



Effects of prototype training package on attitudes and constructive participation behavior in university activities of Rajabhat University students



Adul Panya^{a,*}, Kosol Meekhun^b, Laddawan Na Ranong^b

^a Department of Guidance and Counseling Psychology, Faculty of Education, Lampang Rajabhat University, Lampang, 52100, Thailand

^b School of Educational Studies, Sukhothai Thammathirat Open University, Nonthaburi 11120, Thailand

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ABSTRACT

This research investigated using different levels of a training package on the psychological traits and constructive participation behavior of Rajabhat University students. The effect of training was studied using a combination of different levels of psychological readiness and the biosocial background of the trainees to predict the psychological traits and participating behavior after the training. The study employed experimental research. The sample consisted of Lampang Rajabhat University sophomores, who were randomly assigned into 4 groups each of which consisted of 30 students with 3 experimental groups and 1 control group. The instruments were the training package and rating scale questionnaires. The statistics used for testing the hypothesis were analysis of variance, Scheffe's method, and multiple regression analysis. The findings revealed that the effects of training using a package of different components were (1) integrated psychological training together with integrated skills tended to yield the best results when evaluated immediately and one month after the training on students' attitudes and behaviors, (2) the integrated psychological training yielded better results than the other types of training regarding the students' readiness to participate in institutional activities; and (3) integrated skill training yielded better results than any other kind of training on students' achievement motivation and intention for participating in activities when evaluated immediately. Other findings were that the level of a family's income was a combinative factor affecting the training regarding psychological traits training, attitudes, and behaviors of students when participating in the institutional activities. Finally, groups of psychological factors and situational factors together with groups of factors measured after the training predicted student's attitude and behavior when participating in the activities better than only one group of factors. Significant factors found in combination with the training factors were having a good model, achievement motivation, future orientation and self-control, constructive attitude towards participation in the activities, integrated psychological training, and integrated skill training.

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Introduction

Higher education is an advanced educational provision aimed at promoting academic advancement along with the curriculum-supported activities by developing the curriculum to have the activities along with instruction, as well as

* Corresponding author.

E-mail address: adulpy@gmail.com (A. Panya).

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prescribing the measures to support and encourage the students to increasingly take part in the activities. The University's Student Activity Center has been established to encourage the students to participate in all forms of activities (Ministry of University Affairs, 2012, p. 30). Rajabhat University is a local state-run institution, whose goal is to produce graduates to serve the society and community and make them realize the missions of the university (Lampang Rajabhat University, 2012). It is expected to produce graduates who have been equipped with knowledge along with morality, with love and commitment to the locality, and in sufficient numbers and quality as required for the country's university graduate production. Student activity is a part of the university's mission set up to provide services and facilitate the students in the university. The institutional activities that would be successful and truly useful for the students have to be constructively engaged by the students. The problem, however, is that the students have not been enthusiastic about the activities. This is partly a psychological problem. Psychologists both in Thailand and foreign countries have suggested guidelines for positive personal development (Bhanthumnavin, 1993; Seligman & Csikszentmihalyi, 2000). Building up a good character is better than correcting a bad one. Study in behavioral science has found that the development of the concerned psychological constructs and skills could lead to positive behavior which had also been found by others in the field (Khunooapakarn, 2010). The current research sought to determine whether the constructed training program could improve the students' attitude toward constructively taking part in the institutional activities, achievement motivation, future orientation and self-control, and certain skills related to constructive engagement in the institutional activities. Additionally, the study aimed to identify the type of students who would obtain the greatest advantage from this training package.

Objectives of the Research

1. To study the effects of the training using a package of different levels on student's psychological traits and constructive participation behavior in the institutional activities
2. To study the influence of the interaction effects between the training using packages and psychological readiness or biosocial background on the student's trained psychological traits and constructive participation behavior in the institutional activities
3. To find the significant variables that could predict the student's psychological traits and constructive participation behavior in the institutional activities after the training

Literature Review

Behavior of Constructive Participation and Relevant Psychological Traits

The conceptual framework of model interactionism (Craik, Piece, & Walsh, 2000; Endler & Magnusson, 1977) and the ethics theory tree (Bhanthumnavin, 2001) and the

knowledge gained from the related research so far were used to set up the conceptual framework and significant variables for this experimental research. The analysis of the related literature resulted in the following conclusions.

