

Effects of Havruta Learning Method on Army New Recruit Training

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Abstract

Background/Objectives: The purpose of this study is to verify the effects of the Havruta learning method which was known as how to enhance inner motives, creativity, and service values of army new recruit training.

Methods/Statistical analysis: Data was collected from March to May, 2018 in 931 trainees attending Korea Army Training Center. The trainees were divided into two groups by stratified sampling method. One is control group (447 trainees), another is experimental group (484 trainees). This study conducted pretest-posttest for both groups by the paired t-test. The questionnaire was composed of Likert scale (5-point) by referring to related literatures.

Findings: We identified the significant change of inner motives and creativity through the paired t-test of the data. Inner motives and creativity were increased significantly in the experimental group, who was performed army new recruit training with Havruta learning method. However, service values were similar in the experimental group and the control group. Therefore, we can say that Havruta learning method is effective to improve inner motives and creativity of trainee. There have been many studies on Havruta learning method for civilian or student. This is the first time army new recruit trainee was studied on Havruta learning method. It is meaningful that the study of Havruta learning method on army new recruit training.

Improvements/Applications: Havruta learning method is needed to apply not only to army new recruit training but also to field forces training.

Keywords: Havruta learning method, army new recruit training, inner motives, creativity, service values.

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1. Introduction

Havruta learning method is from a traditional Jewish text study. Havruta learning method has recently made its way into a variety of professional and lay learning contexts that reflect new social realities in the world of Jewish learning [1]. Havruta learning method is to learn knowledge or skills through inter-communication

between trainees [2]. Recently, there has been a lot of research on the Havruta learning method. But, it has been rarely the studies of army new recruit trainees. In particular, most army trainees accept military service under the conscription system without inner motives, creativity, and values. After new trainees enter the army training center, unilateral training by training instructors

restricts the improvement of inner motives, creativity and values.

Inner motives is defined as the action triggered by the desires that arise from within one's mind [3]. Inner motives mean inclination to feel satisfaction through the process of accomplishing a task and effort to achieve its goals [4]. Creativity is defined as the creation of new and useful ideas by individuals or organizations working together [5]. Therefore, the core source of external or internal innovation for any organization is the creativity of its members that create new and useful products, service or processes that benefit the organization [6]. In service values, the meaning of values can be an individual's goal of action and induce an individual's voluntary action [7]. And the values of the individual affect their happiness and satisfaction [8]. That is, service values induce positive judgment about military service and promote voluntary mind to lead satisfactory military life.

Thus, the main focus of this study is to verify the effects of Havruta learning method to enhance the inner motives, creativity, and service values through army new recruit training. In this study, Havruta learning method was applied to seven subjects (shooting training, guard, first aid, CBR (Chemical, Biological, Radioactive), grenade, individual combat skill and techniques, and moral strength) of experimental curriculum.

2. Literature Review

2.1. Havruta learning method

Havruta came from the Hebrew 'Haver', which means friend [9]. Havruta learning is to read the content with a partner, ask question, discuss the meaning of the content, and continue to explore [10]. If you disagree with the partner's opinion or answer, ask them to explain why or give another idea to them. This is a specialized debate and deeper debate, leading to expansion of thinking and higher thinking, which also enhances

imagination and creativity. According to the Orit Kent study, while Havruta (text study in pairs) is a traditional form of Jewish learning, it has rarely been the subject of empirical research [11]. Building off research on reading and interpreting literary texts and sociocultural theories of learning, the author closely analyzed transcripts and videos of students studying in Havruta. Through this fine grained approach, the study began to conceptualize how interpretive conversation in Havruta unfold, focusing especially on how students develop ideas and insights and how they engaged with and learned from one another. The study concluded that when examined closely, Havruta learning is a complex interaction which includes steps, moves, norms and identifiable modes of interpretative discussion [11]. Also the study analyzed videotapes and transcripts of real life Havruta interactions and proposed a theory of Havruta learning as composed of three pairs of core practices, listening and articulating, wondering and focusing, and supporting and challenging [9]. Steven and Mitchel saw Havruta as a link between cooperative learning and discussion learning. Cooperative learning consists of four or six subgroups of members, while Havruta is composed of two members. What they have in common is interaction and learning [2].

