

# ISSUES IN INTRODUCING TRAINING NEEDS ANALYSIS IN SLOVENIA'S PUBLIC ADMINISTRATION

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## Abstract

A modern public administration requires professional, skilled, and well-trained civil servants. Training is an important development component of a modern civil service and its employees. As a basic method of human resources development, training should be adjusted to the administrative requirements and should be conducted continuously and systematically. All efficient training programs start with a needs assessment. Since training needs assessment is a critical part of the training function, this paper examines the practices of training needs assessment in a branch of Slovenia's public administration. Our research assessed the influence of civil servants' demographics characteristics on their attitude towards assessment. The results obtained indicate that the influence of hierarchical position prevailed, although the managers are less involved in needs analysis than expected. Empirical data also demonstrate that the majority of employees are aware of the importance of training needs analysis and the importance of clearly defined training objectives.

**Keywords:** training needs analysis, training planning, training objectives, public administration, training evaluation.

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## 1. Introduction

After the fall of the Berlin wall, public administrations (PA) in Central and Eastern European countries had to adapt to an enormous number of changes in a relatively short time. Their civil servants are still facing a constantly changing regulatory framework that needs implementation and enforcement, as well as new demands from the growing private sector and the citizens. The reform of PA was driven first by the change in the political regime (Dorobăț *et al.*, 2012), and was focused on changing the relationship between PA and society, with PA becoming a service for the citizens instead of a service for the government, and was later driven by the European Union accession requirements.

Since Slovenia became independent in 1991, its governments have made vigorous efforts to restructure the centrally planned economy into a market economy. This process was to a great extent influenced by a quick and dynamic development of the contemporary social system, which requires both an appropriate adjustment and an elaboration of the administrative system. Modernization of PA has been an official priority for the Government of Slovenia since the reform processes started in 1997. The reform was also a prerequisite for EU accession and was therefore focused on harmonizing and modernizing the national legislation and regulations, as well as the introduction of new concepts and policies and initiating new organizational and managerial skills and techniques within public institutions. One of the most important current issues in Slovenia's PA is the effectiveness of public sector employees. In 2003 the new Civil Servants Act – CSA (Official Gazette of the Republic of Slovenia, no. 56/02) was passed. The intent of CSA is to regulate the administration system in a modern way and to integrate all provisions that will ensure the professionalism of civil servants. CSA emphasises that the qualifications of trained civil servants are means for ensuring a professional administration. Training during an employment relationship is regulated as a right and duty of civil servants and enforced by a general program, established by the government and is formed on the basis of expert analyses of training needs. Furthermore, the Act also requires the monitoring of training programs and the preparation of yearly reports about the results. As a consequence the evaluation of results regarding the training of civil servants has become compulsory. The Act also provides for the evaluation of working and professional qualities of civil servants which, amongst other things, are also based on the evaluation of the professional qualification of those employed, including the use of skills obtained during training in their working positions. The promotion to a higher title and position is also regulated by the Act, with the successful completion of training and an evaluation of the achieved qualifications determined in advance. According to the CSA, the establishment of a system for continuous development of civil servants' professional skills and expertise is a key element of an efficient HRM policy and in the development of the administration, and represents an example of a systemic approach to recruitment and career management (Škraba *et al.*, 2011).

However, the issues regarding the efficiency of PA are not a specific Central and Eastern European issue. Much of the economic debate in the world at the beginning of the 21<sup>st</sup> century is focused on the (in)efficiency of PA in various countries and the required reforms (Rončević and Makarovič, 2010). Proper training is necessary for professional development of the civil servants and development of their professional competences, autonomy and political neutrality.

This paper presents the results of a continued research first presented in Vuković *et al.*, (2008). While the initial part of the research has focused on the study of CSA provisions referring to professional training and development of civil servants, the focus of this paper is the study of systems for training needs assessment.