1. Constructive participation behavior in institutional activities: meaning and measurement: Participation in the institutional activities of the students includes the study and searching for knowledge, engaging in the activities or participating in the various types of activities, assisting the instructors, etc. Participation in all these activities would lead to development in various aspects of the students (Astin, 1984, p. 518).

From the documentary analysis, it could be concluded that constructive participation in the institutional activities refers to the expression of interest, participation, and lending support and cooperation to the activities organized by the university or student's organization for the student to have a part in planning and implementing and making the activities meaningful to all concerned. Regarding the measurement of such student's behaviors, there were many approaches developed by the researchers themselves and adopted from what other researchers had developed (Chaijaroen & Ladloy, 1998, p. 111; Khunooapakarn, 2004, p. 22; Kongsang, 2006, p. 202). The instruments used in these research studies were mostly 5 or 6 level-rating scales and some of them were open-ended questions.

This research measured the constructive participation behavior in the institutional activities of the students using the questionnaire constructed by the researcher composed of 25 items each of which included a rating scale from "completely true" to "not true at all" The range of total scores was between 25 and 150. The score reflected constructive participation in the institutional activities.

2. Psychological traits related to the constructive participation behavior in the institutional activities were the attitude and readiness to perform such behavior.

- 1) Analysis of the research concerning the readiness to constructively participate in the institutional activity, its meaning and measurement indicated that the intention to do something was related to the actual behavior (Fishbein & Ajzen, 1980). Such intention could well predict the behavior of the person (Bhanthumnavin & Makaanong, 2009, pp. 118–120; Suwande, 2000, p. 118; Yolao, 1994, p. 45).

This research defined intention to constructively participate in the institutional activities as the amount of intention and preparation of the student to express both positive and negative opinions toward taking part in the institutional activities in a constructive way. The intention to constructively participate was measured by having the student report if he or she was ready to perform the behavior of participating in the university activities in a constructive way using the behavior measuring form consisting of 10 items each of which had six levels of rating from "completely true" to "not true at all" constructed by the researcher.

- 2) Attitude toward constructive participation in the institutional activities: meaning and its measurement. Attitude is an evaluative response to the social situation (Foster & Campbell, 2007). Attitude is a cognitive expression resulting from the individual's evaluation of an object, himself or herself, other individuals, a group of people, action, and event (Barron, 1977). The researchers found that training aiming at developing behavior also involved attitudinal change (Bhanthumnavin & Makanong, 2009, p. 29; Khunooapakarn, 2010, pp. 22–23; Meekhun & Tiemmek, 2002, pp. 24–25). Attitude toward the constructive participation in the institutional activities referred to the feeling of the students trained toward the institutional activities as either useful or not useful, good or bad, desirable or undesirable, satisfied or unsatisfied, worthy or unworthy, etc. All feelings occurred when the individual had passed through the project's training process. In measuring the attitude for this research, the researcher constructed a measurement form composed of 20 six-scale items. The range of the total score was between 20 and 120. A high score measured by this form indicated the student had a good attitude while those with a low score were considered to have a bad attitude.
3. Behavioral development focusing on causal factors (related psychological traits and skills) The Interactionism Model (Endler & Magnusson, 1977) suggests that there are three causal factors of behavior, namely, psychological trait, situation, and psychological traits varying with the situation. The current research chose to develop the crucial psychological traits and skills which were closest to the behavior to see their effect on the behavior, with the former psychological trait and certain perceptions of the situation serving as moderators.

