem or a particular issue and encourage solving the problem. It is important always to be applied because it is able to build a conceptualization of continuous learning actions. Another more important thing is that the Upanisad is able to create various perspectives that make students have many conceptions and can be used to build their character as learners (Benner, 2021; Castaneda & Selwyn, 2018; Hansson & Öhman, 2022; Jones, Miyazaki, Li, & Biscotte, 2022; Sleeter, 2018). In other words, it can be explained that the application of the Upanishads as an element of learning is an important factor in building student character. Because its existence can create fundamental values in shaping the mentality of students, especially in order to build their learning ethos. This description is the background of the research that aims to analyze the impact of the Upanisad learning model based on self-concept which is integrated with blended learning on character development and creative thinking skills. The self-concept-based Upanisad model used has been developed and is feasible to use. This can be seen from the value of validity, practicality and effectiveness in the very good category. This learning model is expected to be able to contribute to character education with self-concept. The availability of this learning model is expected to be able to contribute to character education to overcome character wea

# 2. Methods

This study used a quasi-experimental research with a posttest control group design (Rogers & Revesz, 2019). The research implementation process is grouped into experimental class and control class which both implement blended learning settings. The experimental group was given treatment with the self-concept based upanisad learning model. Meanwhile, the control group was taught by learning without the self-concept based upanisad learning model. The steps are taken in learning with the self-concept based upanisad learning model. The steps are taken in learning with the self-concept based upanisad learning model. The steps are taken in learning the spiritual path by Hindu priest and meditation experts; Pre-test of students' self-concept and character quality through questionnaires, interviews and observations; Cultivation of self-concept and character education through meditation learning materials, both theory and practice that prioritizes exercises; Implementation of the learning strategy of sitting close to a spiritual teacher (meditation teacher), a sacred learning condition, to receive the secrets of religious-philosophical meditation; Post-test with authentic assessment using: diary, observation, interview and performance test; Final initiation (Samawartana) is the final process of learning, as a sign that the perfection of knowledge, attitudes and skills in the field of meditation has been achieved.

Both groups will be given a post-test to determine the differences in character and creative thinking skills between the control and experimental groups. The data to be obtained in this study are: the character (Y1) of the Experiment class; Character (Y1) Control class; Creative thinking skills (Y2) in the Experiment class; Creative thinking skills (Y2) in the Control class. The trial was conducted in the Hindu Religious Education Study Program (S1), involving 90 fifth semester students. Before selecting the two classes, an equivalence test was conducted using One Way-ANOVA (Anava-A) analysis using the SPSS 26.0 for Windows application. After the population equivalence test of 90 people was carried out, a random sampling technique was used to determine the sample class. Each class consisted of 30 people in the control class and experimental class. In this study, the data collection process used was test and questionnaire.

The test was conducted to measure the creative thinking skills of students. This test was developed according to the material given. The test developed is a essay test that consists of 10 questions at the C4-C6 level. The steps are as follows; 1) create a test instrument grid; 2) make questions in the form of descriptions; 3) consult the grid and questions to the experts. The developed grid follows the indicators of creative thinking ability. The creative thinking skills instrument grid is shown in Table 1. In testing the validity of the creative thinking ability test instrument, it is necessary to test the validity of the instrument items, the validity of the instrument content, the reliability of the test, the level of difficulty of the test items, and the level of difficulty of the test equipment. Testing the validity of the items of the creative thinking ability test instrument was carried out using the CVR formula. The CVR results from the calculation of each instrument item are 1, and the total CVR of all the creative thinking ability test instrument items is obtained by 10 and can be declared valid based on the validation provisions of each instrument item in the CVR formula. The content validity test of the creative thinking ability test instrument was declared very good based on the content validation provisions of the entire instrument in the CVI formula. The reliability test of the creative thinking ability test whose data is in the form of polytomies using the Alpha Coefficient formula with the results obtained is 0.87 and is in the range of  $0,60 < r11 \le 0,87$ . Thus, the reliability of the creative thinking ability test is at a high criterion. The test items' difficult vel for the ability to think creatively obtained the results that of the 10 questions, 4 questions were on the medium criteria and 6 were on the high criteria. In comparison, the level of difficult of a test device is in the difficult criteria.

on the high criteria. In comparison, the level of difficulty of a test device is in the difficult criteria. The method of collecting data is in the form of a questionnaire to measure character. It is in the form of a closed questionnaire, the form of the character questionnaire uses a Likert model rating scale, that each item is equipped with a choice of 30 answers, namely: Very Appropriate (SS), Appropriate (S), Unappropriate (TS), Very unappropriate (STS). The questionnaire was developed from the character dimensions, namely religious, honest, disciplined, democratic, caring, curious, and responsible dimensions. Of these 7 dimensions, it will be developed into 25 indicators 30 statements. A complete character grid is described in Table 2. In testing the validity of the character questionnaire instrument, it is necessary to test the validity of the instrument items, the validity of the instrument's content, and the reliability. Testing the validity of the contents of the questionnaire by using the CVR Commented [AF2]: You have used this term throughout the document, but have not defined it. Please define it for the benefit of your reader. CVR CVR CVR CVI SS STS SPSS MANOVA STKIP

**Commented [A3]:** Please rewrite following sentence in order to fix the issue of text overlap.

**Commented [A4]:** Please rewrite following sentence in order to fix the issue of text overlap.

formula. The CVR result of the calculation of each instrument item is 1, and the total CVR of all character instrument items is 30. It can be declared valid based on the validation provisions of each instrument item in the CVR formula. Testing the validity of the contents of the questionnaire with SPPS obtained 0.87, which is classified as very strong. Testing the reliability of the questionnaire with SPSS, the analysis results in the Cronbach's Alpha value of 0.93 which means that the developed questionnaire is very reliable.

