

# THE EFFECT OF TRADITIONAL KNOWLEDGE ON THE COMMUNITY'S PREFERENCE IN USING *TRITIK* AND *JUMPUTAN* CRAFT IN INDONESIA

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**Abstract:** Traditional knowledge is a knowledge structure about the environmental condition by utilizing traditional resources. One of traditional knowledge of Javanese people which has high historical value is *tritik* and *jumputan* craft art. Therefore, it needs evidence on how big is the effect of society traditional knowledge towards the society interest in using the product as the result of *tritik* and *jumputan* craft art. This research is as an effort to investigate the effect of traditional knowledge towards the level of society preference in using the product of *tritik* and *jumputan* motif craft art. This study used incidental sampling method in taking the respondents samples in the amount of 100 respondents. Based on the result of significance test multiple linear regression coefficient for variable the community knowledge  $t_{count} > t_{table}$ , is 7.491 > 1.66071 and significance value < 0.05, is 0.000. The result of determination coefficient ( $R^2$ ) obtained in the amount of 0.364. The community knowledge has positive and significant effect towards the level of preference in wearing the product with *tritik* and *jumputan* motif.

**Keywords:** traditional knowledge, *tritik* and *jumputan*, craft, Indonesia.

## 1 INTRODUCTION

Surakarta City is rich in handicraft which is a form of traditional knowledge [1]. Traditional knowledge is a composition of knowledge about environmental conditions by utilizing traditional resources [2]. Efforts are needed in order to continue its existence [3]. Global interest in protecting traditional knowledge and cultural wealth is increasingly evident in the Pacific region over the past few decades [4]. These efforts can be carried out through regeneration in the younger generation in order to be able to preserve the nation's cultural heritage [5]. Traditional knowledge transmission is delivered through socialization to schools to provide an overview of cultural protection for future generations [6]. Cultural protection can be transmitted well through traditional knowledge and legal protection of regional culture [7]. The need to maintain the existence of culture as a form of character strengthening and aesthetic protection of the supporting community life [8]. The cultural value system is the highest level of customs that becomes a guideline, gives enlightenment and becomes an orientation to the life of a society because it is considered valuable and important in community's lives [9].

The hereditary culture has been widely developed in Javanese society, more specifically the Surakarta region [10]. One of the traditional knowledge of the Javanese community that has high historical value is the art of *tritik* craft and *jumputan*. *Tritik* and *jumputan* is one form of textile craft from Java [11]. The method of decorating the white cloth using *tritik* techniques is to sew baste then pulled then dyed and the motif is formed after the yarn is released [12, 13]. *Tritik* is a technique to decorate cloth. *Tritik* fabric is made by stretching the fabric then being pulled tightly together into a lump of cloth which is then dipped into the dye [14]. The method of decorating a white cloth using a *tritik* technique is to sew baste and then be dyed and the motif is formed after the yarn is released [15]. It is named as dye sewing because the making is done by means of being sewn or folded in such a way and then dipped in a dye solution to form a motif [16]. *Tritik* experienced rapid development where initially the *tritik* fabric consisted of only one color, namely dark blue, black, or red like red noni which later developed into more complex patterns with contrasting color contours [17, 18]. Seeing the potential that can be developed and the demand from the world market, the development of *tritik*

techniques is carried out to provide a different perspective on the process of work [19].

It is different with the case of *jumputan* techniques that are quite familiar in the world of textiles and clothing coloring. *Jumputan* comes from the word "jumput" which has a meaning in the form of making cloth that is pulled or being *jumput* which is a Javanese term [20]. *Jumputan* is a textile or handicraft product whose manufacturing process is easy and the equipment is simple so that it can be reached and many apply it as a product of a home industry [21]. *Jumputan* fabric usually has a motif that fills all ingredients. The usual *jumputan* cloth, one pair consists of material for the top, bottom, and shawl [22]. For this type, artisans generally make *jumputan* with one color theme. *Jumputan* is widely known by the term used as *Jumputan* batik cloth. *Jumputan* is the biggest commodity as a Javanese livelihood [23].