Practicing crucial psychological traits was considered, focusing on three psychological traits. The first was the practicing attitude toward constructive participation in the institutional activities as so far researchers have reported that training on attitude led to behavioral development such as the work conducted by Asawakun (2010, p. 2) and Wibulswasdi (2004). Concerning practicing achievement motivation, it was found that achievement motivation was crucial for the desirable behavior such as in the work done by Chueasathuchon (2003) and Hussanavin (2006). Secondly, the researchers who focused on training the motivation found it affected behavior, such as Bhanthumnavin and Makanong (2009), Khuppapittayanan (2003) and Prapattong (1978). Lastly, the researchers who studied training and future orientation found it had a good impact on the behavioral development such as the works conducted by Asawakun (2010) and Sakmanee (1989). Such training of the three psychological traits was an important process leading to further behavioral development.

Moreover, the research focused on certain aspects of the biosocial background such as gender, field of study, parents' education, and family income (Figure 1).

Methods

The research design employed in this study was “Experimental Group-Control Group: Randomized Participants” (Kerlinger & Lee, 2000, p. 486) with three experimental groups and one control group. Each group was subjected to a different treatment (Table 1).

Participants

The participants were 120 Lampang Rajabhat University students randomly assigned to the four groups each of which was later assigned to a different treatment. Group 1 was given integrated psychological training along with integrated skills training, Group 2 had integrated

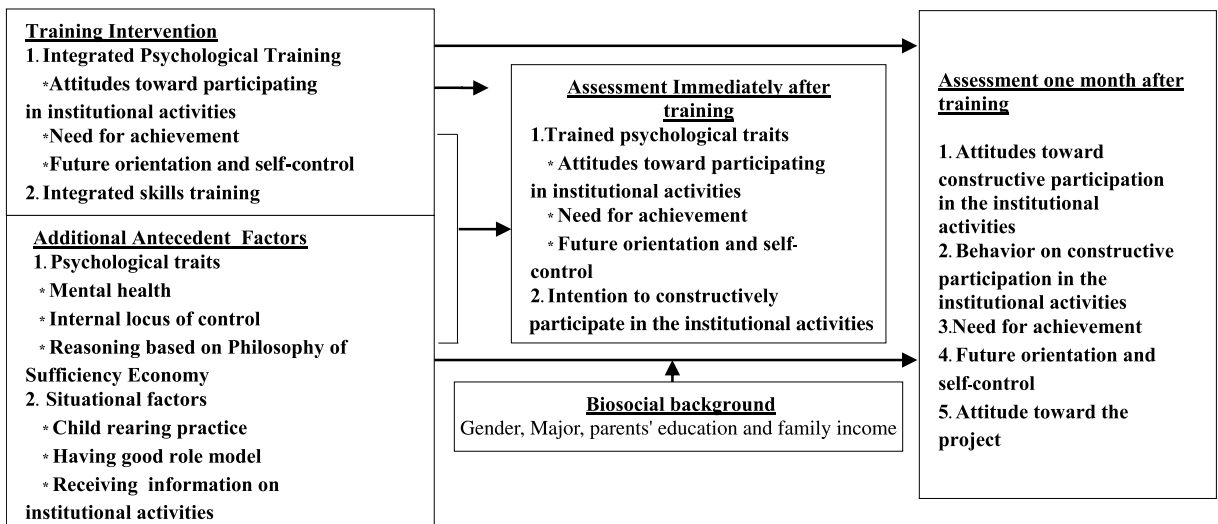


Figure 1 Research conceptual framework

Table 1
Groups and treatments

Group	Treatment	
	Integrated psychological training	Integrated skills training
Experimental group 1	/	/
Experimental group 2	/	–
Experimental group 3	–	/
Control group	–	–

psychological training, Group 3 had integrated skills training, and Group 4 was the control group trained on other skills. Every group had 12 h for the training.

Research Instruments

1. The package on psychological training was composed of nine activities and six activities for integrated skills training for the three experimental groups. A package composed of another fifteen activities was used with the control group.
2. The instrument for measuring the variables utilized 12 measures, with a 6-unit Likert-type rating scale from “completely true” to “not true at all” with item discriminating power (r) from .21 to .95 and reliability (α) between .74 and .90.