Table 1. Indicators of creative thinking ability.				
Dimension	Indicators			
Generate original ideas	<ol> <li>The resulting answer is different from the expected answer.</li> </ol>			
	2. The resulting answers contain complex thinking skills consisting of			
	multidisciplinary science			
Produce original works and actions	<ol> <li>Produce unusual works or actions</li> </ol>			
	2. Produce works or actions that describe multidisciplinary science			
Have the flexibility of thinking in finding	1. Having the ability to think openly is not limited to one standard			
alternative solutions to problems	solution			
	2. Have flexible thinking skills in combining several disciplines to solve			
	problems			

	Table 2. Character Instrument Indicators.
Dimension	Indicators
Religion	Always pray
	Always say thanks for God's blessings
	Expressing admiration for God's greatness
Honest	Say something true even if it's bitter
	Avoid defrauding, cheating, plagiarism, or stealing
	Have the courage to show something right
	Trustworthy does something it says
Discipline	Compliant and obedient to the time set by the organization/school
	Obey the applicable regulations without feeling forced
	Commitment and loyalty to the assigned task/job
Democratic	Think positively in every association with colleagues
	Show respect and respect any differences of opinion
	Listen and hear to every view even though it is different from personal perception
	Avoid treatment that is harassing and demeaning, including other students who have physical and
	mental disabilities
Curiosity	Ask question
	Digging, tracing and investigating
	Interested in various things that have not been found the answer
Care	Helping people in need
	Doing social activities to help people in need
	Caring for the school environment
	Throw garbage in its place
	Turning off the water faucet that pours water
Responsibility	Carry out any work that becomes
	responsibility
	Carry out individual tasks well
	Accept the risk of every action taken

This research's data analysis method is descriptive and inferential statistical. The descriptive analysis carried out in this study was processed with the help of SPSS 26.0 for Windows and what was analyzed was post-test data. The values sought in the statistical test include the mean, deviation standard, maximum and minimum values. Meanwhile, for inferential analysis, inferential statistics were used using the MANOVA test for post-test data. Prior to the Manova test, the prerequisite test was carried out using Kolmogorov-Smirnov, the homogeneity test with Levene Statistic and Box's Test of Equality of Covariance Matrices, and the linearity test aimed to determine whether there was a linear relationship in each of the analyzed dependent variables. The MANOVA test and the prerequisite test were carried out with the help of SPSS 26.0 for Windows.

# 3. Results and Discussion

### 3.1. Result

After the students are taught according to the learning design that has been made, namely learning with the self-concept based Upanisad learning model, the results of descriptive analysis show that there is a significant influence on the application of learning with the self-concept based Upanisad learning model. Complete results of the descriptive analysis are shown in Table 3. The descriptive analysis results show differences in the character and creative thinking abilities of students who are taught by learning with self-concept based Upanisad learning model with those who learn without the self-concept based Upanisad learning model. The data show from the difference in character scores of 4.67 in which, the average value of the character of students who are taught by self-concept based Upanisad learning model. Meanwhile, the creative thinking ability shows a difference score of 2.47 where the average score of the creative thinking ability of students who are taught by the self-concept-based Upanisad learning model is greater than the those who are not. The results also show that learning with self-concept based Upanisad learning model is more influential on students' character than the ability to think creatively.

**Commented [A5]:** Please rewrite following sentence in order to fix the issue of text overlap.

Table 3. Results of descriptive analysis of character and creative thinking ski	ills.
---	-------

Treatment	Dependent Variable	Mean	Std.	Min.	Max.	Range
			Deviation			
Learning with self-concept based Upanisad learning model	Character	87.30	7.51	71.00	99.00	28.00
Learning without self-concept based Upanisad learning model	Creative thinking skills	84.97	5.57	71.00	94.00	23
	Character	82.63	7.51	68	95	27
	Creative thinking skills	82.50	6.42	71	93	22

Prerequisite analysis tests include tests for normality of data distribution, homogeneity of variance test, multivariate homogeneity test, and linearity test for the dependent variable. The first prerequisite test was the normality test with the Kolmogorov-Smirnov. The results of the analysis show that all data of the groups are normally distributed, and it can be indicated by Sig. value of > 0.05, which is presented in Table 4. After the normality conditions are met, the following prerequisite test is the homogeneity test. In this study, the homogeneity test was carried out with two analyses: the homogeneity of variance test with Levene's Test of Equality and the multivariate homogeneity test with Box's Test of Equality of Covariance Matrices.

255	Leomin - Annoch	Kolmogorov-Smirnov		
rrr	Learning Approach	Statistic	df	Sig.
Character	Learning with the self-concept based Upanisad learning model		30	0.20
	Learning without the self-concept based Upanisad learning model	0.11	30	0.20
Creative thinking skills	Learning with self-concept based Upanisad learning model	0.13	30	0.20
	Learning without self-concept based Upanisad learning model	0.10	30	0.20

The results of the homogeneity analysis carried out show the same meaning, such as the research data derived from homogeneous data groups, and it can be seen from the sig value. each test showed a value of more than 0.05. Value of Sig. Levene's Test of Equality test is 0.99 for the character, while the value of Sig. Creative thinking ability of 0.98. Meanwhile, the homogeneity test using Box's Test of Equality of Covariance Matrices obtained Sig. of 0.13 with an F value of 1.87. The next prerequisite test is the linearity test, which aims to determine whether there is a linear relationship in each of the analyzed dependent variables. The results of the analysis show that the value of Sig. on Deviation from Linearity of 0.86 > 0.05 means a linear relationship between character data and creative thinking skills. The prerequisite test for MANOVA analysis has been fulfilled, the research data obtained are typically distributed and homogeneous so that hypothesis testing with Manova can be carried out. The results of the complete analysis are described in Table 5 and Table 6.

