Rasch Analysis of Intrinsic Motivation among The Indonesian Army Educational Staff

Dr (Cand.) Didin Zainal Abidin, S.Sos., MM
Doctoral Program, Jakarta State University, Jakarta, Indonesia

Prof. Dr. Wibowo, SE., M.Phil.
Prof. Dr. Moestopo University, Jakarta, Indonesia

Dr. I Ketut Sudiarditha, SE., MM
Jakarta State University, Jakarta, Indonesia

Dr. Maria Grace Herlina, S.Sos., MM
Bina Nusantara University, Jakarta, Indonesia
Email: mgrace.herlina@gmail.com

Abstract

Knowledge has become a prominent asset in any organization. The Army Educational Institution is also aware of maintaining the precious intangible asset inside the organization. Therefore the colonel is designed to be an educator in exchange and disseminate the knowledge, skills, experiences they possessed. Besides, being an educator can be categorized as a job that can motivate the educators intrinsically since it consists of five job dimensions of Oldham and Hackman. This research aims to examine the intrinsic motivation of The Army Educational Staff using Rasch Model Analysis since it is unidimensional research. The results show that only three job dimensions of the Job Characteristics Model can be the intrinsic motivator for The Army Educational Staff.

Keywords: *Job Characteristics Model, Intrinsic Motivation, Learning and Development*

INTRODUCTION

Knowledge has become a prominent asset in any organization.As a dynamic human process, knowledge is the understanding of concepts, ideas, theories, procedures, best practices, know-how, or specialist expertise(Armstrong, 2015, 2010a; F.A.Uriarte, 2008; Geisler, 2009; Sharma and Jaiswal, 2018).

Learning and development aresome of the main functions of human resources management. It provides the mechanism for creating and sharing knowledge, driving organizational change and renewal, and helping to achieve strategic organizational goals.Learning and development is also a process that facilitates the acquisition of knowledge, skills, and experience through learning processes between individuals and between groups, both structured and individual(Armstrong, 2015).

A learning organization can be defined as a place where people continually expand their capacity to create the results, new and expansive patterns of thinking. There are five characteristics of a learning organization: (a) systematic problem solving, (b) experimentation, (c) learning from past experiences, (d) learning from others, (e) transferring knowledge quickly and efficiently throughout the organization –by education and training programs,(Armstrong, 2015).

The Indonesian National Armyis an integral part of Indonesia Archipelago. As the national component, The Army has the main task of maintaining the sovereignty of the country and maintaining the territorial integrity of the unitary state. Due to perform its

functions, The Army needs qualified personnel or human resources. At this point, humancapital becomes very important and plays a crucial role in performing tasks successfully.

Educational institutions within The Army play an essential role in enhancing the skills of the Navy personnel. It means the quality of human capital needs to be higher in making significant contributions to achieve the goals of The Army. One of the efforts inimproving the quality of human resources is through a development program.

The Army Educational Staff, as the agents of knowledge sharing in The ArmyEducational Institutions have very crucial roles, tasks, and responsibilities since they are expected to share knowledge, competencies, skills, and experiences, they possessed. Therefore, The ArmyEducational Staffare supposed to be able to improve the quality of human capital in The Armyto master knowledge and technology.

Motivation is a crucial factor that is needed in the working environment including in The Army. It is a driving force that drives a person's behavior towards a specific goal. Someone will be enthusiastic about fulfilling their duties because of their high motivation. There are two types of motivation, extrinsic and intrinsic, in which the extrinsic motivation is required external stimulations, while the intrinsic motivation is intangible stimulations that come from inside.Meaning,a person arises from the inside without the need for external stimulation, thereby motivation, especially the internal one,is also required by The Army Educational Staff. Internal motivation can build encouragement of their own and are related to performance activities.

This research aims to examine the intrinsic motivation of The ArmyEducational Staff when fulfilling their academic duty as the implementer of the knowledge sharing process among the Indonesian Army.

LITERATURE REVIEW

Knowledge is the most valuable resource for both individuals and societies. Knowledge has the capability to create everything else (Parker et al., 2009). In the knowledge era, the concept of human capitalhas become significant resources for achieving sustainable competitive advantage. Knowledge-based resources consist of skills, abilities, learning skills, knowledge capacity, expertise, adaptability, and changeability.Knowledge, as an organization’s important source, makes a fluid mix of experience, information, insights, possible. It provides a framework for new skills(Mohajan, 2019). There are lots of knowledge in an organization.

Any organizations consist of people. Each people has their capabilities, inherent or learned. Therefore,human capital has the capabilities to create added values to organizations (Sharma and Jaiswal, 2018). Knowledge in organizations can be divided into two types: explicit and tacit. Explicit knowledge can be explained as tangible assets. Those are manuals, procedures, databases, and reportsthat are easily transferred, expressedand shared. While tacit knowledge can be categorized as intangible assets such as hands-on skills, experiences, best practices, know-how, and so on, it is difficult to capture, communicate, or share. Yet, learning and development is one of the tools that facilitate the knowledge-creating process.(Mohajan, 2019; Salicru & Candidate, 2007; Sharma & Jaiswal, 2018; Rehman, Kamil, Mahmood, Salleh, & Amin, 2011).

Learning and Development is one of the primary functionsof Human Resource Management. It provides the mechanism for knowledge creation, knowledge exchange, and accommodates the acquisition of knowledge, skills, and experiences. The focus of learning and development is on individual learning since it is a source of creation, transfer, and use of knowledge(Armstrong, 2015, 2010b, 2010a) (see figure 1 below). Additionally, the organization’sstrategy is developing competencies developmentatthreelevels; individual

level, group level,andorganization levelto achieve the knowledge-based organization.Knowledge management,as a part of learning and development, is the process of creating, managing, and sharing the right informationto the right person in the right place at the right time. And the most significant fundamental for Knowledge Management is Knowledge Sharing. One of the enablers in knowledge sharing is motivation.(Ibragimova et al., 2017; Rehman et al., 2011a).