Four measures (4 from 12 measures) were developed using a special method: measure the individual's being informed about the institutional activities, the attitude towards the participation, the intention to participate, and the behavior of participation. Besides having been developed through the evaluative process, the form was tested with a large sample of 350 subjects to derive the construct validity basing on exploratory factor analysis and confirmatory factor analysis.

The results of exploratory factor analysis on the instrument revealed that the behavior measured by such an instrument had three components and eight items. Each component had an Eigenvalue from 1.00 upward. Component 1 had three items with a factor loading between .60 and .71. Component 2 had three items and a factor loading between .63 and .81. Component 3 had two items with a factor loading between .72 and .77.

The confirmatory factor analysis indicated that the constructive participation behavior based on the empirical data had a chi-squared value of 18.081, with $df = 17$ and $p = .384$, RMSEA = .013, RMR = .322, CFI = .999, and GFI index = .987.

The form to measure behavior in participating was consistent with the empirical data and good criteria.

Analysis on the components of the other three instruments yielded similar results (Figure 2).

Statistics used for data analysis included basic and inferential statistics such as ANOVA, multiple regression analysis, multiple comparisons using Scheffé's method, exploratory factor analysis, and confirmatory factor analysis using the SPSS and LISREL 872 computer software packages.

Results

1) The results from studying the effect of training package were as follows.

- (1) Using the analysis of variance on achievement motivation, future orientation and self-control, attitude toward the participation, and the intention to participate, which were measured immediately after training, it was found that the four variables varied among the training groups at .001 (Table 2).

In comparing each pair of different treatments utilizing Scheffé's method, it was found that 100 percent training yielded the best results on future orientation and self-control, and attitude. The package with 50 percent integrated skills training had a clear effect on achievement motivation, while 50 percent integrated psychological training produced an outstanding effect on intention to participate. A group that gained a high score for such variables had a significantly higher score than the other groups (Table 2).

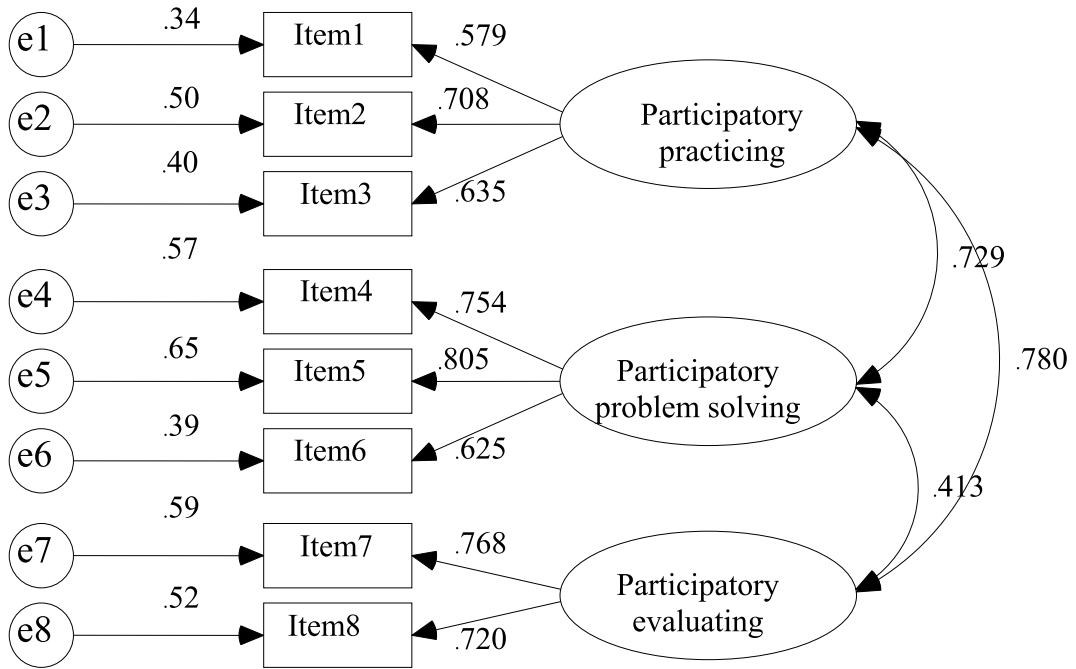
- (2) The results of the analysis of variance revealed that the attitude and behavior of constructive participation in the institutional activities measured one month after the training varied among the training groups and was statistically significant at .001 (Table 3).