The existence of *tritik* and *jumputan* certainly needs to be realized through a form of cultural appreciation that arises from the formation of traditional knowledge in society [24]. Indicators of the ability to appreciate culture can be divided into three things, namely understanding, interpreting and valuing. Appreciation can occur if a person experiences, both directly and indirectly, in the artwork or culture [25, 26]. Cultural appreciation is a manifestation of community's preference in their cultural values [27], in this context the cultural values are in the form of *tritik* and *jumputan* motifs. In addition to respecting the use of the products, the community also needs to understand the meaning behind the motifs of *tritik* and *jumputan* [28]. *Tritik* and *jumputan* fabrics are fabrics that are unique both in terms of motifs and how they are made. Various types of *jumputan* cloths are quite popular with the people so that their products are widespread [29].

Understanding and meaning of cultural values is a reconstruction of principles in traditional knowledge [30]. The reality that occurs in the community is the large number of *tritik* and *jumputan* products that are starting to become national products, so that cultural works have been widely imposed by Indonesian society in general [31]. But in this case, there is no understanding and appreciation of the community towards the cultural products they use. The community has not fully understood the style and symbols that are worn so that the message of culture has not yet fully derived. The transmission of morality values and the message of a noble culture have not been well understood by the wider community [32]. The curiosity of community towards the products of *tritik* culture and *jumputan* needs to be encouraged so that they can take the message contained in every motif and color. Therefore, it is necessary to prove how much the community

traditional knowledge affects their preference in using *tritik* and *jumputan* craft products.

Several previous studies that are relevant to this study have not specifically investigated traditional knowledge in *tritik* craft and *jumputan*. This study is more specific in investigating how much influence given by the community traditional knowledge on their preference in using *tritik* motifs and *jumputan* products.

## 2 METHODS

Participants in this study were the people of Surakarta City. The city of Surakarta was chosen because Javanese traditions and culture in this city still exist and continue so that the city of Surakarta has branding as the Representative City of Java. The incidental sampling method was used in this study [33] as the respondent's sampling method. Referring to Hair [34], the sample size is recommended at 100-200 respondents so that the precision value is high. 100 questionnaires were distributed in April 2019 with a span of one month by sharing it where the participants were filling it in directly at that time. There are 5 items for the measurement of variable knowledge of community and 6 items for the variable level of preference of *tritik* handicrafts and *jumputan*. The variables are measured by 5 Likert scales (1 = strongly disagree to 5 = strongly agree). The analytical method uses statistical descriptive analysis and analysis data.

## 3 RESULTS

Descriptive analysis is intended to find out the characteristics and responses of respondents to items in the questionnaire. According to Sugiono [33], descriptive analysis is a statistical analysis used to analyze data by describing collected data.

**Table 1** The demographic profile from sample

Demographic variable	Categories	%
Gender	Male	19
	Female	81
Age	21 – 30	39
	31 – 40	19
	41 – 50	25
	51 – 60	17
Occupation	Employees	28
	Civil servant	25
	Entrepreneur	47
The highest education	SHS	39
	D1/Diploma 1	1
	D3/Diploma 3	18
	S1/Undergraduate	40
	Nurse assistant	1
	Pharmacist	1

From the 100 respondents surveyed, 81% were women. Up to 39% of respondents were aged between 21-30 years. While as many as 47%

of the respondents' jobs were self-employed and 40% of the respondents were undergraduate education.

**Table 2** Indicators of community knowledge

Community knowledge	Item No.	n	N	%
Knowledge about traditional knowledge	1	379	500	75.8
Steps of making <i>tritik</i> and <i>jumputan</i> motif	2, 3	636	1000	63.6
The application of <i>tritik</i> and <i>jumputan</i> motif	4, 5	763	1000	76.3

The data above shows that the application of *tritik* and *jumputan* motifs has the highest percentage that is 76.3% because the phenomenon in the community shows great enthusiasm for the use of cultural products as a form of application of *tritik* and *jumputan* motifs. Then the community knowledge towards traditional knowledge is also in a good category with a percentage level of 75.8%. The last is the method of making *tritik* and *jumputan* motifs that are in a good category with a percentage level of 63.6% where there are still few people who know about the process of making *tritik* motifs and *jumputan*.