Table 5. Manova test result									
Effect		Value	F	Hypothesis df	Error df	Sig.			
Intercept	Pillai's Trace	1.00	9535.67 <mark>b</mark>	2.00	57.00	0.00			
	Wilks' Lambda	0.00	$9535.67^{b}$	2.00	57.00	0.00			
	Hotelling's Trace	334.56	$9535.67^{b}$	2.00	57.00	0.00			
	Roy's Largest Root	334.59	$9535.67^{b}$	2.00	57.00	0.00			
Treatment	Pillai's Trace	0.13	4.10 <sup>b</sup>	2.00	57.00	0.02			
	Wilks' Lambda	0.87	4.10 <sup>b</sup>	2.00	57.00	0.02			
	Hotelling's Trace	0.14	4.10 <sup>b</sup>	2.00	57.00	0.02			
	Roy's Largest Root	0.14	4.10 <sup>b</sup>	2.00	57.00	0.02			

Based on Pillae Trace, Wilks' Lambda Hotelling's Trace, and Roy's Largest Root with shows that the F coefficient is 9535.67 with a Sig. 0.00. This means that there are differences on conceptual understanding and speed between students who are taught using Upanisad-based learning and students who are taught without Upanisad learning. The results of the Tests of Between-Subjects Effects analysis show an F value of 5.79 with Sig. 0.02 which is smaller than 0.05, this shows that there is an effect of learning with the self-concept-based upanisad learning model on character. The results of the Tests of Between-Subjects Effects analysis show an F value of 2.53 with Sig. 0.02 which is smaller than 0.05. This shows that there is a high influence between learning and the upanisad learning model based on self-concept on creative thinking abilities.

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	Character	326.67	1	326.67	5.79	0.02
	Creative Thinking Skills	91.27	1	91.27	2.53	0.02
Intercept	Character	433160.07	1	433160.07	7675.29	0.00
-	Creative Thinking Skills	420676.27	1	420676.27	11649.37	0.00
Treatment	Character	326.67	1	326.67	5.79	0.02
	Creative Thinking Skills	91.27	1	91.27	2.53	0.02
Error	Character	3273.27	58	56.44		
	Creative Thinking Skills	2094.47	58	36.11		
Total	Character	436760.00	60			
	Creative Thinking Skills	422862.000	60			

**Commented [A6]:** Please rewrite following sentence in order to fix the issue of text overlap.

Commented [A7]: Please rewrite following sentence in order to

fix the issue of text

**Commented [A8]:** "b" what indicates by these b? Please put in note of the table.

Journal of Education and e-Learning Research, 2022, x(x): xx-xx

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Total	Character	3599.93	59			
	Creative Thinking Skills	2185.73	59			

# 4. Discussion

The results showed that learning with the self-concept based Upanisad learning model simultaneously or partially impacts the character and creative thinking skills. It is inseparable from how learning is carried out. The Upanisad, which is used as a learning model, can be also used as a solution to achieve learning objectives. It is because the Upanishads provide systematic guidance in creating conducive learning conditions. The Upanisad is used as a prototype in the learning process because this holy book contains several stages that can be applied before starting to learn. One of the things taught in it is the process of meditation. Meditation becomes an action to focus on silence, with concentration, a learner will become calmer, and it easier to focus his mind or facilitate concentration. While meditating, a learner will be ready to receive any lessons or material that will be given. It can be explained that the ideas contained in religious literature and whose value is taken to be embedded are essential. Since the idea of religion provides value, the guide creates a praxis or action as well as a concept to improve the technical aspect. Moreover, Bali, predominantly Hindu, must take the essence of the Upanisad teachings to be implanted as a guidance for action, especially in learning. In other words, the value of Hinduism is not only cultural but intellectual. Especially in the global reality, local wisdom must still be internalized (Collier & Stewart, 2022; Marianno et al., 2022; Puspitasari, 2017). It can be explained that the existence of local wisdom can be used as a formula to embed pedagogical values in order to face an increasingly dynamic global reality.

The existence of the Upanishad and the teachings adopted in the learning process also has a very important meaning in creating effectiveness and a good learning environment. It is because the Upanishad teaches that students must sit or place themselves close to the educator as a source of information if they want to increase their understanding and improve their cognition (according to the terminological imprint, which means sitting near the teacher's feet). The terminology and teachings contained in the Upanishads also teach that a student or learner who is currently studying must concentrate or concentrate his mind fully to absorb as much knowledge as possible. It shows an in-depth perspective on efforts to build motivation, learning experiences, and encouragement to make oneself successful, especially in the learning process. The religious element's pedagogical idea is a fundamental aspect of building discipline and increasing self-reflection. In addition, pedagogical ideas in religious elements also help students interpreted the reality they face (Estapa & Tank, 2017; Fidalgo, Thormann, Kulyk, & Lencastre, 2020; Roberts et al., 2018). In other words, the Upanishad, as elements of Hinduism, provide perspectives and values to optimize the learning process.

Therefore, aspects in the Upanisad that can be used as a guide for thinking or acting in order to create a learning commitment between students and educators are the application of the principles of curiosity (*Tapasa*), the concentration of attention as prospective teachers (*Brahmacaryena*) and trust (*Shraddhaya*). The process of focusing attention in the learning process at the Hindu Religious Education Study Program, STKIP Agama Hindu of Singaraja, has not been optimally carried out. It is because in the meditation process, as a process of focusing the mind, the elements of *Tapasa* (curiosity) have not been internalized (focusing attention as a prospective Hindu religion teacher) and *Shraddaya* (trust) between students and educators. In other words, between educators and students, they must establish interdependent relationships to develop these three characters. Upanisad, which is used as a learning model, emphasizes not only the achievement of learning objectives. It coincides with the table presented above, that reforming character from bad to good character requires self-commitment, followed up with implementation. The self-commitment instilled through Upanisad values explains that the learning process is a process to create capitalization and consistency and an effort to build character based on the principle of curiosity.

The aspects embedded in this Upanisad also show a discourse that learning can be carried out when the individual who will learn is ready to receive the lesson. It is the reason for using the existence of the Upanisad is stated with Atha or an important element to improve the quality of learning. From a holistic point of view, the Upanisad teach the concept of naciketa or a principle about an effort or an action to continue learning oneself, in traditional educational institutions. In other words, it can be explained that the Likert Scale results, which still show a minimum result, can be optimized with values, ideas, implementations, or Upanisad-based learning modules. Increasing trust is important because it fosters participation in learning subjects and creates bonds between them. It is an essential thing that must be done on an ongoing basis because it can be a foundation in dealing with the dynamics of reality, especially in the world of education. Therefore, it is necessary to carry out and maintain the paradigm of education that integrates pedagogical and religious principles to encourage a competitive attitude in each learner and learning environment (Chittum, Jones, Akalin, & Schram, 2017; Cooper, Downing, & Brownell, 2018; Greenland, Saleem, Misra, & Mason, 2022; Ruz & Schunn, 2018). In other words, if a learner's motivation, interdependent relationships, and competitive spirit grow, the effort to accumulate information and learning motivation will also increase.