The analysis of variance showed that comparing the means of the four different groups utilizing Scheffé's method, the integrated psychological training along with the integrated skill training (100%) had a significant effect on the attitude and behavior of constructive participation in the institutional activities. Clearly, this group had a higher score than the other groups.

- 2) The results of the analysis of variance revealed that achievement motivation, future orientation and self-control, and attitude toward constructive participation varied among the training groups but not with interaction between training and the psychological readiness of the trainees. It was also found that these variables varied with interaction between the training and one of the parameters based on the trainee's biosocial background, namely the family's income (Table 4).

From the analysis of variance, the significant findings from the comparison of means using Scheffé's method were as follows:

- (1) The students who were trained solely on psychological traits (50%, Method1) from a high income family gained positively from the training with higher levels of achievement motivation, attitude, and intention to take part in the activities than those who were from a low income family.
- (2) Students from a low income family, having been trained in psychological traits and integrated skills (100%) or only integrated skills (50%, Method 2), gained more positively from the training with



chi-square=18.081, df=17, chi-square/df=1.064, p=.384,

GFI=.987, CFI=.999, RMSEA=.013, RMR=.322

Figure 2 Model of consistency of components of the form to measure behavior of constructive participation in the institutional activities

Table 2 Analysis of variance on psychological traits by training group

Dependent variable	Statistical value			% Predicted
	MS	F	p	
Achievement motivation	Between 3.689 Within .147	25.083	.000	44.2
Future orientation and self-control	Between 3.014 Within .535	25.083	.001	23.3
Attitude toward constructive participation	Between 3.816 Within .298	12.831	.000	40.1
Intention to participate	Between 3.816 Within .298	19.006	.000	42.8

Table 3 Analysis of variance on attitude and behavior in constructive participation by training groups

Dependent variable	Statistical value			% Predicted
	MS	F	p	
Attitude toward constructive participation in activities	Between 5.348 Within .368	14.537	.000	40.2
Behavior on constructive participation in activities	Between 103.444 Within 17.227	6.005	.001	29.7

Table 4 Analysis of variance of four psychological traits by training group and family's income

Variable	n	F test and level of significance		
		Training group (A)	Family income (B)	(AXB)
Achievement motivation	120	8.403*	1.515	2.911*
Future orientation and self-control	120	7.252*	4.349*	.703
Attitude toward constructive participation in the activities	120	4.123*	.210	3.162*
Intention to constructively participate in the activities	120	5.891*	.929	3.146

* p < .05

achievement motivation or attitude to take part in the activities than the students who were trained solely on psychological traits (50%, Method 1).

- (3) Students from a high income family, if trained solely on psychological traits, would benefit more from the training with the attitude and intention to participate than those having been solely trained on the skills (training integrated skill 50%, Method 2).

3) Multiple regression analysis, (both standard and step-wise procedures) revealed that all 16 variables composing psychological traits, and on the situation

measured before the training, could predict the dependent variable better than any other group of variables. The four psychological trait variables measured immediately after the training and five variables of psychological traits and behavior measured one month after the training were better predictors than other smaller amounts of variables over 5 percent. Such variables could explain 79.6 percent of the variation of the attitude toward constructive participation in the institutional activities, 79.8 percent of the intention to constructively participate in the institutional activities, and 57.6 percent of the constructive participation in the institutional activities. The significant variables that could mainly explain the attitude were the achievement motivation, having a good model, future orientation, and self-control ($\beta = .67, .22$ and $.16$). The variable significantly predicting the intention to participate were the achievement motivation, training method 1, future orientation, and self-control ($\beta = .41, .27$, and $.16$). The variables that could explain the behavior were the attitude and receiving information ($\beta = .70, .10$ and $.02$) (Table 5).