## **2. Training needs analysis – theoretical framework**

Armstrong (2009, p. 4) states that 'human resources management (HRM) is a strategic and coherent approach to the management of an organization's most valued assets: the people working there, who individually and collectively contribute to the achievement of its objectives'. Many studies have demonstrated the effect of HRM on the performance of an organization (Peña Garcia Pardo and del Valle Fernández Moreno, 2009). One of the definitions widely used in the studies of training was introduced by Armstrong (2009, p. 675): 'training is the systematic modification of behavior through learning, which occurs as a result of education, instruction, development and planned experience'. Armstrong (2009, p. 685) also points out that effective training can minimize learning costs, improve individual, team and corporate performance in terms of output, quality, speed and overall productivity, and improve operational flexibility by multiskilling.

Training should be systematic and consistent. If not, it becomes devalued and little used, especially if the standards demanded are not being met in everyday activities. Go *et al.* state that some basic concepts should always be used in organizational training practice (1996, in Cassidy, 2001). The majority of well prepared training plans are designed according to the model of systematic training, described by Armstrong (2009, p. 677) as a training which is designed to meet a set of defined needs. The essence of this particular system is the logical sequence of: (1) assessment – establishing what is needed, by whom, when and where, so that the training objectives can be determined; (2) activity – selecting the training and development methods and learning principles to be employed; (3) evaluation – measuring how well the activity met the training and development objectives (Stone, 2008, p. 223).

The Business Dictionary (2009) defines training needs analysis (TNA) as an assessment of the training requirements of a target group in terms of number of trainees, their educational and professional background, their present level of competence, and the desired behavior or skill level acquired at the completion of training. While the steps in any given system may not always be the same, they provide boundaries and guidance so that the desired outcome is repeatedly and consistently achieved with little error.

TNA is concerned with defining the performance gap that has to be filled by training, i.e. the difference between what employees know and can do and what they

should know and be able to do (Armstrong, 2009, pp. 690-692). TNA should answer the questions on who must be trained, what they must be trained in, and when and where the training will take place. The authors (Goldstein, 1997; Goldstein and Ford, 2002, pp. 22-23) state that there are three levels of analysis for determining the needs that training can fulfill: organizational analysis focuses on identifying where in the organization training is needed; operations analysis (knowledge, skills, and abilities – KSA analysis) attempts to identify the content of training – what an employee must do in order to perform competently (job analysis, task analysis, and knowledge and skill-gap analysis); individual analysis determines how well each employee is performing the tasks that make up their job.

After the identification of training needs, the next step is the identification of training priorities and objectives. The Business Dictionary (2009) defines training objectives as the measurable, intended end result of a training program, expressed in terms of the desired behavior or skill level, conditions under which it has to occur, and the benchmark against which it will be measured. Training objectives must be specific, because if they are not, evaluating whether the training has been successful will prove to be difficult. The determination of training needs and the translation of these needs into training objectives provide directions and purposes for the training effort (Arthur *et al.*, 2003).

After the training needs and objectives have been identified, the next step is to design the environment to achieve the objectives. This involves a consideration of both content and process, including selecting the training and development methods and learning principles that are to be employed.

Once the planning phase of a training program is complete, it is time to implement the program. This phase is the process of putting a training program into operation and involves different supportive activities, e.g., publicity, organization, transportation.

Training as an instrument for change and improvement often does not provide expected results (Saner and Yiu, 2007, pp. 312-313). Many times, investments in training are not successful and intended objectives are not met, leading to disappointments and unhelpful attribution of blame.

In order to judge whether training has been successful or not, evaluation of the results is necessary. Evaluation is a process used to determine the relevance, effectiveness, and impact of activities in light of their objectives. Evaluation enables us to empirically demonstrate whether the training was effective (Bramley, 2003, p. XVI; Goldstein and Ford, 2002, pp. 23-24; Kirkpatrick and Kirkpatrick, 2006, p. 16).

Berge (2008) argues that training sometimes lacks the systematic approach consisting of planning, TNA, and evaluation, or is done for the wrong reasons. He additionally points out that in almost all of the cases the lack of performance in employees is only partially caused by the need for training. Those conclusions give elaborate TNA additional weight.