Using Upanisad values can build the learner's character because, in the Upanisad tradition, there is an orientation to see, define, understand and try to live life. The realities of life, dynamics in the learning process, and actions to improvise are explored with various approaches, such as observation, theory, practice, or visualization, that are understood integrally and comprehensively. This integral and comprehensive aspect is explored in totality, so it is very relevant in building one's character or learning mentality. All these things can be useful aspects of the learning process because the Upanisad teach aspects of Dharma Sadhana, namely the realization of teachings that stimulate students to improve themselves and obey what they are learning. It indicates that the Upanishads implicitly or explicitly teach about efforts to build character in each learner. It is following the statement of the character of each student built in a classroom setting that helps each learner to be able to achieve the learning objectives themselves. The formation of character can be initiated by continuous interaction between each other by

exchanging information about the situation, socializing, and interacting within the family, community, school, and environment (Bustami et al., 2017; Groenewoudt et al., 2019). It is also an indication of the creation of a quality study space, with the hope that there will be motivational construction from individuals as homo academics in understanding existing phenomena and creating reflection as a vehicle for contemplation (Dare, Ellis, & Roehrig, 2018; Eze, Chinedu-Eze, & Bello, 2018; Mercader & Gairín, 2020). In other words, it can be explained that the fusion of Hindu religious values into the learning aspect provides a psycho-pedagogical nuance and makes the education and learning process can be successful if various ideas support it.

The existence of character as a value also synchronizes between teachers and students so that they can build strong character pillars, especially those relating to cognitive and psychomotor of the students, and develop an individual's competence, in essence, as a learning creature (Blayone et al., 2017; Burford et al., 2013; Kintu et al., 2017; Shernoff et al., 2017; Tomas, Evans, Doyle, & Skamp, 2019; Zhou & Li, 2022). Students who have the character will be able to adapt to the nuances of a very dynamic era (Blotnicky et al., 2018; Chang & Hall, 2022; Farrell & Brunton, 2020; Kurdi et al., 2020; Pedro et al., 2018; Tunkkari et al., 2022). In addition, the existence of good character will be able to make students able to take part in good learning, which will certainly have an impact on the ability to think creatively. The ability to think creatively can be better formed because learning with the self-concept based Upanisad learning model provides a learning atmosphere in which an on-going learner must concentrate fully to absorb as much knowledge as possible. It shows an in-depth perspective on efforts to build motivation, learning experiences, and encouragement to make oneself successful, especially in the learning process. If the students focus on what is learned, they will be able to think creatively. Creative thinking skills can train students to develop many ideas and opinions, ask questions, acknowledge the truth of opinions, and make students able to be open and responsive towards different perspectives (Akpur, 2020; Antara, Suma, & Parmiti, 2022; Redifer et al., 2021). It is recently important to improve creative thinking skills in the learning process. Students' creative thinking ability in the learning process can affect student learning outcomes. The ability to think creatively will play a role in achieving learning outcomes. Well-developed creative thinking skills will have an impact on learning outcomes (Fatmawati et al., 2019; Hidayatulloh et al., 2020). Students who have high creative thinking skills will have good learning outcomes (Resien et al., 2020). In the current learning process, teachers are required to be able to think creatively, productively, innovatively, proactively, and affectively. Those aspects are related with the development of attitudes (know why), skills (know how), and knowledge (know about what) in an integrative way (Murjani & Hamid, 2016; Setyorini & Rizqiana, 2017). By having interesting and varied activities, students can develop their creativity, especially the ability to think creatively. So, the existence of the Upanisad is very important because the reality of education is complex and multifactorial. Thus, values in the Upanisad are needed to achieve the learning objectives and character building. Upanisad values that can shape the character of students include *Tapasa* (curiosity), *Brahmacaryena* (focusing attention) and *Shraddaya* (trust) between students and educators. By internalizing these values consistently and gradually, the learning process, pedagogical goals, and elements of character-building will be achieved.

# 5. Conclusion

The results showed that learning with the self-concept based Upanisad learning model simultaneously or partially impacts the character and creative thinking skills. It is shown from the mean scores of characters and creative thinking ability of students who are taught using the self-concept based Upanisad learning model is greater. The results also show that learning with the self-concept based Upanisad learning model is more influential on students' character than the ability to think creatively. So, it can be recommended that the selfconcept-based Upanishad learning model can be used as one of the innovative learning models to improve the character and creative thinking skills.