Discussion

The study was conducted to determine the effect of the training on developing attitude and behavior concerning constructive participation in the institutional activities relating to the causal factors of psychological traits and related skills.

First, the research findings revealed that the training on psychological traits along with the skills related to the behavior had more effect on the future orientation and self-control, and attitude than the three other methods of training. The training solely focusing on related skills yielded a better result than the other training methods on achievement motivation. The training solely on psychological traits yielded a better result on intention to participate than the other training methods. All these findings are explained further below.

1) It was found that the training on psychological traits along with related skill training yielded better results than the other methods on future orientation and self-control. The 100percent training option was more

effective. Similar findings have been reported by Khunooapakarn (2010), Meekhun and Tiemmek (2002), and Wibulswasdi (2004). The finding was also supported by Bierhoff (2002, p.193) who insisted that different behavior depended on different motivation.

- 2) Training solely focusing on the skill yielded a better result than the other methods on achievement motivation was also identified by Khunooapakarn (2010, p. 45)
- 3) Training solely focusing on psychological traits had a better result on the intention to constructive participation in the institutional activities than other methods. A similar finding was also obtained by Asawakun (2010).
- 4) Training on psychological traits along with the related skills (100% training) clearly data better effect on attitude toward the constructive participation and behavior on constructive participation in the institutional activities, with Group 1 (100% training) having a better attitude than any of the other groups. Such a finding was congruent with the research conducted by Omoto and Snyder (1995) who found that the students who took part in the activities had positive thinking toward the activities in which they had been participating.

Second, the research also found that the family income had an associative effect on the training. The details are as follows:

- 1) The training solely focusing on psychological traits facilitated students from high income families to higher achievement motivation, attitude and intention to participate in institutional activities in a constructive way than those from low income families.
- 2) Students from low income families who were trained on psychological traits along with the related skills or have higher achievement motivation and attitude toward constructive participation in the institutional activities than if they had been trained solely on the skills.
- 3) Students from high income families who were trained solely on the psychological traits had better results

Table 5
Three important predictor variables

Group (altogether)	n	Predicting percentage				Main predictors	Beta value of the main predictors
		Set 1 predictors A	Set 2 predictors B	Set 3 predictors C	Set 4 predictors (A + B + C)		
Attitude	120	19.8	69.9	73.3	79.6	8,5,9	.67, .22, .16
Intention	120	4.7	69.9	71.8	79.8	8,16,9	.41, .27, .16
Behavior	120	2.7	7.3	46.1	57.6	11,17,6	.70, .10, .02

Set 1 Predictors: Psychological traits 1: Mental health, 2: Self-efficacy, 3: Being reasonable, Situational factors 4: Child-rearing practice, 5: Having good model, 6:Receiving information

Set 2 Predictors: Psychological traits immediately measured after the training 7: Attitude, 8: Achievement motivation, 9: Future orientation and self-control, 10: Intention

Set 3 Predictors: Variables measured one month after the training 11: Attitude, 12: Behavior, 13: Achievement motivation, 14: Future orientation, 15: Attitude toward the project

Set 4 Predictors: Included variables 1 + 2+ 3 + 16: Training 1 (on psychological traits) + 17: Training 2 (on skills)

regarding attitude and intention to participate in institutional activities in a constructive way than if they had been trained solely on the related skills.

These results show that the sole training on psychological traits was suitable for the students from high income families in developing psychological traits related to the behavior of constructive participation in the institutional activities. The exclusive training on psychological traits along with the related skills was relevant to the students from low income families. Training adjusted to the students based on a consideration of their family income level would yield the best results.