### 3. Research questions and assumptions

A key element in the application of an efficient HRM policy and development in the administration seems to be the establishment of a system for continuous development of civil servants' professional skills and expertise. Randma (2002, p. 198) states that 'training is expensive and therefore it is essential for public managers to make sure that the training needs are carefully assessed' and points out that in the wake of austerity, all organizational activities, including training, should be evaluated and financed according to their relative effectiveness in comparison to other programs.

One of the provisions of the CSA introduces regular and systematic TNA, with the goal of improving training efficiency and results. According to the CSA, all decisions regarding training have to be based on expert analysis. It requires state bodies to annually review organizational, occupational, and individual needs for training. A systematic and continuing review of current and foreseeable future organizational training needs should provide a realistic basis upon which to plan, budget, direct, and evaluate an effective training program. The training needs of individual employees should be assessed within the context of the organization's strategic goals to ensure that the employees gain suitable competences.

As it was described, TNA is becoming a compulsory part of Slovene civil servants' training. While managers in the PA may generally agree that TNA is necessary, it is harder to create agreement on how to identify and assess the training needs. Identifying training needs for the employees requires careful scrutiny of mission objectives, personnel, performance, resources, costs, and other factors. In practice many questions have turned up, e.g. how can they define the most important skills, knowledge and behavior? What is the gap between desired and typical or actual performance? Whose responsibility is the TNA? Is it the responsibility of individual employees, of the managers or of the personnel departments? Who benefits the most from TNA? Which TNA techniques and methods are the most suitable?

These issues have motivated us to research the current practices in training within the PA, in the wake of the reforms. The basic purpose of the research, which was the first of its kind in the Slovene administration, was to assess and evaluate the characteristics and components of systematic training based on studying the theory of domestic and foreign experts. Special emphasis was put on the role of evaluation in correlation to the success of training. Our previous research (Vukovič *et al.*, 2008) on the issues in introducing training evaluation in the training of civil servants in public administration indicated that inconsistent training needs analysis is an important issue, thus we have decided to focus our further research on the TNA. This paper is a report on the research on civil servants' perceptions of TNA and it focuses on the following research questions:

1. What are the differences in the attitude of managers and clerks among the civil servants towards the significance of TNA?
2. Does a connection exist between TNA and other components of systematic training, e.g. training planning, implementation, and evaluation?

3. What is the influence of TNA on the effectiveness of training?
4. Does knowing the training objectives in advance have an influence on training effectiveness?

One of our research objectives was to recognize and explain the differences between managers and clerks in their comprehension of TNA. We think that a better understanding of the differences between the groups of civil servants should have important consequences for the application of TNA within Slovenia's PA, and would allow the design of a reliable and effective TNA model that would be tailored to its needs.

In this section we present the background of the research questions and the assumptions that our research is based on.

The CSA demands that all training programs and the needs for supplementary qualifications of civil servants are to be defined by the heads of the administrative bodies; therefore the most of decisions on training and HR development in PA are based on the managers' views of training needs and priorities. Additionally, the CSA states that the managers must supervise the work and the career development of individual civil servants, and conduct at least yearly individual interviews with employees. Interviews must also involve training issues, e.g. training achievements of individuals, foreseen training needs etc. Local managers' autonomy in training planning can, in theory, improve the correlation between training needs and training, but it is likely to lead to differences in performance and training target between Administrative Units (AUs), unless the organizational and individual performance goals are not clearly defined and standardized.

Rummler (1987, p. 218) points out: 'Determining training needs is not just a training process issue. It is also a training management issue, reflecting the mission, philosophy, and strategy of the training function.' Poor understanding of the role of the training function and treatment of training as an isolated process can lead to many problems. In order to examine the factors influencing the attitude towards TNA we have therefore postulated the first research question: *Question 1. What is the correlation between respondents' demographics characteristics and their attitude towards TNA?*

Training is a cyclic process that begins with needs identification and, after a number of steps, ends with evaluation of training activities and training effectiveness. A change or deficiency in any step of the training process affects the whole system, and therefore it is important to have a clear understanding of all phases and steps of the training process.