# References

- Benner, D. (2021). On justice in pedagogical contexts. ECNU Review of Education, 4(4), 669–685. Available at: https://doi.org/10.1177/2096531120933278.
  Blayone, T. J., vanOostveen, R., Barber, W., DiGiuseppe, M., & Childs, E. (2017). Democratizing digital learning: Theorizing the fully online learning community model. International Journal of Educational Technology in Higher Education, 14(1), 1-16. Available at: https://doi.org/10.1186/s41239-017-0051-4.
- https://doi.org/10.1186/s41239-017-0051-4.
  Blotnicky, K. A., Franz-Odendaal, T., French, F., & Joy, P. (2018). A study of the correlation between STEM career knowledge, mathematics self-efficacy, career interests, and career activities on the likelihood of pursuing a STEM career among middle school students. International Journal of STEM Education, 5(1), 1-15.Available at: https://doi.org/10.1186/s40594-018-018-9.
  Bosica, J., Pyper, J. S., & MacGregor, S. (2021). Incorporating problem-based learning in a secondary school mathematics preservice teacher education course. *Teaching and Teacher Education*, 102, 103335.Available at: https://doi.org/10.1016/j.tate.2021.103335.
  Bralić, A., & Divjak, B. (2018). Integrating MOOCs in traditionally taught courses: Achieving learning outcomes with blended learning. *International Journal of Educational Technology in Higher Education*, 15(1), 1-16.Available at: https://doi.org/10.1186/s41239-017-0085-7.
- 0085-7.
- Burford, G., Hoover, E., Velasco, I., Janoušková, S., Jimenez, A., Piggot, G., . . . Harder, M. K. (2013). Bringing the "missing pillar" into sustainable development goals: Towards intersubjective values-based indicators. *Sustainability*, 5(7), 3035-3059. Available at: https://doi.org/10.3390/su5073035.
   Bustami, Y., Corebina, A. D., & Suarsini, E. (2017). The social attitude empowerment of biology students: Implementation JiRQA learning
- Dustaini, I., Corebina, A. D., & Suarsini, E. (2017). The social attitude empowerment of biology students: Implementation JiRQA learning strategy in different ethnics. International Journal of Instruction, 10(3), 15-30. Available at: https://doi.org/10.12973/iji.2017.1032a.
   Castaneda, L., & Selwyn, N. (2018). More than tools? Making sense of the ongoing digitizations of higher education. International Journal of Educational Technology in Higher Education, 15(1), 1-10.
   Chang, C.-F., & Hall, N. C. (2022). Differentiating teachers' social goals: Implications for teacher-student relationships and perceived classroom engagement. AERA Open, 8, 23328584211064916Available at: https://doi.org/10.1177/23328584211064916.
- Cheung, A. C. K., & Xie, C. (2021). Evidence-based reform in education: Global perspectives. ECNU Review of Education, 4(1), 3-6.Available at: https://doi.org/10.1177/2096531120984793.

- Chittum, J. R., Jones, B. D., Akalin, S., & Schram, Á. B. (2017). The effects of an afterschool STEM program on students' motivation and engagement. *International journal of STEM education, 4*(1), 1-16.Available at: https://doi.org/10.1186/s40594-017-0065-4.
   Cintia, N. I., Kristin, F., & Anugraheni, I. (2018). Application of discovery learning learning model to improve creative thinking skills and student learning outcomes. *Educational Science Perspective, 32*(1), 67–75.Available at: https://doi.org/10.21009/pip.321.8.
   Collier, B., & Stewart, J. (2022). Privacy worlds: Exploring values and design in the development of the Tor anonymity network. *Science, Technology, & Human Values, 47*(5), 910-936.Available at: https://doi.org/10.1177/01622439211039019.
- //doi.org/10.1186/s40594-018-0101-z. https
- Dichev, C., & Dicheva, D. (2017). Gamilying education: What is known, what is believed and what remains uncertain: A critical review International Journal of Educational Technology in Higher Education, 14(1), 1-36.Available at: https://doi.org/10.1186/s41239-017 0042-5
- 0042-5.
  Dumont, H., & Ready, D. D. (2020). Do schools reduce or exacerbate inequality? How the associations between student achievement and achievement growth influence our understanding of the role of schooling. *American Educational Research Journal*, 57(2), 728-774.Available at: https://doi.org/10.3102/0002831219868182.
  Dyson, B., Shen, Y., Xiong, W., & Dang, L. (2022). How cooperative learning is conceptualized and implemented in Chinese physical education: A systematic review of literature. *ECNU Review of Education*, 5(1), 185-206.Available at: https://doi.org/10.1177/20965311211006721.
  Estapa, A. T., & Tank, K. M. (2017). Supporting integrated STEM in the elementary classroom: A professional development approach centered on an engineering design challenge. *International Journal of STEM Education*, 4(1), 1-16.
  Eze, S. C., Chinedu-Eze, V. C., & Bello, A. O. (2018). The utilisation of *e-learning Tacihines in the educational delivery system* of Nigeria: A study of Multiversity. *International of Stearing Content of The Stearing Tacihines in the education of Tacihines in the education of Tacihines in the education of the study of Multiversity. International of Stearing Tacihines in the education of Nigeria: A study of Multiversity. International of the study of Multiversity. International of Stearing Tacihines in the education of the study of Multiversity. International of Stearing Tacihines in the education of Nigeria: A study of Multiversity. International of Stearing Tacihines in the education of the study of Multiversity. International of Stearing Tacihines in the education of the study of Multiversity. International of the study of Multiversity. International of Stearing Tacihines in the education of the study of Multiversity. International of Stearing Tacihines in the study.*
- Eze, S. C., Chinedu-Eze, V. C., & Bello, A. O. (2018). The utilisation of e-learning facilities in the educational delivery system of Nigeria: A study of M-University. International Journal of Educational Technology in Higher Education, 15(1), 1-20.Available at: https://doi.org/10.1186/s41239-018-0116-z.
  Farrell, O., & Brunton, J. (2020). A balancing act: A window into online student engagement experiences. International Journal of Educational Technology in Higher Educational Journal of Educational Technology in Higher Educational Journal of Educational Technology in Higher Education, 17(1), 1-19.
  Fatmawati, A., Zubaidah, S., & Mahanal, S. (2019). Critical thinking, creative thinking, and learning achievement: How they are related. Paper presented at the In Journal of Physics: Conference Series, IOP Publishing.
  Febrianti, Y., Djahir, Y., & Fatimah, S. (2016). Analysis of students' creative thinking skills by utilizing the environment in economics subjects at SMA Negeri 6 Palembang. Profit Journal, 3(1), 121-127.
  Fenwick, T., & Edwards, R. (2016). Exploring the impact of digital technologies on professional responsibilities and education. European Educational Journal, 15(1), 117-131.
  Fidalgo, P., Thormann, J., Kulyk, O., & Lencastre, J. A. (2020). Students percentions on distance education: A multinational etudy.