**Table 3** Indicators of preference level

The level of preference	Item No.	n	N	%
The feeling of preference in <i>tritik</i> and <i>jumputan</i> motif	1, 2	775	1000	77.5
Goods ownership with <i>tritik</i> and <i>jumputan</i> motif	3, 4	695	1000	69.5
The usage of goods with <i>tritik</i> and <i>jumputan</i> motif	5, 6	651	1000	65.1

The data above shows that the community's preference on *tritik* and *jumputan* motifs has the highest percentage that is 77.5% because the general community is very interested in *tritik* and *jumputan* motifs which are considered attractive and aesthetic. Then community ownership of objects with *tritik* and *jumputan* motifs is also in a good category with a percentage level of 69,5%. The last is the use of objects with *tritik* and *jumputan* motifs that are in the good category with a percentage level of 65,1% where there are still a few people who use *tritik* and *jumputan* motifs.

**Table 5** Results of community knowledge data validity test

No	Community knowledge	Anti-image covariance	Anti-image correlation's
1.	I know that <i>tritik</i> and <i>jumputan</i> are one of traditional knowledge	0.650	0.914 <sup>a</sup>
2.	I know how to make <i>tritik</i> motif	0.278	0.667 <sup>a</sup>
3.	I know how to make <i>jumputan</i> motif	0.372	0.617 <sup>a</sup>
4.	I know that <i>tritik</i> motif can be used to decorate <i>blangkon</i> and <i>kemben</i>	0.370	0.719 <sup>a</sup>
5.	I know that <i>jumputan</i> motif can be used to decorate clothes and interior equipments like bed cover, pillow cover and table cloth	0.522	0.709 <sup>a</sup>

### 3.1 Validity test

Validity test is a measure that shows the level of validity of an instrument. An instrument is said to be valid if the instrument can measure what should be measured. The validity test used is the Factor Analysis Method (KMO). To be able to do a factor analysis, it must be fulfilled the requirement that the value of Kaiser Meyer Olkin Measure of Sampling Adequacy (KMO MSA) must be more than or equal to 0.500 and significance below 0.05. While to know whether each item is valid, it can be seen from the MSA value in anti-image correlation that the value of MSA must at least 0.5 which indicates that the item is valid and can be further analyzed [34].

**Table 4** Results of factor analysis

KMO and Bartlett's test		
Kaiser-Meyer-Olkin measure of sampling adequacy		0.769
Bartlett's test of sphericity	Approx. Chi-square	583.824
	Df	55
	Sig.	0.000

Based on Table 4 of the output of 'KMO and Bartlett's test', it can be seen that in the first test, the value of the KMO-MSA (Kaiser Meyer Olkin measure of adequacy) is 0.769 and is at the significance level of 0.000. With this data it means that it can be analyzed further, because it has met the criteria stating that the KMO MSA value must be greater or equal to 0.500.

Whereas in the output of 'anti-image matrices', the correlation value for validity test can be seen in the numbers with the sign 'a' which indicates the number of MSA (measure of sampling adequacy).

From the data in Table 5, it can be concluded that all items in the community knowledge questionnaire have an MSA value in anti-image correlation above 0.5 which indicates that the item is valid and can be analyzed further. Then from Table 6, it can be concluded that all items in the preference level questionnaire have an MSA value on anti-image correlation above 0.5 which indicates that the item is valid and can be analyzed further.

**Table 6** Results of validity test on the preference level data

No	The level of preference	Anti-image covariance	Anti-image correlation's
1.	I'm interested if there is cloth with <i>tritik</i> and <i>jumputan</i> motif	0.279	0.765 <sup>a</sup>
2.	I'm interested if there is interior equipments such as bed cover, pillow cover, table cloth with <i>tritik</i> and <i>jumputan</i> motif	0.242	0.727 <sup>a</sup>
3.	I have a t-shirt or shirt with <i>tritik</i> and <i>jumputan</i> motif	0.618	0.900 <sup>a</sup>
4.	I have interior equipments such as bed cover, pillow cover and table cloth with <i>tritik</i> and <i>jumputan</i> motif	0.544	0.909 <sup>a</sup>
5.	I frequently use clothes with <i>tritik</i> and <i>jumputan</i> motif because it can make me more confident	0.307	0.814 <sup>a</sup>
6.	I feel more handsome or more beautiful if I wear clothes with <i>tritik</i> and <i>jumputan</i> motif	0.346	0.828 <sup>a</sup>

### 3.2 Reliability test

Reliability test is a tool to measure a questionnaire which is an indicator of a variable. Reliability testing is done by looking at Cronbach alpha. A variable is said to be reliable if it gives a Cronbach alpha value that is > 0.70 [35]. Items that enter testing are valid items only. To determine whether the instrument is reliable, the 0.6 limit can be used. According to Sekaran [36], reliability that is less than 0.6 is not good, while 0.7 is acceptable and above 0.8 is good. The results show Cronbach alpha for each variable as follows:

**Table 7** Results of reliability test

Variables	Cronbach's alpha	No of item	Description
Knowledge of the community	0.791	5	accepted
The level of preference	0.850	6	good

From Table 7, it can be seen that community knowledge has acceptable reliability because Cronbach's alpha is above 0.70, while the preference level has good reliability because Cronbach's alpha is above 0.80.