Motivation comes from the Latin word "movere", which means to move. The basis of motivation is a motive or a reason to do something. Motivation is the strength and direction of behavior and the factors that make people behave in a certain way. Motivation can be divided into two parts, namely intrinsic motivation that comes from within the individual. This is an encouragement that arises because individuals believe that their work is important, engaging, and challenging and that it offers opportunities for growth and development. And the extrinsic motivation associated with factors outside of oneself, the driving force from outside the individual such as money, recognition and promotion. The Job Characteristics Model is one of the classic theories in motivation is one of the enablers that can raise intrinsic motivation.

Intrinsic motivation can be increased through the Job Characteristics Model, developed by Hackman and Oldham, such as workplace diversity, job identity, job meaning, autonomy, and feedback. There are three steps to increase intrinsic motivation: autonomy - encouraging people to set their own schedules and focus on the way the job isdone. Mastery - help people identify the steps they can improve and how they progressed; Purpose – instructions given completed by awhy and how explanation (Armstrong, 2015, 2010b; Halawi et al., 2005; Nili et al., 2013).

Job Characteristics Modelis a model that describes a relationship between job characteristics and individual psychological conditions such as intrinsic motivation, job satisfaction, and performance. According to the work property model, each job can be divided into five job dimensions as follows:(a) diversity of skills or a variety of skills related to a task that can use a range of skills and knowledge of the individual. Understanding the difference of expertise can also be interpreted as the level of suitability of a task with the skills, knowledge, and talents of individuals. If a task matches the skills, knowledge and talents of the individual, the task creates a meaningful feeling for the individual in relation to his task. (b) Next is task identity associated with completing the task. The fulfillment of the relevant tasks is the involvement of individuals in the process of completing a task in its entirety, not only partially. (c) The following dimension is the degree of importance (task significance) refers to the degree of importance or the impact of the result of a task on others, both internally and externally, within the organization. The level of internal importance can be interpreted as the level of importance of a task in the organization, which means that the entire work process in the organization is disrupted when the task is eliminated. The level of external meaning can be interpreted as the feeling of pride that a person has in their task, so that the person proudly discusses the task with relatives, colleagues, or neighbors. (d) Autonomy refers to the degree of independence of a task. This degree of independence can be interpreted as a degree of freedom in completing a task. The degree of freedom is a large space for individuals to be able to plan tasks completion and determine the procedures used to accomplish the task. The last dimension is feedback or re-input. It refers to direct and clear information on the results achieved and the effectiveness of individual performance. The feedback can come from internal feedback that comes from the work itself, or from external feedback such as reports on deviations, budget fluctuations, and customer satisfaction.

Based on Hackman and Oldham’s Theory, people who have a job with the five dimensions of the job will have the following psychological conditions: (a) meaningfulness – the individual who has the feeling that the task has important values in the organization. (b)

Responsibility means personal reliability, (c) knowledge denotes the level of knowledge that people used connected to the actual results of their performance. The outcomes of the job characteristics model are high intrinsic motivation, high growth, high job satisfaction, high work effectiveness.

The research synthesis of intrinsic motivation is a psychological condition that promotes positive behavior (attitude) of the individual towards his work since the individual assesses the task that he performs as important, interesting, free, and capable. The dimensions of intrinsic motivation are (1) challenging tasks (professional challenge) with indicators: high responsibility, a combination of tasks, cross-disciplinary training, and individuals perceive their tasks as important and meaningful. (2) independence (autonomy) with indicators: freedom in the choice of working methods when performing tasks, freedom in setting their own schedules and procedures, control of work results, freedom in determining the speed of execution of tasks, freedom in decisions, (3) variation with indicators: tasks that enable individuals to perform different tasks with different skills, (4) feedback with indicators: providing clear and direct information about the effectiveness of the task, open reciprocal communication channels, providing learning opportunities through feedback, (5) development opportunities with indicators: tasks that offer learning opportunities, have access to learning new skills or knowledge(Ali et al., 2014b, 2014a; Anjum et al., 2014; Armstrong, 2015, 2010b; Baškarada and Koronios, 2018; Batchelor et al., 2014; Blanz, 2017; Faturochman, 1997; Fried And Ferris, 1987; Gagné et al., 2019; Hackman and Oldham, 1976; Hadi and Adil, 2010; Hussein, 2018; Lunenburg, 2011; Muku, 2013; Na-Nan and Pukkeeree, 2013; O'brien, 1982; Oerlemans and Bakker, 2018; Okonkwo et al., 2019; Park, 2017; Sneed and Herman, 1990).

As mentioned previously, knowledge sharing is the most significant fundamental in knowledge management. The exchange of knowledge plays a crucial role in the growth and development of organizations. It is one of the elements of the knowledge management process and affects employees.Knowledge sharing means a set of behaviors in exchanging information and knowledge, including sharing work-related knowledge and expertise with other members. This sharing behavior can contribute to the effectiveness of the organizational goals.There are some effective factors on knowledge sharing: trust, organizational cultures such as innovation, cooperation, reward structure or incentives, and motivation.

Intrinsic motivation is the most autonomous form of motivation. It can be defined as engaging in an activity out of enjoyment and interest. It is also associated with high work performance and effort.Intrinsically motivated people would tend to spontaneously talk about their work passionately. This type of motivation would also be related to knowledge sharing, especially when they believed that sharing knowledge wouldfacilitate efforts in attaining organizational goalsrelated to work performance.Previous studies have indicated that intrinsic motivationwould promote knowledge sharing. It means people get enjoyment when exchanging information. They enjoy mastery-oriented and performance□oriented. In other words, intrinsic motivation is positively related to knowledge sharing(Braja, 2012; Brockner et al., 2006; de Almeida et al., 2016; Gagné, 2009; Hung et al., 2011; Llopis-Córcoles and Foss, 2012; Nili et al., 2013; Rehman et al., 2011b; Schmidt, 2012; Stenius, 2016; Wang et al., 2014; Wang and Noe, 2010).