The influence of basic components of the training system on training effectiveness and the relationships between the components have to be examined in the process of formation of an effective training system.

According to Bee and Bee (2003, p. 285) the connection between learning needs analysis and evaluation is very important and it should be established during the TNA phase. That will help ensure that learning in the organization is focused in the right areas and on the right people. It also helps to assess whether the training improved the performance. Easterby-Smith (1995, pp. 15-19) and Bramley (2003, p. XVI) stated that

the function of evaluation is to evaluate the continuous flow of recurring information, and that is the starting point for repeated assessment and evaluation of THA, for the next level of an individual's professional development. Also, the identification of training needs has to include the criteria according to which the variations in job performance and effectiveness have to be evaluated (Bramley, 1996, p. 52).

The second research question is thus concerned with the correlation between TNA and other phases of training: *Question 2. What is the correlation between TNA and training planning, implementation, and evaluation?*

The third question concerns the correlation between TNA and training effectiveness according to Bramley's definition (1996, p. 52). According to this definition, the measures of training effectiveness include the evaluation of specific achievements of training and its cost effectiveness, in addition to the training achieving its specified goals.

The purpose of TNA is to define what the employees should learn in order to do their job better. TNA is partly concerned with defining the gap between what is and what should be happening. All further training phases depend on the outputs from TNA. If this phase is not carefully done, the training program as a whole will have little chance of achieving what it is intended to do and training effectiveness will suffer.

Unfortunately, evidence suggests that TNA is often done badly or not at all (Stone, 2008, p. 633). According to Wexley and Latham (1991, p. 147) training programs are too often accepted simply because the program was well advertised and marketed, or because other organizations are using them. We tried to capture the essence of these issues in the third research question: *Question 3. What is the correlation between TNA and training effectiveness?* The final question that we were interested in was the relationship between the knowledge of training objectives and training effectiveness: *Question 4. What is the correlation between knowledge of training objectives and training effectiveness?* Before we can determine what will be expected of the training program it is necessary to find out what the needs are. Once the training needs are determined, the next step is to consider how they will be satisfied. To do this, the goals and objectives for the training program should be defined. Goals are fairly broad general statements of intent derived from the identified training needs. The goal theory is founded on the premise that an individual's conscious goals or intentions regulate her/his behavior. Research indicates that once an individual accepts a goal, difficult but attainable goals result in higher levels of performance (Casio, 2006). These findings have an important implication for motivating trainees, i.e. the goals of the training should be clear at the outset.

Training objectives are tactical applications of the strategic training goals and are defined as the specific knowledge, skills, or attitudes that the trainees are to gain as a result of the training activities. Gropper and Ross (1987) emphasize that objectives must clearly and explicitly identify the outcomes a training program is expected to produce. Those objectives can be determined by several techniques: job analysis, critical incidents, performance appraisal, and performance evaluation.

Clearly defined objectives provide guidelines for design of instructions and the basis for measuring the effectiveness of training in terms of knowledge, skills, and

attitudes expected of the trainees, the minimum acceptable performance standards and the conditions under which the performance is measured. They link training needs and the training which is delivered so that training can be validated, and provide a first point of reference for any investigation or review of training (Buckley and Caple, 2000, p. 122). In addition, the objectives clarify the goals of instructors and trainees. An individual should accept the given learning objectives and should agree with them, which again puts TNA in the forefront.

#### **4. Methodology of the study**

##### ***4.1. Research population and sample***

The identification of the study population was crucial for the definition of our research questions. As the topic of our research was rather extensive we have limited the research to a part of the public administration – the Administrative Units (AUs).

AUs are the main form of territorial organization of Slovenia's PA, and were established in 1995 (Administration Act, Official Gazette of the Republic of Slovenia no. 67/1994). The main responsibility of AUs is to carry out all administrative tasks and support the execution of duties of PA that are to be organized and performed territorially. Civil servants at AUs make decisions at the first level of administrative procedures and perform other tasks of state competence.