Third, all 16 variables could better predict than any group of variables for more than 5 percent. The variables that most accurately predicted the attitude and the intention to constructively participate in the activities were the achievement motivation, and the future orientation and self-control. The variable that could best predict the behavior was the attitude toward constructive participation in the institutional activities and the related skill training. These could be further explained as follows:

- 1) The 16 variables in the four groups could collectively predict attitude, intention and behavior in constructive participation in the institutional activities better than any group of variables for more than 5 percent. This finding was congruent with that found by previous research such as Bhanthumnavin and Makanong (2004) and Keskomon (2009).
- 2) The findings that the independent variables could collectively predict at middle-to-high levels the attitude for 79.6 percent, the intention for 79.8 percent, and behavior for 57.6 percent, reflected the fact that there were many variables that had significant predictability. The ones found from the analysis were the achievement motivation, future orientation, and self-control. The first two variables were main variables in the theory of ethic tree proposed by Bhanthumnavin (2001). The variables had a clear effect on the effectiveness of the training as shown above.

Conclusion

The study revealed that: 1) Psychological training along with skill training (100% training) gave the best results on future orientation and self control and attitude toward behavior concerning constructive participation in the institutional activities at immediate measured, gave the best results on attitude and behavior when measure done month after training, while skill training or psychological training yielded good result on any trait only at immediate measured. 2) Psychological training along with skill training yielded good result on achievement motivation and attitude toward behavior of student from low income family, while solely psychological training yielded good result on attitude toward behavior and intention to participate in institutional activities in a constructive way of student from high income family. 3) Psychological and

situational factor together with post-training factors could more effectively predicted attitude and constructive participation behavior than predicting only one group factor (over 5%), and the significant factors in helping the training factors in prediction were having a good model, achievement motive, future orientation and self-control, attitude towards constructive participation in activities, training 1 (integrated psychological training or psychological trait training) and training 2 (integrated skills training or related skill training).

Recommendations

1. Research on this topic could be re-conducted to be assured of the outcomes, but there is a need to modify the procedure and training activities, and the trainer should be prepared to deal with the sample students and take care in conducting the research.
2. New moderator variables expected to relate more to the dependent variables could be used but the researcher should review the literature related to them.
3. The research could add more time for training the psychological traits, which might lead to much better results for the experimental group subjects than the control group.

Conflict of interest

There is no conflict of interest.

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References

- Asawakun, W. (2010). *Training on psychological traits and skills to mother that a dental health of pre-school child* (Research Report). Bangkok, Thailand: Research fund and Thai behavior System development, Office of the National Research Commission.
- Astin, W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Development*, 40(5), 518.
- Barron, R. A. (1977). *Exploring social psychology* (4th ed.). Needham Heights, MA: A Viacom Company.
- Bhanthumnavin, D. (1993). *Integrated psychological and skill training affecting student developing behavior of secondary school mathematics teacher* (Research Report). Bangkok, Thailand: Research Fund and Thai behavior System development, Office of the National Research Commission. [in Thai]
- Bhanthumnavin, D. (2001). *Tree ethical theory: Research and development person to person* (Research Report) (4th ed.). Bangkok, Thailand: National Institute of Development Administration. [in Thai]
- Bhanthumnavin, D., & Makanong, A. (2004). *Reasoning factors and results of student development behavior of mathematics teacher in lower* (Research Report) (2nd ed.). Bangkok, Thailand: Research Fund and Thai behavior System development, Office of the National Research Commission. [in Thai]
- Bhanthumnavin, D., & Makanong, A. (2009). *Training on psychological traits and integrated skill affecting behaviors of mathematics teacher in lower* (Research Report) (2nd ed.). Bangkok, Thailand: Research Fund and Thai Behavior System Development, Office of the National Research Commission. [in Thai]
- Bierhoff, H. W. (2002). *Prosocial behavior (Social psychology: A modular course)*. Sussex, WI: Psychology Press.