Job characteristics as a working design is a fundamental factor in human resources management. It focuses on the structure of work and its relevant tasks and activities. Researches on the task characteristics are based on Hackman and Oldham's model that consists of task variety, task identity, task significance, autonomy, and feedbackfrom the job. This feedback is not similar to feedback from others. It is only concerned with the clearness of information that comes from the work itself regarding the quality of performance. Task

autonomy covers scheduling, decision-making, and work method autonomy, which means the level of freedom in performing. A significant task influences others inside or outside of the firm. Autonomy is related to the felt responsibility in the job. It might lead employees to rely more on the idea-sharing and experiences in order to increase job performance. Additionally, it may also entail employees' engagement in a regular knowledge exchange with their peers. The freedom of planning and work independentlyis the most effective human resources strategies for motivating knowledge sharing. Further research looked at autonomy, task identity as respective influencers on employee's knowledge sharing motivation. As a task becomes more varied, it implies a higher frequency of unexpected challenges that required more communication. Therefore it seems increasing the possibility of active knowledge sharing. Both the meaningfulness associated with high task significance and high level of interestmight attract knowledge seekers to consult other employees. These activities can stimulatethe knowledge sharing behavior (Assegaff et al., 2016; Ayodele et al., 2016; Bandile, 2015; Braja, 2012; Brockner et al., 2006; de Almeida et al., 2016; Gagné, 2009; Gagné et al., 2019; Hendriks, 1999; Hung et al., 2011; Llopis-Córcoles and Foss, 2012; Mohammad et al., 2018; Nili et al., 2013; Oye.N.D et al., 2011; Rehman et al., 2014, 2011b; Schmidt, 2012; Stenius, 2016; Susanty and Wood, 2011; Suwanti, 2019; This, 2012; Wang et al., 2014; Wang and Noe, 2010; Wang and Hou, 2015; Wei et al., 2016; Yamao and Fenwick, 2006).

METHODOLOGY

This research is unidimensionaldescriptive research. It only uses one variable to be tested and using quantitative analysis to explain the research results. The variable tested is the Job Characteristics Model that consists of five job dimensions. There are Job Challenges, Job Variety, Job Autonomy, Job Feedback, and Self-Development.

The research was conducted in The Army Academy with 105 educational staff as the participants. All the respondents are male, 16% aged 30-39 years old, 46% aged 40-49 years old, 38% aged more than 50 years old. The minimum military rank to be The Armyeducational staff is a colonel.

The questionnaire constructed from the literature, then tested the validity and reliability questionnaire's itemsusing Rasch Model with the help of Winstep software version 3.73. Based on the test result, there are only 27 items out of 30 items are valid and reliable at 0,89 (see the table below).The Alpha Cronbach shows that the instrument's items are good (range 0,81-0,90 is good). The questionnaires submitted were 105, but only 53 questionnaires could be analyzed since the 50% answers are misfits, so the answers could not represent the variable tested. The data collected will also be analyzed using the Rasch Model with the help of Winstep software version 3.73.

SUMMARY OF 27 MEASURED (NON-EXTREME) Item

	TOTAL SCORE	COUNT	MEASURE	MODEL ERROR	INFIT MNSQ	INFIT ZSTD	OUTFIT MNSQ	OUTFIT ZSTD
MEAN	161.1	53.0	.00	.29	1.00	.0	.98	-.1
S.D.	11.0	.0	.94	.01	.22	1.1	.24	1.1
MAX.	186.0	53.0	1.74	.33	1.48	2.0	1.49	1.9
MIN.	140.0	53.0	-2.26	.28	.62	-2.3	.58	-2.3

REAL RMSE	.30	TRUE SD	.89	SEPARATION	2.91	Item	RELIABILITY	.89
MODEL RMSE	.29	TRUE SD	.89	SEPARATION	3.06	Item	RELIABILITY	.90
S.E. OF Item MEAN = .18								

Table 1. Validity and Reliability Test Result

ANALYSISAND DISCUSSION

As mentioned previously, the research analysis will use the Rasch Model Analysis. The research result shows that the person measure is +1,89 logit; it shows the mean value of

the respondents in the intrinsic motivation instrument. The mean values are higher than 0,00 logit means more respondents tend to agree with most items in the instrument. It can be implied that more respondents have intrinsic motivation when fulfilling the duty as an educator.

The Alpha Cronbach of person reliability is 0,94 means the consistency of the respondents' answers is strong. Other supporting research evidences are INFIT ZSTD 0,00 and OUTFIT ZSTD 0,00. It means that the quality of the research instrument to collect the data is very good since the value is 0,00 (the closer value to 0,00 is better).

SUMMARY OF 51 MEASURED (NON-EXTREME) Person

	TOTAL SCORE	COUNT	MEASURE	MODEL ERROR	INFIT MNSQ	INFIT ZSTD	OUTFIT MNSQ	OUTFIT ZSTD
MEAN	81.0	27.0	1.89	.40	.99	.0	.98	.0
S.D.	10.8	.0	1.77	.02	.29	1.1	.32	1.1
MAX.	95.0	27.0	4.24	.43	1.51	2.5	1.58	1.9
MIN.	56.0	27.0	-1.79	.35	.53	-2.2	.49	-2.2

REAL RMSE .42 TRUE SD 1.72 SEPARATION 4.05 Person RELIABILITY .94
MODEL RMSE .40 TRUE SD 1.73 SEPARATION 4.29 Person RELIABILITY .95
S.E. OF Person MEAN = .25

MAXIMUM EXTREME SCORE: 2 Person

SUMMARY OF 53 MEASURED (EXTREME AND NON-EXTREME) Person

	TOTAL SCORE	COUNT	MEASURE	MODEL ERROR	INFIT MNSQ	INFIT ZSTD	OUTFIT MNSQ	OUTFIT ZSTD
MEAN	82.1	27.0	2.15	.46				
S.D.	11.8	.0	2.20	.27				
MAX.	108.0	27.0	8.93	1.84				
MIN.	56.0	27.0	-1.79	.35	.53	-2.2	.49	-2.2

REAL RMSE .55 TRUE SD 2.13 SEPARATION 3.88 Person RELIABILITY .94
MODEL RMSE .53 TRUE SD 2.13 SEPARATION 4.00 Person RELIABILITY .94
S.E. OF Person MEAN = .30

Person RAW SCORE-TO-MEASURE CORRELATION = .98
CRONBACH ALPHA (KR-20) Person RAW SCORE "TEST" RELIABILITY = .95

Table 2. Statistic Summary

The result shows that 23 staff or 43% The Armyeducational staff are motivated intrinsically since the person measure is above the mean person measure, and 48% are The Armyeducational staff aged more than 50 years old. The next analysis is about the items measured in intrinsic motivation.