### 3.3 Inter variable correlation

Based on Table 8, the conclusions can be made as follows: Based on significance value sig. (2-tailed), the value of sig is known, (2-tailed) between the variable of community knowledge (*X1*) with the preference level variable (*Y*) that is 0.000 < 0.05, which means that there is a significant correlation between the variable of community knowledge and the variable of preference level. Based on the Pearson correlations, it is known that the value

of *r* count for the relationship of community knowledge (*X1*) with the level of preference (*Y*) is 0.603 > *r* table 0.195. Therefore it can be concluded that there is a relationship or correlation between the community knowledge variable and the preference level. Because *r* count or Pearson correlation in this analysis is positive, it means that the relationship between the two variables is positive or in other words, the increasing community knowledge will increase the level of community preference.

**Table 8** Results of Pearson's bivariate correlation analysis

		KS	LP
Pearson correlation	KS	1.000	0.603
	LP	0.603	1.000
Sig. (1-tailed)	KS		0.000
	LP	0.000	
N	KS	100	100
	LP	100	100

### 3.4 Hypothesis test

Positive effect of community knowledge on the level of preference:

The t-test basically shows how far the effect of one independent variable individually explains the dependent variable [35]. The t-test is an individual fit test of the variable community knowledge on the level of preference. An independent variable affects the dependent variable can be seen from the significance value of the t-test. That value is said to be significant if the significance level is < 0.05. The results of this test indicate that the path analyzed has a significant effect. It can be seen from the result of the significance level that is smaller than 0.05.

**Table 9** The t-test results of community knowledge with a level of preference coefficients <sup>a</sup>

Mode		Change statistics							
I	R	R square	Adjusted R square	Std. error of the estimate	R square change	F change	df1	df2	Sig. F change
1	0.603	0.364	0.358	3.48396	0.364	56.111	1	98	0.000

**Table 10** Results of *R* value analysis of community knowledge with the level of preference model summary <sup>b</sup>

Mode		Change statistics							
I	R	R square	Adjusted R square	Std. error of the estimate	R square change	F change	df1	df2	Sig. F change
1	0.603	0.364	0.358	3.48396	0.364	56.111	1	98	0.000

The general value (*R*) is 0.603, while the adjusted *R* square value is 0.364. This means that 36.4% of the dependent variable (level of preference) can be explained by its independent variable (community knowledge). The remaining 63.6% is influenced by other variables not included in this research model.

From multiple linear regression analysis, it is known that the regression coefficient of each variable is positive, so that it can be said that community knowledge is positively related and significant with the level of preference.

#### 4 DISCUSSION

This study discusses the effect of traditional knowledge on the level of *community's* preference in using *tritik* and *jumputan* motifs. This happens because traditional knowledge provides understanding to the community in encouraging interest and preference for using the craft products of *tritik* and *jumputan* motifs. The community in general already knows about traditional knowledge. Traditional knowledge as a public knowledge of the traditions exists around the supporting community. Through traditional knowledge, the community has an understanding of culture and traditions that have been inherited from generation to generation. One of the traditions and cultures of the community who still have existence is *tritik* and *jumputan*. *Tritik* and *jumputan* become a local cultural heritage with traditional knowledge, which with its existence it motivates the community to understand and apply *tritik* and *jumputan* in daily life. The analysis results show the large regression coefficient for the public knowledge variable is 0.681 with positive parameters. So that it can be said that community knowledge has a positive and significant effect on society preferences. Based on the significance test of multiple linear regression coefficients for the community knowledge variables, it was found that  $t_{count} > t_{table}$  or  $7.491 > 1.66071$  and the significance value  $< 0.05$ , which is 0.000. The results of the determination coefficient (*R*<sup>2</sup>) are obtained at 0.364. Based on these data it can be concluded that community knowledge has a positive and significant effect on the level of community's preference in wearing the *tritik* and *jumputan* motifs. Conversely, if the traditional knowledge of the community is low, their interest or the level of community's preferences will be decreased,

especially in using cultural products with *tritik* and *jumputan* motifs.