- Fidalgo, P., Thormann, J., Kulyk, O., & Lencastre, J. A. (2020). Students perceptions on distance education: A multinational study. International Journal of Educational Technology in Higher Education, 17(1), 1–18.
   Fisher, D. (2021). Educational leadership and the impact of societal culture on effective practices. Journal of Research in International Education,
- 20(2), 134-153.Available at: https://doi.org/10.1177/14752409211032531.
- (1992). Culture and religion: Canisius Press. Law, K. M., & Niu, B. (2019). Investigating self-directed learning and technology readiness in blending learning environment. International Journal of Educational Technology in Higher Education, 16(1), 1-22.Available at: https://doi.org/10.1186/s41239-019-Geng, S., Law, K. M., & Niu, B. 0147-0.
- Greenland, S., Saleem, M., Misra, R., & Mason, J. (2022). Sustainable management education and an empirical five-pillar model of sustainability. *The International Journal of Management Education*, 20(3), 100658.Available at: https://doi.org/10.1016/j.ijme.2022.100658. https:/
- would, A. C., Rooks, G., & van Gool, P. J. (2019). When problems lead to ideas: The roles of daily vigor and social interactions. The Groene
- Groenewoudt, A. C., Rooks, G., & van Gool, P. J. (2019). When problems lead to ideas: The roles of daily vigor and social interactions. The Journal of Creative Behavior, 53(3), 286–297.Available at: https://doi.org/10.1002/jocb.179.
  Hansson, P., & Öhman, J. (2022). Museum education and sustainable development: A public pedagogy. European Educational Research Journal, 21(3), 469-483.Available at: https://doi.org/10.1177/14749041211056443.
  Hardy, I. J. H., Ness, A. M., & Mecca, J. (2017). Outside the box: Epistemic curiosity as a predictor of creative problem solving and creative performance. Personality and Individual Differences, 104, 230-237.Available at: https://doi.org/10.1016/j.paid.2016.08.004.
  Head, G. (2020). Ethics in educational research: Review boards, ethical issues and researcher development. European Educational Research Journal, 19(1), 72-83.Available at: https://doi.org/10.1177/14749041211056443.
  Heiberger, R. H., Munoz-Najar Galvez, S., & McFarland, D. A. (2021). Facets of specialization and its relation to career success: An analysis of US Sociology. 1980 to 2015. American Sociological Reviews 66(6). 1164-1192.Available at:
- Heiberger, R. H., Munoz-Najar Galvez, S., & McFarland, D. A. (2021). Facets of specialization and its relation to career success: An analysis of US Sociology, 1980 to 2015. American Sociological Review, 86(6), 1164-1192.Available at: https://doi.org/10.1177/00031224211056267.
  Hidayatulloh, M. K. Y., Muslim, S., Rahmadyanti, E., Ismayati, E., & Kusumawati, N. (2020). Level of creative thinking effect through multiple solution task type problem-solving on learning outcomes. Journal of Education, Teaching, and Learning Volume, 5(1), 177-184.Available at: https://doi.org/10.26737/jetl.v5i1.1821.
  Holmlund, T. D., Lesseig, K., & Slavit, D. (2018). Making sense of "STEM education" in K-12 contexts. International Journal of STEM Education, 5(32), 1-18.
  Hu, X., Ortagus, J. C., Voorhees, N., Rosinger, K., & Kelchen, R. (2022). Disparate impacts of performance funding research incentives on expenditures and state appropriations. AERA Oben 8, 93398584411071109 Available at:

- Hu, X., Ortagus, J. C., Voorhees, N., Rosinger, K., & Kelchen, K. (2022). Disparate impacts of performance funding research incentives on research expenditures and state appropriations. *AERA Open*, 8, 23328584211071109.Available at: https://doi.org/10.1177/23328584211071109.
  Huang, N.-t., Chang, Y.-s., & Chou, C.-h. (2020). Effects of creative thinking, psychomotor skills, and creative self-efficacy on engineering design creativity. *Thinking Skills and Creativity*, 37, 100695.Available at: https://doi.org/10.1016/j.tsc.2020.100695.
  Hudde, A. (2022). Educational differences in cycling: Evidence from German cities. *Sociology*, 00380385211063366.Available at: https://doi.org/10.1177/00380385211063366.
  Ivemark, B., & Ambrose, A. (2021). Habitus adaptation and first-generation university students' adjustment to higher education: A life course perspective. *Sociology of Education*, 94(3), 191-207.Available at: https://doi.org/10.1177/00380407211017060.
  Jacobson, M. J., Levin, J. A., & Kapur, M. (2019). Education as a complex system: Conceptual and methodological implications. *Educational Researcher* 48(9) 119-119

- Researcher, 48(2), 112-119.
   Education as a complex system. Conceptual and increasingle an impleations. Education as a complex system. Conceptual and increasingle an impleations. Educational Researcher, 48(2), 112-119.
   B. D., Miyazaki, Y., Li, M., & Biscotte, S. (2022). Motivational climate predicts student evaluations of teaching: Relationships between students' course perceptions, ease of course, and evaluations of teaching. *AERA Open*, 8, 23328584211073167. Available at: https://doi.org/10.1177/23328584211073167.
- nttps://doi.org/10.1171/23928084211073167.
   Kahne, J., & Bowyer, B. (2017). Educating for democracy in a partisan age: Confronting the challenges of motivated reasoning and misinformation. American Educational Research Journal, 54(1), 3-34.Available at: https://doi.org/10.3102/0002831216679817.
   Kalogeropoulos, P., Russo, J. A., & Clarkson, P. (2021). Exploring educator values alignment strategies in an intervention context: The emergence of the Beacon strategy. ECNU Review of Education, 4(2), 327-348.Available at: https://doi.org/10.1177/2096531120923127.
- https://doi.org/10.1177/2096531120923127.
  Kassim, H., Nicholas, H., & Ng, W. (2014). Using a multimedia learning tool to improve creative performance. Thinking Skills and Creativity, 13, 9-19.Available at: https://doi.org/10.1016/j.tsc.2014.02.004.
  Kintu, M. J., Zhu, C., & Kagambe, E. (2017). Blended learning effectiveness: The relationship between student characteristics, design features and outcomes. International Journal of Educational Technology in Higher Education, 14(1), 1-20.Available at: https://doi.org/10.1186/s41239-017-0043-4.
  Kraus, S., Jones, P., Kailer, N., Weinmann, A., Chaparro-Banegas, N., & Roig-Tierno, N. (2021). Digital transformation: An overview of the current state of the art of research. Sage Open, 11(3), 21582440211047576.Available at: https://doi.org/10.1177/21582440211047576.