3. Research Method

3.1. Research Design

The main aim of this study is to verify the effects of army new recruit training using the Havruta learning method to enhance the inner motives, creativity, and service values. For this study, an experimental design using pretest-posttest control group design divided into experimental group and control group as shown in figure 1.

3.2. Research Subject

The subject of experiment of this study is about 931 trainees of 1,600 trainees who entered the

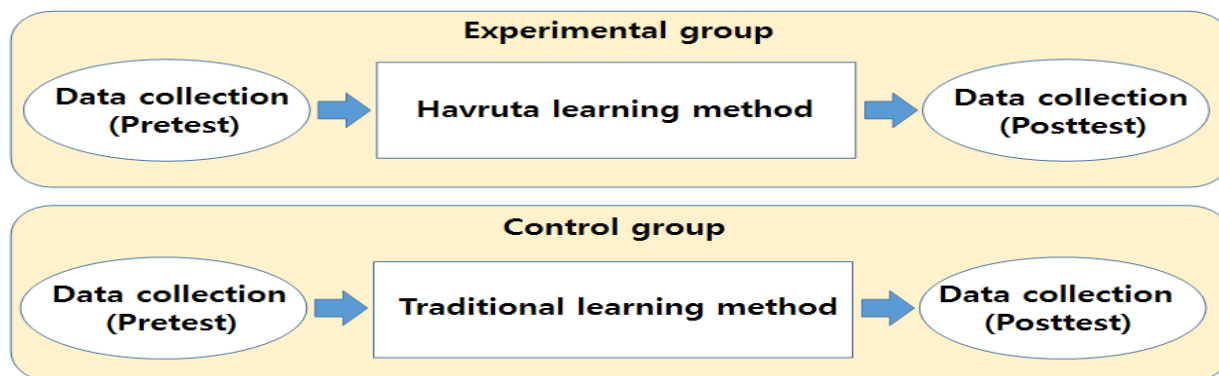


Figure 1. Experimental and Control group

Korea Army Training Center. They were divided as control group (n=447) and experimental group (n=484) by stratified sampling method. This sampling error is $\pm 2.8\%$ at a confidence level 95%.

3.3. Research Measurement

The questionnaire for the research was constructed by the referring to the related literature, and used Likert scale (5-point). The reliability of the questionnaire was applied to the internal consistency method, and the reliability was judged by the coefficient of Cronbach's α . The validity of the questionnaire was analyzed by principal factor analysis. We selected only factors with eigenvalue greater than 1 and factor loading 0.3 or more using Promax factor rotation. The program used for statistical analysis is SPSS 26.0. The questionnaire composition, reliability results and factor analysis results are shown in the table 1 and 2 below.

• Inner motives

Inner motives were measured by reconstructing Kang's questionnaire according to the level of trainees [12]. The questionnaire consists of three sub-factors and seven questions. The questionnaire includes three passion questions, two adventure and two confidence questions. Cronbach's α is 0.845, which shows reliability of the questionnaire. As a result of factor analysis, the KMO (Kaiser-Meyer-Olkin) test value is 0.838, so the questionnaire is appropriate. The Bartlett test value is 1194.570 ($df = 21$, $p < 0.05$), which is appropriate for the research model.

• Creativity

Creativity was measured by reconstructing An's questionnaire according to the level of trainees [13]. The questionnaire consists of three sub-factors and seven questions. The questionnaire includes two openness questions, two cooperation and three workability questions. Cronbach's α is 0.786, which shows reliability of the questionnaire. As a result of factor analysis, the KMO (Kaiser-Meyer-Olkin) test value is 0.804, so the questionnaire is appropriate. The Bartlett test value is 809.562 ($df = 21$, $p < 0.05$), which is appropriate for the research model.