TABLE 17.1 C:\Users\admin\Desktop\RUN 2 CLEAN JC ZOU908WS.TXT. Mar 22 10:06 2020
INPUT: 53 Person 27 Item REPORTED: 53 Person 27 Item 4 CATS WINSTEPS 3.73

Person: REAL SEP.: 3.88 REL.: .94 ... Item: REAL SEP.: 2.91 REL.: .89

Person STATISTICS: MEASURE ORDER

ENTRY NUMBER	TOTAL SCORE	TOTAL COUNT	MEASURE	MODEL S.E.	INFIT MNSQ	INFIT ZSTD	OUTFIT MNSQ	OUTFIT ZSTD	PT-MEASURE CORR.	PT-MEASURE EXP.	EXACT MATCH OBS%	EXACT MATCH EXP%	Person
15	95	27	4.24	.41	1.51	2.5	1.44	1.7	.15	.39	40.7	65.1	030E41
39	95	27	4.24	.41	.99	.0	.95	-.1	.35	.39	55.6	65.1	080L52
40	95	27	4.24	.41	.99	.0	.95	-.1	.35	.39	55.6	65.1	081L52
41	95	27	4.24	.41	.99	.0	.95	-.1	.35	.39	55.6	65.1	082L42
44	95	27	4.24	.41	.99	.0	.95	-.1	.35	.39	55.6	65.1	085L52
45	95	27	4.24	.41	1.04	.3	.99	.1	.31	.39	48.1	65.1	086L52
51	95	27	4.24	.41	.99	.0	.95	-.1	.35	.39	55.6	65.1	092L52
14	94	27	4.07	.41	1.15	.8	1.15	.7	.18	.40	51.9	65.2	028E32
20	92	27	3.75	.41	1.12	.6	1.07	.4	.45	.41	66.7	67.3	040E12
27	92	27	3.75	.41	1.05	.3	1.01	.1	.51	.41	74.1	67.3	057E12
33	92	27	3.75	.41	1.05	.3	1.01	.1	.51	.41	74.1	67.3	066L12
7	91	27	3.58	.41	1.31	1.3	1.41	1.5	.24	.41	59.3	68.5	013T31
32	91	27	3.58	.41	1.29	1.3	1.38	1.4	-.05	.41	59.3	68.5	065E12
3	89	27	3.24	.41	1.49	1.8	1.58	1.9	.54	.41	66.7	71.0	006T41
5	89	27	3.24	.41	1.49	1.8	1.58	1.9	.54	.41	66.7	71.0	010T41
21	88	27	3.07	.42	.79	-.7	.73	-.9	.39	.41	70.4	72.2	041E32
36	88	27	3.07	.42	.74	-.9	.68	-1.1	.44	.41	70.4	72.2	074L42
38	88	27	3.07	.42	.74	-.9	.68	-1.1	.44	.41	70.4	72.2	079L32
46	88	27	3.07	.42	.74	-.9	.68	-1.1	.44	.41	70.4	72.2	087L42
47	88	27	3.07	.42	1.28	1.0	1.35	1.2	.70	.41	70.4	72.2	088L42
25	87	27	2.90	.42	1.48	1.5	1.55	1.6	.74	.41	59.3	73.4	054E32
26	86	27	2.72	.43	.82	-.5	.78	-.6	.18	.41	74.1	74.8	056E32
12	85	27	2.53	.43	.77	-.7	.73	-.8	.47	.40	77.8	76.0	026E21
16	82	27	1.97	.43	1.22	.7	1.25	.8	.59	.39	70.4	77.2	032E31
42	82	27	1.97	.43	.53	-1.5	.49	-1.6	.68	.39	85.2	77.2	083L12
43	82	27	1.97	.43	.53	-1.5	.49	-1.6	.68	.39	85.2	77.2	084L12
50	82	27	1.97	.43	.53	-1.5	.49	-1.6	.68	.39	85.2	77.2	091L12
52	82	27	1.97	.43	.53	-1.5	.49	-1.6	.68	.39	85.2	77.2	093L12
53	82	27	1.97	.43	.53	-1.5	.49	-1.6	.68	.39	85.2	77.2	100L32
35	80	27	1.60	.43	.84	-.4	.80	-.5	.65	.38	74.1	76.7	070L32
17	79	27	1.42	.42	.86	-.3	.93	-.1	.01	.38	85.2	76.0	033E32
18	78	27	1.24	.42	1.32	1.0	1.33	1.0	.34	.38	70.4	74.9	038E31
31	78	27	1.24	.42	1.05	.3	1.07	.3	.36	.38	70.4	74.9	063E42
1	76	27	.90	.41	1.22	.8	1.29	.9	.28	.39	66.7	72.4	001T11
6	76	27	.90	.41	1.04	.2	1.08	.4	-.26	.39	74.1	72.4	012T21
29	76	27	.90	.41	.65	-1.3	.52	-1.7	.55	.39	88.9	72.4	059E42
9	74	27	.58	.39	.83	-.6	.84	-.5	.48	.40	70.4	69.4	020E31
28	74	27	.58	.39	.65	-1.3	.61	-1.4	.42	.40	77.8	69.4	058E32
10	72	27	.28	.38	.66	-1.4	.62	-1.5	.48	.40	81.5	66.0	021E31
4	69	27	-.14	.37	.54	-2.2	.50	-2.2	.64	.42	77.8	62.7	007T31

