

Research Title	Potential Growth of Agrotourism: A Case Study of Supporting the Career of Tie Dyeing Fabric with Marigold Flowers
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Year	2018

The purposes of this research were principally two-fold; firstly to develop a community grounded product prototype specifically through employing tie dyeing cotton fabric with marigold flowers which would be aimed to be sold as souvenir products; and secondly to further enhance the potential growth of agrotourism by developing activities which support community career opportunities through such a marigold flower tie dyeing process. The research methodology consisted of both experimental research and action research. The experimental research included the study of temperature and concentration of soy milk applied to the tie dyeing of cotton fabric with marigold flowers and their effects on nitrogen content, colour values, colorfastness to laundering and light. The selection of which patterns to be used for the souvenir products arising from the process was adjudicated by the evaluation of a panel of five experts. Additionally, a study was conducted using a panel of five experts to establish appropriate product models where both the souvenir products and product models selected were rated by the expert panel. The action research consisted of transferring knowledge on the dyeing process and tie dyeing patterns in order to develop community souvenir products where the

population and samples was drawn from 30 farmers and those who expressed an interest from Tambon Hua Taphan, Amphoe Wiset Chai Chan, Ang Thong. Additionally, it included organising DIY learning activities for tourists where the population and sample in such a case was amongst 324 tourists. The research tools in this action research were a learning outcomes questionnaire and a level of satisfaction evaluation form. The data analysis was descriptive statistics.

The results of this research showed that 1) regarding the development of a community product prototype from tie dyeing cotton fabric with marigold flowers to be used as souvenir products, 1.1) using a temperature of 90 degrees Celsius and a concentration of soy water at a ratio of 1:10 resulted in an average of 0.47 gram of nitrogen content per 100 grams of fabric, the average colour value of $L^* a^* b^* C^*$ were at 59.41, 9.48, 50.06 and 79.28 respectively, the colour fastness to laundering, to colour staining and to light were at ranked 3.0, 4.5, and 3.5 respectively, 1.2) the most satisfactory pattern of tie dyeing fabric evaluated by the experts were the striped pattern Style 4, the rectangular pattern Style 2 and the circular motifs pattern Style 1 with an average satisfaction of 4.67, 4.56, and 3.89 recorded respectively, 1.3) appropriated product models for the selected patterns of tie dyeing cotton fabric with marigold flowers were bags with stripe pattern, square cushions with circular motifs pattern, shawls with a circular motif pattern and rectangular cushions with a stripe pattern with an average satisfaction of 4.70, 4.65, 4.60 and 4.55 respectively; 2) regarding enhancing the potential growth of agrotourism by developing activities which support the community based career opportunities of tie dyeing fabric with marigold flowers, 2.1) differences in attendees' learning outcomes before and after training were found to be statistically significantly at a level of 0.05 (mean average of 7.23 and 19.87) and the satisfaction scale for knowledge transfer activities were at the highest level for all items, and 2.2) the satisfaction scale amongst tourists with respect to DIY learning activities also achieved overall the highest level.

Keywords: Tie Dyeing Cotton Fabric with Marigold Flowers; Agrotourism; Community Empowerment.