Cultural preservation is the main condition for strengthening character and national identity. In this case, a stimulus is needed to encourage interest as an effort to preserve culture. The provision of stimulus in the form of embedding traditional knowledge is needed, according to what was stated by Wardhana [37] who said that through efforts to cultivate traditional knowledge in the community, then interest will grow in preserving *jumputan* culture as one of the nation's cultural heritage. Utami & Irhandayaningsih [38] reinforced that traditional knowledge or *indigenous knowledge* needs to be owned by the community in order to encourage the preservation of the culture around them. If community's preference in *tritik* and *jumputan* as their own culture can be appreciated properly, then the culture of the community will strengthen. The application of traditional knowledge also needs to be instilled early to encourage the love of young people towards *tritik* and *jumputan*. This is in accordance with what was stated by Darmojo [39] that early childhood education can be applied to batik *jumputan* making so that it can foster the love of early childhood towards their culture. In his research, early childhood can be directly introduced to how to make batik by the teacher so that children can feel the sensation and indirectly explore their creativity so that their interests and talents can be well channelled. As an effort to strengthen cultural identity, especially in the conservation of *tritik* and *jumputan*, community also need to play an active role by using *tritik* products and *jumputan*. In this case, according to what was stated by Kusumadara [40] that cultural sustainability can be realized through the joy and pride of the community towards their culture. Appreciation of the community towards *tritik* and *jumputan* by wearing *tritik* motifs and *jumputan* indirectly encourages cultural preservation.

#### 5 CONCLUSION

This research is an effort to investigate the effect of traditional knowledge towards the level of preference in using product with *tritik* and *jumputan* motif. Based on the analysis which had been conducted, it can be concluded that there is positive and significant effect of community knowledge towards their level of preference.

Traditional knowledge will have positive effect towards the improvement of level of interest in using the product of *tritik* and *jumputan* motif. Cultural preservation becomes the main requirement of strengthening the character and identity of the nation. In this case, it needs stimulus to people the interest as an effort of cultural preservation. Giving stimulus in the form of nurturing traditional knowledge is required. If society interest towards *tritik* and *jumputan* as her own culture and appreciated well, then the culture will be strengthened by itself.