Mean Person 2,15logit

Table 3. Person Measure

TABLE 13.1 C:\Users\admin\Desktop\RUN 2 CLEAN JC ZOU908WS.TXT. Mar 22 10:06 2020
INPUT: 53 Person 27 Item REPORTED: 53 Person 27 Item 4 CATS WINSTEPS 3.73

Person: REAL SEP.: 3.88 REL.: .94 ... Item: REAL SEP.: 2.91 REL.: .89

Item STATISTICS: MEASURE ORDER

ENTRY NUMBER	TOTAL SCORE	TOTAL COUNT	MEASURE	MODEL S.E.	INFIT MNSQ	INFIT ZSTD	OUTFIT MNSQ	OUTFIT ZSTD	PT-MEASURE CORR.	PT-MEASURE EXP.	EXACT MATCH OBS%	EXACT MATCH EXP%	Item
4	140	53	1.74	.28	1.07	.4	1.06	.3	.69	.73	62.7	71.0	C4
5	143	53	1.50	.28	1.48	2.0	1.49	1.9	.63	.72	52.9	71.4	C5
15	147	53	1.17	.29	.77	-1.1	.87	-.5	.78	.70	78.4	71.3	V3
21	151	53	.84	.29	.78	-1.1	.75	-1.2	.70	.69	78.4	70.6	F3
3	152	53	.76	.29	1.22	1.1	1.18	.9	.58	.68	60.8	70.2	C3
14	152	53	.76	.29	.83	-.8	.82	-.8	.78	.68	72.5	70.2	V2
6	153	53	.68	.29	1.07	.4	1.06	.4	.76	.68	60.8	69.9	C6
13	155	53	.52	.29	.77	-1.2	.74	-1.3	.79	.67	72.5	68.9	V1
10	156	53	.44	.29	.80	-1.0	.77	-1.1	.71	.67	70.6	68.3	A4
9	157	53	.36	.29	.62	-2.3	.58	-2.3	.74	.67	72.5	67.6	A3
11	157	53	.36	.29	.95	-.2	.93	-.3	.63	.67	68.6	67.6	A5
16	158	53	.27	.29	.93	-.3	.88	-.5	.61	.66	70.6	66.9	V6
1	159	53	.19	.29	1.38	1.9	1.31	1.4	.53	.66	54.9	66.5	C1
7	161	53	.03	.29	1.17	.9	1.24	1.2	.44	.65	60.8	66.4	A1
17	161	53	.03	.29	1.24	1.3	1.21	1.1	.73	.65	62.7	66.4	V7
18	161	53	.03	.29	.83	-1.0	.78	-1.1	.72	.65	56.9	66.4	V8
22	161	53	.03	.29	1.27	1.4	1.41	1.9	.62	.65	49.0	66.4	F4
12	163	53	-.13	.29	.80	-1.1	.71	-1.5	.67	.65	84.3	66.9	A6
19	164	53	-.22	.29	1.01	.1	.99	.0	.67	.65	51.0	67.0	F1
2	166	53	-.38	.29	1.11	.6	1.07	.4	.66	.64	72.5	67.5	C2
8	168	53	-.55	.29	.99	.0	.97	-.1	.62	.64	64.7	68.3	A2
20	171	53	-.81	.30	1.38	1.9	1.39	1.8	.49	.64	47.1	69.2	F2
23	174	53	-1.08	.30	1.00	.1	1.02	.2	.55	.63	66.7	70.2	D1
27	174	53	-1.08	.30	.80	-1.1	.79	-1.0	.72	.63	74.5	70.2	D6
24	176	53	-1.26	.30	.78	-1.2	.72	-1.4	.69	.63	72.5	71.3	D2
26	183	53	-1.94	.32	1.13	.7	1.00	.1	.61	.62	66.7	75.2	D4
25	186	53	-2.26	.33	.75	-1.2	.70	-1.2	.71	.62	88.2	76.5	D3
MEAN	161.1	53.0	.00	.29	1.00	.0	.98	-.1			66.4	69.2	
S.D.	11.0	.0	.94	.01	.22	1.1	.24	1.1			10.2	2.6	

Mean Item 0,00logit

Table 4. Item Measure

Based on the research analysis, it can be seen that giving priority to the quality work in teaching is the hardest item in measuring intrinsic motivation. This item is a part of the job challenge dimension in the job characteristics variable. Another hard item is teaching in a way that students can understand; it is also a part of job challenge dimension in job characteristics variable. Both items are hard items to agree with. The third hard item is giving meaningful educational contributions to The Army Educational Institution. It is a part of the job variety dimension in job characteristics variable.

On the other hand, the research analysis shows that taking time to learn in order to add working experiences as an educator is the easiest item to agree with. Furthermore, optimizing the opportunity to learn skills at The Army Educational Institution and taking time to learn in broadening existing knowledge are also easy items to agree with. These results imply that The Army Educational Staff realizes that being an educator is a learning time to self-development. It supports the Human Resources main theory about learning and development. It proves that learning and development can facilitate the acquisition of knowledge, skills, and experience through learning processes between individuals and between groups, both structured and individual(Armstrong, 2015).

The next analysis is about the dimensions of the Job Characteristics Model (JCM). The first dimension of JMC is about challenging tasks or professional challenges. The result shows that 86% of The Army Educational Staff are aware of renewing the knowledge possessed in the process of learning. It is proved that a learning organization can facilitate people to continually expand their capacity to create new and expansive patterns of thinking(Armstrong, 2015). The research results also show 40% of the Army Educational Staff disagreed with the item about the quality results in teaching as a challenging task, and 36% The Army Educational Staff disagreed with the item about teaching in a way that students can understand as a challenging task. It can be inferred that being an educational staff is not a challenging task for The Army Educational Staff so it cannot motivate them intrinsically to share knowledge in the learning process even though they are aware of renewing the knowledge possessed when learning process begun.

The second dimension of the Job Characteristics Model (JCM) is autonomy or independence. The result shows that 88% of the Army Educational Staff are completing the teaching assignment independently, and 89% of the Army Educational Staff are monitoring

the students' results independently. It can be inferred that the freedom given to The Army Educational Staff in completing and monitoring the learning process can motivate them intrinsically.