- Chaijaroen, S., & Ladloy, T. (1998). *Participation in activity of student of faculty of agriculture (Bang Phra) Rajamangala Institute of Technology* (Research Report). Bangkok, Thailand: Research Fund of Rajamangala Institute of Technology, Ministry of Education. [in Thai]
- Chueasathuchon, C. (2003). *Indicators of psychosocial behavior of the teachers in saving resources institutions* (Research Report). Bangkok, Thailand: Research Fund and Thai Behavior System Development, Office of the National Research Commission.
- Craik, K. H., Piece, R. H., & Walsh, W. B. (2000). *Person-environment psychology* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.
- Endler, N. S., & Magnusson, D. (1977). Toward an interactional psychology of personality. *Psychological Bulletin*, 83(5), 956.
- Foster, J. D., & Campbell, W. K. (2007). Are there such things as “Narcissists” in social psychology? A taxometric analysis of the Narcissistic Personality Inventory. *Personality and Individual Differences*, 43(6), 1321–1332.
- Fishbein, M., & Ajzen, I. (1980). *Understand attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice-Hall.
- Hussanavin, R. (2006). The lack of professional knowledge in values education. *Teaching and Teacher Education*, 24(7), 1756–1798.
- Kerlinger, F. N., & Lee, H. W. (2000). *Foundations of behavioral research* (4th ed.). New York, NY: Tomson Learning.
- Keskomon, T. (2009). Attribution training versus contact in acculturative learning: A laboratory study. *Journal of Applied Social Psychology*, 15(5), 465–475.
- Khunooapakarn, R. (2004). *Psychosocial aspects involved in the democratic behavior of high school students* (Research Report). Bangkok, Thailand: Office of the National Research Commission. [in Thai]
- Khunooapakarn, R. (2010). *Psycho-socio factors related to reasons affecting to democratic behaviors of Rajabhat students* (Research Report). Bangkok, Thailand: Office of the National Research Commission. [in Thai]
- Khuppapittayanan, M. (2003). *The effectiveness of mental training behavioral sciences to cultivate and develop oral health behavior of elementary school children* (Research Report). Bangkok, Thailand: Research Fund and Thai Behavior System Development, Office of the National Research Commission. [in Thai]
- Kongsang, P. (2006). *Participation of students in activities: Study case of physical education* (Research Report). Yala, Thailand: Physical Education Institute, Yala Campus. [in Thai]
- Lampang Rajabhat University. (2012). *Student's activity guideline* (Research Report). Lampang, Thailand: Lampang Bannakit Printing House.
- Meekhun, K., & Tiemmek, N. (2002). *The result of moral reasoning training towards psychological traits and ethical behaviors of teacher* (Research Report). Bangkok, Thailand: Research Fund and Thai Behavior System Development, Office of the National Research Commission. [in Thai]
- Ministry of University Affairs. (2012). *University student development planning*. Volume 10 (B.E.2010) (Research Report). Bangkok, Thailand: Author.
- Omoto, A. M., & Snyder, M. (1995). Sustained helping without obligation: Motivation, longevity of service, and perceived attitude change among AIDS volunteers. *Journal of Personality and Social Psychology*, 68(4), 671–686.
- Prapatong, S. (1978). *Effect of stories for Thai children and parenting with achievement behavior* (Research Report). Bangkok, Thailand: Kasetsart University. [in Thai]
- Sakmanee, B. (1989). *Building look to improve mental functioning government project* (Research Report). Bangkok, Thailand: Srinakharinwirot University. [in Thai]
- Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychology*, 55(1), 5–14.
- Suwandee, L. (2000). *Psycho-socio factors related to waste reducing behaviors of students in the schools under Rungarun project* (Unpublished master's thesis). National Institute of Development Administration, Bangkok. [in Thai]
- Wibulswasdi, P. (2004). *The psychological training and skills to help my fellow hedge against AIDS in male college students* (Research Report). Bangkok, Thailand: Research Fund and Thai Behavior System Development, Office of the National Research Commission. [in Thai]
- Yolao, D. (1994). *Psycho-socio factors related to social supporting behavior of head Sub-district sanitation station* (Research Report). Bangkok, Thailand: National Institute of Development Administration. [in Thai]