• Service values

Service values were measured by reconstructing Jyong's questionnaire according to the level of trainees [14]. The questionnaire consists of two sub-factors and seven questions. The questionnaire includes four military service questions, three military pride questions. Cronbach's α is 0.841, which shows reliability of the questionnaire. As a result of factor analysis, the KMO (Kaiser-Meyer-Olkin) test value is 0.846, so the questionnaire is appropriate. The Bartlett test value is 1189.065 ($df = 21$, $p < 0.05$), which is appropriate for the research model.

3.4. Research Process

The experimental group were trained seven subjects (shooting training, guard, first aid, CBR, grenade, individual combat skill and techniques, moral strength) by Havruta learning method, while the

Table 1. Questionnaire Composition and Reliability Results

Factor	Number of question	Coefficient of reliability(Cronbach's α)	
Inner motives	7	0.845	0.903
Creativity	7	0.786	
Service values	7	0.841	

Table 2. The results for Factor analysis

Factors	KMO value	Barlett value			Sub-factors	Number of question.
		Chi-squared value	df	p-value		
Inner motives	0.838	1194.570	21	0	Passion	3
					Adventure	2
					Confidence	2
Creativity	0.804	809.562	21	0	Openness	2
					Cooperation	2
					Workability	3
Service values	0.846	1189.065	21	0	Military service	4
					Military pride	3

control group was conducted by the instructor unilaterally.

Training of the experimental group proceeds with prior training, main training and evaluation. Prior training is to ask individual questions about what the trainees will train on the day before the trainees begin the training. Individual questions are discussed by pairs of 2 or 3 people per team. In the main training, a team of 10 or so discussed with minimal instructor involvement. The instructor watches the team discussions and played the role of a mediator so that the trainees could participate and discuss actively. At the time of evaluation, excellent

questions are selected through individual and team evaluation, and supplementary explanation is made for the lacking part.

Training of the control group also proceeds with prior training, main training and evaluation. Prior training is conducted by the instructor explaining the core contents of the subject and after the in-house discussion. Main training is performed by the instructor, and the team masters the training by referring to the assistant's demonstration. Evaluation is conducted by individual and team assessments.

Pretest was carried out using questionnaires to measure the level of inner motives, creativity, and service values for both group after entering the Korea Army Training Center. The pre-homogeneity test between both groups were verified through the independent t-test. Posttest was carried out before the completion of the Korea Army Training Center. The Pretest-Posttest for both group was verified by the paired t-test.

4. Research Results

4.1. Pre-homogeneity test

The pre-homogeneity test was performed to test for equality of attributes before the pre-test of both groups. The pre-homogeneity test between experimental group and control group was conducted as shown in Table 3.

Table 3. The result of pre-homogeneity

Factor	Experimental group (n:484)	Control group (n:447)	t-value	p-value
	mean	mean		
Inner motives	3.99	3.86	-1.56	0.120
Creativity	3.70	3.59	-1.77	0.077
Service values	3.44	3.39	-0.96	0.340

The result of independent t-test for two groups says that the differences between groups were not statistically significant in inner motives ($t=-1.56$, $p\text{-value}=0.120$), creativity ($t=-1.77$, $p\text{-value}=0.077$), and service values ($t=-0.96$, $p\text{-value}=0.340$). Therefore, it can be inferred that the difference in the post-test of the experimental group and the control group is due to Havruta learning method.

4.2. Change of inner motives

The result of paired t-test shows that inner motives is enhanced in the experimental group ($p\text{-value}=0.042$), whereas the result in the control group is not statistically significant ($p\text{-value}=0.125$) as shown in Table 4.

Inner motives consists of three sub-factors such as passion, adventure, and confidence. The passion sub-factor is enhanced only in the experimental group. The confidence is enhanced in both group, whereas the adventure is not significantly enhanced in both group. Army new recruit training using the

Havruta learning method and existing recruit training have a limitation to enhance the adventure for the first enlisted soldier. But the Havruta learning method shows more effective for enhancing the passion and confidence of new recruit.