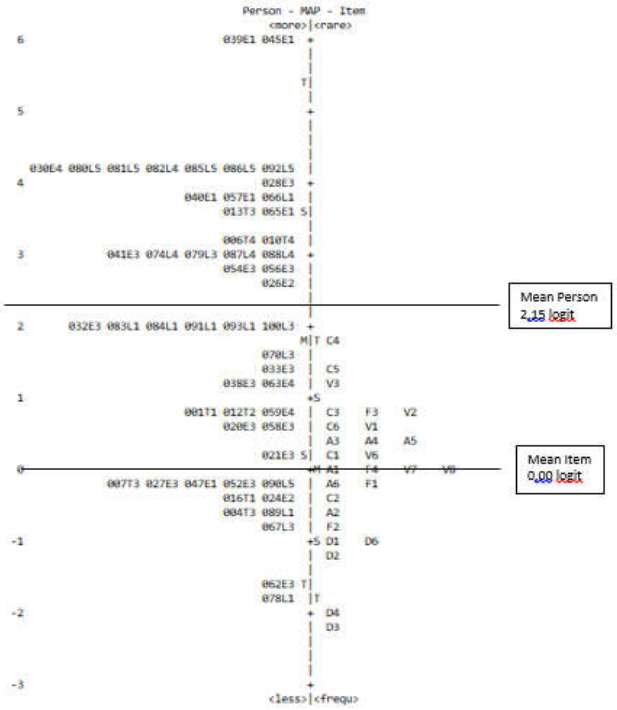

Figure1. Wright Map of Person and Item Measure

The third dimension of the Job Characteristics Model (JCM) is job variety. The result shows that 32% of the Army Educational Staff disagreed with the item about giving meaningful educational contributions to The Army Educational Institution. They also disagreed with the item about optimizing skills and experiences in the learning process (40%) even though they keep guiding the students in the learning process. It can be inferred that the job variety in a duty of being an educational staff is not a challenging task for The Army Educational Staff so it cannot motivate them intrinsically to share knowledge in the learning process even though they keep guiding the students in the learning process.

The fourth dimension of the Job Characteristics Model (JCM) is job feedback. The result shows that 90% of the Army Educational Staff is trying to get complete and transparent information about the learning process effectiveness, and 83% The Army Educational Staff are trying to establish a communication between fellow educators about the learning process effectiveness. However, 23% of The Army Educational Staff are still quite hard to receive open feedback from the students about the learning process effectiveness. It can be inferred that the job feedback still can be an intrinsic motivation in fulfilling the duty of being a military educational staff.

The fifth dimension of the Job Characteristics Model (JCM) is self-development. The result shows thatThe Army Educational Staff are aware of being an educational staff is an opportunity for self-development. 97% ofthe staff are taking time to learn in order to add working experiences, 94% of the staff are optimizing the opportunity to learn skills at The Army Educational Institution, and 95% of the staff are taking time to learn in broadening existing knowledge. It can be inferred that the self-development is the best intrinsic motivator when fulfilling the duty of being a military educational staff since all indicators of self-development items are easy to agree with. It is proven that learning and development can

facilitate the acquisition of knowledge, skills and experience through learning processes between individuals and between groups, both structured and individual and it can facilitatepeople to continually expand their capacity to create new and expansive patterns of thinking(Armstrong, 2015).

CONCLUSIONS

Based on the research results, it can be inferred that The Army Educational Staff are aware of their duty as an educator. When fulfilling their duty as an educator, they realize that it is a time to develop themselves through knowledge exchange. Therefore, they are optimizing and renewing their possessed knowledge to broaden their capabilities. The fifth dimension of the Job Characteristics Model is the strongest intrinsic motivators for The Army Educational Staff. The next strong intrinsic motivator is job feedback. Getting complete and clear information about the learning process effectiveness can become an intrinsic motivator for The Army Educational Staff to be better in the learning process. They are also trying to establishcommunication between fellow educatorsto be better in the learning process, although they are still quite hard to receive open feedback from the students about the learning process'effectiveness. However, the job feedback still can be an intrinsic motivator for The Army Educational Staff.

The weakest intrinsic motivator for The Army Educational Staff is a job variety. They do not feel that being an educator can give meaningful educational contributions to The Army Educational Institution. They also do not feel that being an educator can optimize their skills and experiences through the learning process. Another weak dimension is a job challenge. Two indicators of the job challenge dimension are the hard items to agree with. It means that it is very hard for The Army Educational Staff to prioritize the quality of the learning process and find a learning method to deliver the teaching materials better and easy to understand. Nevertheless, The Army Educational Staff still the responsibility to renew the knowledge possessed when the learning process began.

In conclusion, The Job Characteristics Model is believed as a good intrinsic motivator since it provides a job with five job dimensions, which can lead a person the be more motivated intrinsically. Based on the research results, it is showed that duty as an educator for the army personnel is not a challenging job since it cannot challenge the person to optimize the possessed capabilities even though the freedom, the feedback and the opportunity to self-development can be a good intrinsic motivator for them. It implies that an army institution can optimize the duty as an educator as a part of self-development and can use the achievement as an educator as an added value to get higher military rank.

This research still has some limitations, especially in the number of respondents. It would be better for future research to add more respondent to use the intrinsic motivator instruments besides the instrument still need to be improved by adding more indicators.

ACKNOWLEDGMENTS

We would like to express our gratitude and appreciation to Mr. Bambang Sumintono, Ph.D, the one who taught about Rasch Model Analysis, and giving the opportunities to practice more using the Winstep software version 3.73 in Rasch Model Analysis.

REFERENCES

Ali, S.A.M., Said, N.A., Yunus, N.M., Kader, S.F.A., Latif, D.S.A., Munap, R., 2014a. Hackman and Oldham's Job Characteristics Model to Job Satisfaction. Procedia - Soc. Behav. Sci. 129, 46–52. https://doi.org/10.1016/j.sbspro.2014.03.646

Ali, S.A.M., Said, N.A., Yunus, N.M., Kader, S.F.A., Latif, D.S.A., Munap, R., 2014b. Hackman and Oldham's Job Characteristics Model to Job Satisfaction. Procedia - Soc.