- Kriyantono, R. (2014). Practical techniques of communication research (7th ed.): Kencana Prenada Media.
  Kurdi, G., Leo, J., Parsia, B., Sattler, U., & Emari, S. A. (2020). A systematic review of automatic question generation for educational purposes. International Journal of Artificial Intelligence in Education, 30(1), 121-204.
  Marianno, B. D., Hemphill, A. A., Loures-Elias, A. P. S., Garcia, L., Cooper, D., & Coombes, E. (2022). Power in a pandemic: Teachers' unions and their responses to school reopening. AERA Open, 8, 23328584221074337. Available at: https://doi.org/10.1177/23328584221074337.
- https://doi.org/10.1177/233285842210/4557.
   May, K. E., & Elder, A. D. (2018). Efficient, helpful, or distracting? A literature review of media multitasking in relation to academic performance. International Journal of Educational Technology in Higher Education, 15(1), 1-17.
   Mercader, C., & Gairín, J. (2020). University teachers' perception of barriers to the use of digital technologies: The importance of the academic discipline. International Journal of Educational Technology in Higher Education, 17(1), 1-14. Available at: https://doi.org/10.1177/233285842210/4557. https://doi.org/10.1186/s41239-020-0182-x.
- https://doi.org/10.1186/s41239-020-0182-x.
   Montag-Smit, T., & Maertz Jr, C. P. (2017). Searching outside the box in creative problem solving: The role of creative thinking skills and domain knowledge. Journal of Business Research, 81, 1-10.Available at: https://doi.org/10.1016/j.jbusres.2017.07.021.
   Murjani, A., & Hamid, A. (2016). Improving creative thinking skills and student learning outcomes through generative learning models on buffer solution material. Journal of Science Education Innovation, 7(2), 103–108.
   Nagovitsyn, R. S., Bartosh, D. K., Ratsimor, A. Y., & Maksimov, Y. G. (2018). Formation of social tolerance among future teachers. European Journal of Contemporary Education, 7(4), 754–763. Available at: https://doi.org/10.13187/ejced.2018.4.754.
   Parmiti, D., Rediani, N., Antara, I., & Jayadiningrat, M. (2021). The effectiveness of local culture-integrated science learning through project based assessment on scientific attivutes and science process skills of elementary school students. Judonesian Science Education Science Education Elementary School Science Learning through project based assessment on scientific attivutes and science process skills of elementary school students. Judonesian Science Education Science
- based assessment on scientific attitudes and science process skills of elementary school students. Indonesian Science Education
- Journal, 10(3), 439-446.Available at: https://doi.org/10.15294/jpii.v10i3.31301.
   Pedro, L. F. M. G., Barbosa, C. M. M. d. O., & Santos, C. M. d. N. (2018). A critical review of mobile learning integration in formal educational contexts. International Journal of Educational Technology in Higher Education, 15(1), 1-15.Available at: https://doi.org/10.1186/s41239-018-0091-4.
- Peng, Z., Benner, D., Nikolova, R., Ivanov, S., & Peng, T. (2021). Ethical and moral competences of upper secondary students: A comparative study. *ECNU Review of Education*, 4(4), 686-706.Available at: https://doi.org/10.1177/2096531120973958.
   Pham, L., Limbu, Y. B., Bui, T. K., Nguyen, H. T., & Pham, H. T. (2019). Does e-learning service quality influence e-learning student satisfaction and loyalty? Evidence from Vietnam. *International Journal of Educational Technology in Higher Education*, 16(1), 1-00 010 0
- 26.Available at: https://doi.org/10.1186/s41239-019-0136-3.
- Puspitasari, N. W. R. N. (2017). Power and religion: Geertz position of present-day Bali. Balinese Studies Journal, 7(1), 249-258. Available at:
- Puspitasari, N. W. R. N. (2017). Power and religion: Gertz position of present-day Bali. Balinese Studies Journal, 7(1), 249–258. Available at: https://doi.org/10.24843/JKB.2017.V07.i01.p13.
   Redifer, J. L., Bae, C. L., & Zhao, Q. (2021). Self-efficacy and performance feedback: Impacts on cognitive load during creative thinking. Learning and Instruction, 71, 101395. Available at: https://doi.org/10.1016/j.learninstruc.2020.101395.
   Resien, C., Sitompul, H., & Situmorang, J. (2020). The effect of blended learning strategy and creative thinking of students on the results of learning information and communication technology by controlling prior knowledge. Budapest International Research and Critics in Linguistics and Education (BirLE) Journal, 3(2), 879–893. Available at: https://doi.org/10.33258/birle.v3i2.997.
   Roberts, T., Jackson, C., Mohr-Schroeder, M. J., Bush, S. B., Maiorca, C., Cavalcanti, M., . . . Cremeans, C. (2018). Students' perceptions of STEM learning and communication of a communic informed learning and longing accompany. . . . Cremeans, C. (2018). Students' perceptions of
- Roberts, F., Jackson, C., Non-Schoeder, M. J., Bish, S. B., Matora, C., Cavaranti, M., ... Cremeans, C. (2018). Statistics perceptions of STEM learning after participating in a summer informal learning experience. *International journal of STEM education, 5*(1), 1–14.Available at: https://doi.org/10.1186/s40594-018-0133-4.
   Rogers, J., & Revesz, A. (2019). Experimental and quasi-experimental. *Research Gate*, 133–143.
   Roopesh, O. (2021). Educating 'temple cultures' heterogeneous worship and hindutva politics in Kerala. *Sociological Bulletin*, 70(4), 485–1014.