## 6 REFERENCES

- Kaleka N., Hartono E.T.: Various Crafts *Mendong*, Surakarta: Arcita, 2014, ISBN : 9786027849181
- Dransfield J., Manokaran N. (Eds): Plant Vegetable Resources of South-East Asia, No 6: Rattans, Yogyakarta: Gadjah Mada University Press, 1996
- Wasudewa G., Suartini L., Wardana, K.N.H.: Lontar leaf-based sandal craft at Adi Karya Bona village, Blahbatuh district, Gianyar regency (Kerajinan Sandal Berbahan Dasar Daun Lontar Di Perusahaan Adi Karya Desa Bona, Kecamatan Blahbatuh, Kabupaten), Jurnal Pendidikan Seni Rupa, Undiksha 4(1), 2014, pp. 1-12, <http://dx.doi.org/10.23887/jjpsp.v4i1.4253>
- Forsyth, M.: Lifting the lid on "The Community": Who has the right to control access to traditional knowledge and expressions of culture?, International Journal of Cultural Property 19(01), 2012, pp. 1-31, <https://doi.org/10.1017/S0940739112000021>
- Leonidou L.C., Katsikeas C.S.: The export development process: An integrative review of empirical models, Journal of International Business Studies 27(1), 2003, pp. 517-551, <https://doi.org/10.1057/palgrave.jibs.8490846>
- Whitbeck L.B., Hoyt D.R., Stubben J.D., LaFromboise T.: Traditional culture and academic success among American Indian children in the upper Midwest, Journal of American Indian Education 40(2), 2001, pp. 48-60, ISSN: ISSN-0021-8731
- Carpenter K., Katyal S.K., Riley A.R.: In defense of property, The Yale Law Journal 118(6), 2009, pp. 1022-1125
- Schmutz V., Faupel A.: Gender and cultural consecration in popular music, Social Forces 89(2), 2010, pp. 685-707, <https://doi.org/10.1353/sof.2010.0098>
- Nurhayati N.: Preserving the culture of Palembang jumputan cloth art, Kalpataru: Jurnal Sejarah dan Pembelajaran Sejarah. 2(1), 2016, pp. 10-15, DOI: [10.31851/kalpataru.v2i1.1312](https://doi.org/10.31851/kalpataru.v2i1.1312)
- Wijaya M.: Multi commercial economy: The development of socio-economic network complexity of batik industry in Surakarta, Asian Social Science. 5(8), 2009, pp. 102-110, DOI: [10.5539/ass.v5n8p102](https://doi.org/10.5539/ass.v5n8p102)
- Juwita H.S.: Jumputan cloth in Tahunan village, Umbulharjo Yogyakarta (Kain jumputan di kampung Tahunan Umbulharjo Yogyakarta), Jurnal Pendidikan Kriya 7(4), 2018, pp. 230-239
- Masiswo M., Murwati E.S., Farida F.: Effect of stitching distance on tritik patterned fabrics (Pengaruh Jarak Jahitan terhadap Kualitas Desain Kain Bermotif Tritik), Dinamika Kerajinan dan Batik 24, 2007, pp. 23-29, <http://dx.doi.org/10.22322/dkb.v24i1.1020>
- Kartikasari E.: Effect of fixator on noni root extract on jumputan staining (Pengaruh Fiksator Pada Ekstrak Akar Mengkudu Terhadap Pewarnaan Jumputan), Keluarga: Jurnal Ilmiah Pendidikan Kesejahteraan Keluarga 1(2), 2015, pp. 99-105, <http://dx.doi.org/10.30738/keluarga.v1i2.608>
- Oktarizka P.H., Ramadhan M.S.: Development of technical engineering for textile sheets (Pengembangan Teknik Tritik Untuk Lembaran Tekstil), eProceedings of Art & Design 5(3), 2018, pp. 2487-2510, ISSN : 2355-9349
- Titisari B., Kahdar K., Mutiaz I.R.: Development of Dye (Trick) Sewing Techniques with Geometric Patterns (Pengembangan Teknik Jahit Celup (Tritik) dengan Pola Geometris), ITB Journal of Visual Art and Design, 6(2), 2014, pp. 130-142, <http://dx.doi.org/10.5614%2Fitbj.vad.2014.6.2.4>
- Setiawati E., Ningsih R.: Batik jumputan in improving children's creativity (Membatik Jumputan Dalam Meningkatkan Kreativitas Anak), Bidayah : Jurnal Studi Ilmu-Ilmu Keislaman 8(2), 2017, pp. 247-261
- Keller I.: Batik: The Art and Craft, Charles E. Tuttle Company, 6<sup>th</sup> printing edition, Rutland, Vermont & Tokyo, Japan, 1971, ISBN: 978-4629-0957-5 (ebook)
- Handayani D., Tjahjaningsih E., Santoso D.B.: Fabric motif design with tritik fold technique for scarf using indigo blue natural color (Desain motif kain dengan teknik lipat tritik untuk scarf menggunakan warna alam biru indigo), IKRA-ITH INFORMATIKA : Jurnal Komputer dan Informatika 2(1), 2018, pp. 87-93
- Seiler-Baldinger A.: Textiles a Classification of Techniques, Smithsonian Institution Press, USA, 1994, ISBN: 1560985097
- Handoyo J.D.: Batik and Jumputan (Batik dan jumputan), Y. Astuti (Ed.), Pertama, Yogyakarta: PT Macanan Jaya Cemerlang, 2008
- Zulfa I., Karyaningrum A.E.: Application of training methods in jumputan basic ornamental motifs with cold coloring techniques in cultural arts learning and student skills at Sumongbangsri 1 Elementary School in Balongbendo, E-Journal 3(1), 2014, pp. 156-162
- Widodo S.T.: Tie-dye textile craft (ikat celup): a popular aesthetic exploration media (Kriya tekstil tie-dye (ikat celup): sebuah media eksplorasi estetis yang populer), CORAK Jurnal Seni Kriya, 1(2), 2012, pp. 101-122, <https://doi.org/10.24821/corak.v1i2.2316>
- Atmojo S.E.: Learning which oriented on local wisdom to grow a positive appreciation of batik jumputan (ikat celup method), Jurnal Pendidikan IPA Indonesia 4(1), 2015, pp. 48-55
- Ulfa W.R., Lathif M.A., Khutobah K.: Increased fine motoric ability through activities of batik jumputan in children B Group Ash-Syafa'ah Jember 2015/2016 academic year (Peningkatan Kemampuan Motorik Halus Melalui Kegiatan Membuat Jumputan Pada Anak Kelompok B TK Asy-Syafa'ah Jember Tahun Pelajaran 2015/2016), Jurnal Edukasi 3(3), 2016, pp. 35-37, <https://doi.org/10.19184/jukasi.v3i3.4307>