Behav. Sci. 129, 46–52. https://doi.org/10.1016/j.sbspro.2014.03.646
Anjum, Z.-U.-Z., Fan, L., Javed, M.F., Rao, A., 2014. Job characteristics Model and job Satisfaction. Int. J. Educ. Res. 2, 242–262.
Armstrong, M., 2015. Handbook of Reward Management Practice. London.
Armstrong, M., 2010a. Human Resources Management.
Armstrong, M., 2010b. Human Resources Management Practices. KoganPage, London.
Assegaff, S., Kurniabudi, K., Fernando, E., 2016. Impact of Extrinsic and Intrinsic Motivation Element to People Knowledge Sharing Behavior at Virtual Communities of Practices in Indonesia. Indones. J. Electr. Eng. Comput. Sci. 1, 619. https://doi.org/10.11591/ijeecs.v1.i3.pp619-626
Ayodele, F.O., Haron, H.B., Juan, S.H., 2016. Review on Knowledge Sharing : Barriers and Motivations. Natl. Conf. Posgrduate Res. 225–237.
Baškarada, S., Koronios, A., 2018. The 5S organizational agility framework: a dynamic capabilities perspective. Int. J. Organ. Anal. 26, 331–342. https://doi.org/10.1108/IJOA-05-2017-1163
Batchelor, J.H., Lawlor, K.B., Burch, G.F., 2014. The Job Characteristics Model: An Extension to Entrepreneurial Motivation. Small Bus. Institute® J. Small Bus. Institute® 10, 1–10.
Blanz, M., 2017. Employees' job satisfaction: A test of the job characteristics model among social work practitioners. J. Evidence-Informed Soc. Work 14, 35–50. https://doi.org/10.1080/23761407.2017.1288187
Braja, D., 2012. No Titleהקיווי ענף: מצב תמונת. הנוטע עלון 66, 37–39.
Brockner, J., Flynn, F.J., Dolan, R.J., Ostfield, A., Pace, D., Ziskin, I. V., 2006. Commentary on "radical HRM innovation and competitive advantage: The Moneyball story." Hum. Resour. Manage. 45, 127–145. https://doi.org/10.1002/hrm
de Almeida, F.C., Lesca, H., Canton, A.W.P., 2016. Intrinsic motivation for knowledge sharing – competitive intelligence process in a telecom company. J. Knowl. Manag. 20, 1282–1301. https://doi.org/10.1108/JKM-02-2016-0083
F.A.Uriarte, J., 2008. Introduction to Knowledge Management. Trends Enterp. Knowl. Manag. 21–43. https://doi.org/10.1002/9780470612132.ch1
Faturochman, 1997. JURNAL - The Job Characteristics Theory.pdf.
FRIED, Y., FERRIS, G.R., 1987. the Validity of the Job Characteristics Model: a Review and Meta□Analysis. Pers. Psychol. 40, 287–322. https://doi.org/10.1111/j.1744-6570.1987.tb00605.x
Gagné, M., 2009. A model of knowledge-sharing motivation. Hum. Resour. Manage. 48, 571–589. https://doi.org/10.1002/hrm.20298
Gagné, M., Tian, A.W., Soo, C., Zhang, B., Ho, K.S.B., Hosszu, K., 2019. Different motivations for knowledge sharing and hiding: The role of motivating work design. J. Organ. Behav. 40, 783–799. https://doi.org/10.1002/job.2364
Geisler, E., 2009. Principles of Knowledge Management. M.E. Sharpe Inc.
Hackman, J.R., Oldham, G.R., 1976. Motivation through the design of work: test of a theory. Organ. Behav. Hum. Perform. 16, 250–279. https://doi.org/10.1016/0030-5073(76)90016-7
Hadi, R., Adil, A., 2010. Job characteristics as predictors of work motivation and job satisfaction of bank employees. J. Indian Acad. Appl. Psychol. 36, 294–299.
Halawi, L.A., Aronson, J.E., McCarthy, R. V, 2005. Resource-Based View of Knowledge Management for Competitive Advantage in an organization. Electron. J. Knowl. Manag. 3, 75–86.
Hendriks, P., 1999. Con_20110806223415_U.Pdf. Knowl. Process Manag. 6, 91–100. https://doi.org/10.1002/(SICI)1099-1441(199906)6:2<91::AID-KPM54>3.0.CO;2-M

Hung, S.Y., Durcikova, A., Lai, H.M., Lin, W.M., 2011. The influence of intrinsic and extrinsic motivation on individuals knowledge sharing behavior. Int. J. Hum. Comput. Stud. 69, 415–427. https://doi.org/10.1016/j.ijhcs.2011.02.004

Hussein, A., 2018. Test of Hackman and Oldham's Job Characteristics Model at General Media Sector. Int. J. Acad. Res. Bus. Soc. Sci. 8, 352–371. https://doi.org/10.6007/ijarbss/v8-i1/3813

Ibragimova, B., D. Ryan, S., C. Windsor, J., R. Prybutok, V., 2017. Understanding the Antecedents of Knowledge Sharing: An Organizational Justice Perspective. Informing Sci. Int. J. an Emerg. Transdiscipl. 15, 183–205. https://doi.org/10.28945/1694

Job characteristics and its outcomes - A comparative work design study of non-profit and profit organizations . Beate Jelstad Diakonhjemmet University College Norway, n.d. 0–17.

Llopis-Córcoles, Ó., Foss, N.J., 2012. Does a Cooperative Climate Always Lead To Knowledge Sharing ? the Roles of Intrinsic Motivation and Job Autonomy. 2012 Conf. Organ. Learn. Knowl. Capab. 3496387700.

Lunenburg, F.C., 2011. Motivating by Enriching Jobs to Make Them More Interesting and Challenging. Int. J. Bus. Manag. 15, 1–11.