- 501. Available at: https://doi.org/10.1177/00380229211051042.
- Roy, S., & Brown, S. (2022). Higher education in india in the time of pandemic, sans a learning management system. AERA Open, 8, 23328584211069527. Available at: https://doi.org/10.1177/23328584211069527.
   Ruz, V.-P., & Schunn, C. D. (2018). The nature of science identity and its role as the driver of student choices. International journal of STEM education 5(1), 1-12.Available at: https://doi.org/10.1186/s40594-018-0140-5.
- Schlein, C., Taft, R. J., & Ramsay, C. M. (2016). The intersection of culture and behavior: Intercultural competence, transnational adoptees, and social studies classrooms. *Journal of International Social Studies*, 6(1), 128-142.
   Sekar, D. K. S., Pudjawan, K., & Margunayasa, I. G. (2015). Learning science for grade iv students of Ganesha Education University. *PGSD*
- Sexa, D. R. S., Italjawan, R., & Margunayas, I. S. (2017). Dearling science for grade to students of Galesha Education University of Education Department of PGSD, 3(1), 1–11.
   Setyorini, N., & Rizqiana, S. (2017). The effectiveness of article media in learning to write speech manuscripts. Education and Learning, 2(2), 137-145.
   Shadle, S. E., Marker, A., & Earl, B. (2017). Faculty drivers and barriers: laying the groundwork for undergraduate STEM education reform in academic departments. International Journal of STEM Education, 4(1), 1–13.

- in academic departments. International Journal of STEM Education, 4(1), 1-15.
   Shernoff, D. J., Sinha, S., Bressler, D. M., & Ginsburg, L. (2017). Assessing teacher education and professional development needs for the implementation of integrated approaches to STEM education. International journal of STEM education, 4(1), 1-16.Available at: https://doi.org/10.1186/s40594-017-0068-1.
   Sleeter, C. E. (2018). Multicultural education past, present, and future: Struggles for dialog and power-sharing intercultural education multicultural education comes into being twenty-two years and two emblematic experiences ago elites react neoliberal multicultural education? International Journal of Multicultural Education, 20(1), 5-20.Available at: https://doi.org/10.18251/jime.y2011.1663.

- multicultural education? International Journal of Multicultural Education, 20(1), 5-20.Available at: https://doi.org/10.18251/ijme.v2011.1663.
  Smith, W. L., & Crowley, R. M. (2018). Social studies needs (new) white people: The case for including allies in the curriculum. The Social Studies, 109(4), 202-214.Available at: https://doi.org/10.1080/00377996.2018.1515720.
  Suadnyana, I., Bagus, P., & Yogiswari, K. S. (2019). Upanishads of modern education perspective. Pasupati Journal, 6(2), 88-99.Available at: https://doi.org/10.37428/pspt.v6i2.136.
  Suastra, I. W. (2017). Balinese local wisdom and their implications in science education at school. International Research Journal of Management, IT and Social Sciences, 4(2), 48-57.Available at: https://doi.org/10.21744/irjmis.v4i2.389.
  Suwastini, N. K. A., Dantes, G. R., Jayanta, I. N. L., & Suprihatin, C. T. (2020). Developing storyline for role-playing games based on balinese folklore for preserving local wisdom and character education. Paper presented at the in 3rd International Conference on Innovative Research Across Disciplines (ICIRAD 2019), Atlantis Press.
  Tendrita, M., Mahanal, S., & Zubaidah, S. (2016). Empocerment of creative thinking skills through think pair share remap model. Paper presented
- Research Across Disciplines (ICHAD 2019), Atlantis Press.
   Tendrita, M., Mahanal, S., & Zubaidah, S. (2016). Empowerment of creative thinking skills through think pair share remap model. Paper presented at the Proceedings of Biology Education Conference.
   Tomas, L., Evans, N. S., Doyle, T., & Skamp, K. (2019). Are first year students ready for a flipped classroom? A case for a flipped learning continuum. International Journal of Educational Technology in Higher Education, 16(1), 1-22.Available at: https://doi.org/10.1186/s41239-019-0135-4.
- Inters. / 100.007g / 10.1180/ \$\*1239-019-0135-4.
   Tsang, A. (2020). Enhancing learners' awareness of oral presentation (delivery) skills in the context of self-regulated learning. Active Learning in Higher Education, 21(1), 39-50. Available at: https://doi.org/10.1177/1469787417731214.
   Tunkkari, M., Aunola, K., Hirvonen, R., Silinskas, G., & Kiuru, N. (2022). A Person-oriented approach to maternal homework involvement during the transition to lower secondary school. Learning and Individual Differences, 97(5), 1-11. Available at: https://doi.org/10.1016/j.lindfi2022.102164.
- https://doi.org/10.1016/j.lindit.2022.102164.
   Väliverronen, E., & Saikkonen, S. (2021). Freedom of expression challenged: Scientists' perspectives on hidden forms of suppression and self-censorship. Science, Technology, & Human Values, 46(6), 1172-1200.Available at: https://doi.org/10.1177/0162243920978303.
   Wamsler, C. (2020). Education for sustainability: Fostering a more conscious society and transformation towards sustainability. International Journal of Sustainability in Higher Education, 21(1), 112-130.Available at: https://doi.org/10.1108/ijshe-04-2019-0152.
   Yildiz, C., & Yildiz, T. G. (2021). Exploring the relationship between creative thinking and scientific process skills of preschool children. Thinking Skills and Creativity, 39, 100795.Available at: https://doi.org/10.1016/j.tsc.2021.100795.

Yin, H. (2022). Empowering student learning in higher education: Pathways to possibility. ECNU Review of Education, 1–6.Available at: https://doi.org/10.1177/20965311211073971.
Zhang, M., Guo, M., & Xiao, B. (2021). Creative thinking and musical collaboration: Promoting online learning groups for aspiring musicians. Thinking Skills and Creativity, 42, 100947. Available at: https://doi.org/10.1016/j.tsc.2021.100947.
Zhou, L., & Li, J. (2022). Developing core competence with project-based learning: Voices from chinese high school students serving visually impaired students. ECNU Review of Education, 5(2), 383-389.Available at: https://doi.org/10.1177/20965311211005478.