We have focused our research on the AUs because their network covers the entire country, and the organizational structure, scope of responsibilities, working procedures and management of AUs varies very little from one AU to another, making the AUs comparable to one another.

At the time of research there were 58 AUs in Slovenia. Nine (15.5%) of them were identified as representative AUs according to the variations in size and organizational structure of AUs and selected for the study. Selected AUs were representative of the entire population in size, number of employees and geographic distribution. 525 employees (15.8% of employees in all AUs) were included in the research.

The research sample was divided in two groups. The first group consisted of civil servants in managerial positions (heads of internal organizational units) while the second group included only the non-managers (clerks). The sample of managers included 54 respondents (19.2% of all managers in all AUs) and the sample of clerks included 471 respondents (17.2% of all clerk employees in all the AUs); the samples were large enough to effectively represent the two groups.

##### ***4.2. Development of the instrument and data sources***

Our research instrument for the collection of data was a questionnaire that included closed and open-ended questions. The questionnaire was designed according to the Instructional System Development (ISD) model and the findings from related scientific literature (Cascio, 2006; Goldstein and Ford, 2002) and the CSA provisions regarding TNA. The questionnaire contained 26 questions.



Questions were divided into four categories that included five questions each, and gauged the respondents' agreement with the statements regarding the current training practice in AUs. The subjects were asked to assess the current practice of training in relation to an ideal situation using a five-point Likert scale: (1) Strongly Disagree, (2) Disagree, (3) No Opinion, (4) Agree, and (5) Strongly Agree. One open-ended question was included in the questionnaire in order to supplement the structured data. Demographic questions were also included (position, gender, age, level of education, years of experience in public administration) to aid in statistical comparisons and groups analyses, however the questionnaires were anonymous in order to gather more accurate information.

#### ***4.3. Data collection procedures***

Questionnaires were delivered personally to the heads of AUs or their representatives. Within two weeks, 432 of the 525 surveys were received giving a return rate of 82.9% (54 managers and 378 clerks).

#### ***4.4. Statistical analysis of the data***

Six of the questionnaires were incomplete and thus invalid. 426 completed questionnaires representing 9 AUs were therefore used for data analysis. For analysis of the acquired data we have used Statistical Package for Social Sciences (SPSS) software application and several statistical methods. Descriptive statistics on the demographic variables were computed. Differences between the demographic groups were determined using the ANOVA and the t-tests. We have tested for the potential relationships between the responses on each question with the Spearman coefficients.

### **5. Results and findings**

#### ***5.1. Respondent profile and analysis by respondents' position***

The main goal of this section is to describe the demographics of participants and their position within public administration. Of the 426 respondents who filled in this question, 53 (12.4%) occupied managerial position (heads of department and other internal organizational units), while 373 civil servants occupied clerk positions (87.6%).

Based on the comparison between the structure of research sample and official data on AU employees (obtained from Directorate for Management and Personnel, Ministry of Public Administration of the Republic of Slovenia) we concluded that the research sample was statistically representative.

To better understand the differences between the characteristics of the respondents, we have further conducted an analysis on their job positions by generating cross-tabulations with other demographic variables – gender, age, education and work experience.

Table 1: Position with gen

Gender/Position	Female	Male
Managers	31	22
Clerks	298	75

Table 2: Position with age

Age/Position	<30 years	30-39 years	40-49 years	50-60 years	>60 years
Managers	2	12	23	13	3
Clerks	71	149	102	50	1

Table 3: Position with education

Educational level/ Position	Doctorate	Master's degree	B.A. Degree	College degree	Secondary school degree	Less than secondary school degree
Managers	0	5	28	20	0	0
Clerks	0	6	61	154	146	6

Table 4: Position with experience within public administration

Work experience/ Position	<5 years	5-9 years	10-14 years	15-20 years	>20 years
Managers	0	11	19	7	16
Clerks	23	111	42	48	149

## 5.2. Analysis of TNA perceptions

Eight questions concerned the respondents' perception of TNA. These questions were defined according to the results of the analysis of previous research. One-way analysis of variance and t-test were used to clarify the differences in the attitudes towards TNA in the various demographic groups (Table 5).