MOHAJAN, H.K., 2019. Knowledge Sharing among Employees in Organizations. J. Econ. Dev. Environ. People 8, 52. https://doi.org/10.26458/jedep.v8i1.612

Mohammad, M.T.F., Alajmi, S.A., Ahmed, E.A.R.D., 2018. Motivation Factors Toward Knowledge Sharing Intentions and Attitudes. Int. J. Bus. Adm. 9, 110. https://doi.org/10.5430/ijba.v9n4p110

Muku, A.Z.A., 2013. Job Characteristics Model of Hackman and Oldham in Garment Sector in Bangladesh: A Case Study in Savar Area in Dhaka District. Int. J. Econ. Financ. Manag. Sci. 1, 188. https://doi.org/10.11648/j.ijefm.20130104.12

Na-Nan, K., Pukkeeree, P., 2013. Influence of Job Characteristics and Job Satisfaction Effect Work Adjustment for Entering Labor Market of New Graduates in Thailand. Int. J. Bus. Soc. Sci. 4, 95–103.

Nili, D.M., Isfahani, D.A.N., Tanhaei, M.H., 2013. Knowledge Sharing and its Impact on Employees' Motivation. Int. J. Acad. Res. Progress. Educ. Dev. 2, 142–152. https://doi.org/10.6007/ijarped/v2-i3/95

O'brien, G.E., 1982. Evaluation of the job characteristics theory of work attitudes and performance. Aust. J. Psychol. 34, 383–401. https://doi.org/10.1080/00049538208254733

Oerlemans, W.G.M., Bakker, A.B., 2018. Motivating job characteristics and happiness at work: A multilevel perspective. J. Appl. Psychol. 103, 1230–1241. https://doi.org/10.1037/apl0000318

Okonkwo, E.A., Obi, C.A., Ekeke, E.E., 2019. Moderating Roles of Job Characteristics in the Relationship between Job Stress and Job Involvement among Nurses 8, 1–7. https://doi.org/10.9790/1959-0802120107

Oye.N.D, Salleh, M., Noorminshah, 2011. Knowledge Sharing in Workplace: Motivators and Demotivators. Int. J. Manag. Inf. Technol. 3, 71–84. https://doi.org/10.5121/ijmit.2011.3406

Park, S., 2017. Motivating raters through work design: Applying the job characteristics model to the performance appraisal context. Cogent Psychol. 4, 1–13. https://doi.org/10.1080/23311908.2017.1287320

Parker, J.D.A., Saklofske, D.H., Wood, L.M., Collin, T., 2009. The Role of Emotional Intelligence in Education 239–255. https://doi.org/10.1007/978-0-387-88370-0_13

Rehman, M., Kamil, A., Mahmood, B., Salleh, R., Amin, A., 2011a. Review of Factors Affecting Knowledge Sharing Behavior. 2010 Int. Conf. E-business, Manag. Econ. 223–

227.
Rehman, M., Kamil, A., Mahmood, B., Salleh, R., Amin, A., 2011b. Review of Factors Affecting Knowledge Sharing Behavior. 2010 Int. Conf. E-business, Manag. Econ. 3, 223–227.
Rehman, M., Mahmood, A.K., Salleh, R., Amin, A., 2014. Work design characteristics and knowledge sharing behavior among Software Engineers. 2014 Int. Conf. Comput. Inf. Sci. ICCOINS 2014 - A Conf. World Eng. Sci. Technol. Congr. ESTCON 2014 - Proc. https://doi.org/10.1109/ICCOINS.2014.6868447
Salicru, S., Candidate, D.B.A., 2007. Intellectual Capital and Company Performance – Literature Review and Research Opportunities in Australia This paper was presented at the 21st annual Australian and New Zealand Academy of Management Conference - ANZAM 2007 (Managing Our Intellectual and S. Business.
Schmidt, P., 2012. Work Design as Antecedent of Knowledge Sharing Behavior 1–30.
Sharma, K., Jaiswal, N., 2018. Human Capital Management: An Emerging Human Resource Management Practice. Int. J. Econ. Manag. Stud. 5, 37–42. https://doi.org/10.14445/23939125/ijems-v5i3p106
Sneed, J., Herman, C.M., 1990. Influence of job characteristics and organizational commitment on job satisfaction of hospital foodservice employees. J. Am. Diet. Assoc. 90, 1072–1076.
Stenius, M., 2016. Why Share? Motivational Predictors of Individual Knowledge Sharing in Expert Work.
Susanty, A., Wood, P., 2011. the Motivation To Share Knowledge of the Employees in the Telecommunication Service Providers in Indonesia. Ipedr.Net 5, 159–162.
Suwanti, S., 2019. Intrinsic motivation, knowledge sharing, and employee creativity: A self-determination perspective. Int. J. Sci. Technol. Res. 8, 623–628.
This, D., 2012. Tailoring knowledge sharing using task characteristics a case study in the maritime industry Tailoring knowledge sharing using task characteristics : a case study in the maritime industry by Mark Aelmans Student identity number 0574822 in partial fulfilme.
Wang, S., Noe, R.A., 2010. Knowledge sharing: A review and directions for future research. Hum. Resour. Manag. Rev. 20, 115–131. https://doi.org/10.1016/j.hrmr.2009.10.001
Wang, S., Noe, R.A., Wang, Z.M., 2014. Motivating Knowledge Sharing in Knowledge Management Systems: A Quasi-Field Experiment. J. Manage. 40, 978–1009. https://doi.org/10.1177/0149206311412192
Wang, W.T., Hou, Y.P., 2015. Motivations of employees' knowledge sharing behaviors: A self-determination perspective. Inf. Organ. 25, 1–26. https://doi.org/10.1016/j.infoandorg.2014.11.001
Wei, H., Subriadi, A.P., Aini, N., Rozanda, N.E., 2016. E Mployees C Haracteristics in 67–81.
Yamao, S., Fenwick, M., 2006. Knowledge transfer success in MNEs: the role of training and development and knowledge transfer capacity 1–9.