4.3. Change of creativity

The result of paired t-test shows that creativity is enhanced in the experimental group ($p\text{-value}=0.037$), whereas the result in the control group is not statistically significant ($p\text{-value}=0.052$) as shown in Table 5.

Creativity consists of three sub-factors such as openness, cooperation, and workability. The openness is not statistically significant in both groups. There is no change in openness between both groups because of the characteristics of military, fixed routine, training and barracks, so Havruta learning method and existing training have a limitation to enhance the openness. But Havruta

Table 4. T-test result for inner motives

Factor & Sub-factor		Experimental group (n:484)				Control group (n:447)			
		Pre (mean)	Post (mean)	t-value	p-value	Pre (mean)	Post (mean)	t-value	p-value
Inner motives	Sum	11.73	11.95	2.03	0.042*	11.28	11.67	1.54	0.125
	Passion	3.69	3.85	3.20	0.001*	3.66	3.76	1.80	0.072
	Adventure	4.14	4.09	-1.05	0.296	3.73	3.85	1.51	0.131
	Confidence	3.90	4.01	2.16	0.031*	4.06	4.06	2.54	0.011*

* p < .05

Table 5. T-test result for creativity

Factor & Sub-factor		Experimental group (n:484)				Control group (n:447)			
		Pre (mean)	Post (mean)	t-value	p-value	Pre (mean)	Post (mean)	t-value	p-value
Creativity	Sum	10.93	11.18	2.09	0.037*	10.95	11.18	1.95	0.052
	Openness	3.49	3.55	1.00	0.319	3.51	3.58	1.38	0.168
	Cooperation	3.75	3.85	2.33	0.020*	3.77	3.85	1.70	0.090
	Workability	3.69	3.78	2.07	0.038*	3.67	3.75	1.72	0.085

* p < .05

learning method shows more effective for enhancing cooperation and workability than existing method.

The result of paired t-test shows that service values are enhanced in the experimental group (p-value=0.000) and the control group (p-value=0.001) as shown in Table 6.

4.4. Change of service values

Table 6. T-test result for service values

Factor & Sub-factor		Experimental group (n:484)				Control group (n:447)			
		Pre (mean)	Post (mean)	t-value	p-value	Pre (mean)	Post (mean)	t-value	p-value
Service values	Sum	6.88	7.12	14.59	0.000*	6.86	7.21	3.33	0.001*
	Military service	3.45	3.58	2.03	0.042*	3.51	3.66	2.68	0.007*
	Military pride	3.43	3.54	1.98	0.048*	3.35	3.55	3.31	0.001*

* p < .05

Service values consists of two sub-factors such as military service and military pride. The military service and military pride are enhanced in both group. The reason for this is that human rights and

humanity education, moral strength, and barracks are much better than seven combat skill subjects that apply the Havruta learning method.

5. Conclusion

The objective of this study was to verify the effects of the Havruta learning method which was known as how to enhance inner motives, creativity, and service values on army new recruit training. This work conducted an experimental design using pretest-posttest control group design divided into experimental group who was performed army recruit training with Havruta learning method and control group who was performed existing training method. Havruta learning method was applied to seven subjects (shooting training, guard, first aid, CBR, grenade, individual combat skill and techniques, moral strength). As a research result, Havruta learning method shows effective on enhancement of inner motives and creativity of trainees who entered the Korea Army Training Center. More specifically, as follows. First, passion and confidence among the sub-factors of inner motives are enhanced statistically significant. Second, cooperation and workability among the sub-factors of creativity were enhanced statistically significant. Third, service values were enhanced statistically significant in both Havruta learning method and existing training. Therefore, the Korea Army Training Center should actively apply Havruta learning method not only for army new recruit training but also for field training.

The research direction in the future is to find the ways to enhance inner motives and creativity of members in field training and compare soldiers trained by Havruta learning method to soldiers trained with existing training in terms of the contribution of unit's combat power.

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