25. Rusyana Y.: *Language and Literature in Educational Gamitan*, Bandung: Diponegoro, 1984
26. Wada Y.I., Kellogg Rice M., Barton J.: *Shibori: The Inventive Art of Japanese Shaped Resist Dyeing: Tradition Techniques, Innovation*, Kodansha International Ltd., 1999, ISBN: 0870115596
27. Mungmachon M.R.: Knowledge and Local Wisdom: Community Treasure, *International Journal of Humanities and Social Science* 2(13), 2012, pp. 174-181
28. Djoemena N.S.: *Batik and Its Kind*, Jakarta: Djambatan, 1990
29. Sahfitri V.: Designing online sales crafts "Kain Jumputan Palembang" (Rancang Bangun Sistem Penjualan Online Kerajinan Kain Jumputan Khas Palembang), *Prosiding SnaPP*, 2017, pp. 1-8
30. Alexon, Sukmadinata N.S.: Development of a culture-based integrated learning model to increase students' appreciation of local culture (Pengembangan model pembelajaran terpadu berbasis budaya untuk meningkatkan apresiasi siswa terhadap budaya lokal), *Jurnal Cakrawala Pendidikan* 6(2), 2010, pp. 189-203, <https://doi.org/10.21831/cp.v2i2.339>
31. Rosyidah N.I., Fatmawati N., Styorini N.E., Wulan R., Aisyah S.: Making batik jumput in Gluranploso Village, Benjeng District, Gresik City (Pembuatan Batik Jumput Di Desa Gluranploso Kecamatan Benjeng Kota Gresik), *Jurnal Penamas Adi Buana* 02(2), 2017, pp. 63-68
32. Syarifuddin D.: Cultural value of tasik parahiyanan batik as a West Java travel attraction (Nilai Budaya Batik Tasik Parahiyanan Sebagai Daya Tarik Wisata Jawa Barat), *Jurnal Manajemen Resort dan Leisure* 14(2), 2017, pp. 9-20, <https://doi.org/10.17509/jurel.v14i2.8530>
33. Sugiono: *Educational Research Methods (Quantitative, Qualitative and R & D Approaches)*, Bandung: Alfabeta, 2011
34. Hair J.F., Anderson R.E., Tatham R.L., Black W.C.: *Multivariate Data Analysis*, Upper Saddle River: Prentice Hall International Inc., 1998
35. Ghozali I.: *Multivariate Analysis Application with IBM SPSS 19 Program*, Semarang: Diponegoro University Publisher, 2011
36. Sekaran U.: *Research Methods for Business: A Skill-building Approach*, John Wiley and Sons Inc., New York, 2003, ISBN: 0471384488
37. Wardhana M.: Growing interest in nusantara cloth through training in making dyed cloth (jumputan) in the community, *Jurnal Desain Interior* 1(2), 2016, pp. 95-100
38. Utami V.A., Irhandayaningsih A.: Knowledge preservation for indigenous sustainability knowledge of pati samin tribe community (Preservasi Pengetahuan Bagi Keberlangsungan Indigenous Knowledge Masyarakat Suku Samin Kabupaten Pati), *Jurnal Ilmu Perpustakaan* 5(1), 2016, pp. 101-110
39. Darmojo K.W., Yuwono B.T., Marwati S.: Batik and keris as the basics of developing local characteristics of education in early childhood (PAUD) (Batik Dan Keris Sebagai Dasar Pengembangan Muatan Lokalpendidikan Berkarakter Padaanak Usiadin (PAUD), *Jurnal Abdi Seni* 8(1), 2017, pp. 50-58
40. Kusumadara A.: Maintenance and preservation of traditional knowledge and expressions of Indonesian traditional culture: Protection of intellectual property rights and non-intellectual property rights, *Jurnal Hukum* 18(1), 2011, pp. 20-41