Table 5: Correlation between demographic variables and opinions on TNA

Variables (statements)	Position	Gender	Age	Education	Experience
Training planning increases training effectiveness.	-.192*	-.027	.142*	-.087	.091
Training should be based on elaborated TNA.	.137*	-.174*	.083	-.216*	.048
Training needs are defined according to job requirements.	-.063	-.088	-.039	-.034	-.077
Accurately assessed training needs are a precondition for effective training.	-.029	-.032	-.069	-.117	-.099
Employees are actively involved in TNA.	-.144*	.002	-.154*	.000	-.042
Training needs are proactively determined.	-.182*	-.044	-.021	-.089	-.022
Training should be based on training objectives.	.158*	.139*	-.157*	.145*	-.139*
Consistent TNA is performed.	-.171*	-.107	.002	-.089	-.092

Note: \*p < .05

Source: Authors' calculations

The opinions of managers and clerks varied in 64.7% of the cases. The job position displayed a low but statistically significant negative correlation towards agreement with the following statements: 'Training planning increases training effectiveness', 'Employees are actively involved in TNA', 'Training needs are proactively determined',

and ‘Consistent TNA is performed’. We can conclude that managers are more likely to agree that planning improves training effectiveness and that continuous and consistent TNA already exists, that training needs incorporate future business demands, and that employees are actively involved in identification of training needs.

The job position shows a low, but statistically significant positive correlation to ‘Training should be based on elaborated TNA’, and ‘Training should be based on training objectives’. Clerks are more likely to agree that training planning should be derived from accurate training needs. Clerks are also more inclined to think that training objectives should be the starting point for learning and training.

Job position has no correlation with the statements ‘Training needs are defined according to job requirements’ and ‘Accurately analyzed training needs are a precondition for effective training’.

The variable for the statement ‘Training should be based on training objectives’ has the strongest statistically significant correlation with the demographic characteristics. This statement has the highest agreement among the managers, women, junior civil servants and highly educated civil servants.

As significant differences ( $p < .05$ ) were found between managers and clerks, we have decided to further examine the attitudes of managers and clerks about TNA. Means of both groups were analysed to compare their opinions. Table 6 displays eight questions along with the question mean, its standard deviation, and the number of participants by job position.

**Table 6.** Managers’ and clerks’ opinions on TNA – results of t-Test of group means

Variables (statements)	Group	N	Mean <sup>a</sup>	SD <sup>b</sup>	t	Sig (2-tailed)
Training planning increases training effectiveness.	M <sup>c</sup>	52	3.82	.72	2.852	.009
	CM <sup>d</sup>	366	3.43	1.14		
Training should be based on elaborated TNA.	M	52	3.99	.42	1.289	.192
	C	354	3.92	.75		
Training needs are defined according to job requirements.	M	52	3.29	.73	-0.899	.131
	C	245	3.71	.64		
Accurately assessed training needs are a precondition for effective training.	M	52	3.45	.66	4.102	.177
	C	345	3.581	.72		
Employees are actively involved in TNA.	M	52	3.49	1.15	-1.540	.004
	C	353	2.79	1.31		
Training needs are proactively determined.	M	51	2.65	.16	3.280	.003
	C	359	1.93	.88		
Training should be based on training objectives.	M	53	3.89	.92	7.109	.000
	C	362	3.44	.89		
Consistent TNA is performed.	M	51	2.36	.44	1.159	.005
	C	359	1.52	.52		
Note: <sup>a</sup> Mean – 1 – Strongly Disagree, 5 – Strongly Agree <sup>b</sup> SD – Standard deviation <sup>c</sup> M – managers. <sup>d</sup> C – clerks. p < .05						

Source: Authors’ calculations

The examination of the means obtained for the variables concerning TNA issues indicate that Slovene civil servants have a positive attitude towards the value of training and the role of TNA in assurance of its effectiveness, although the opinions of both groups differed moderately. Item means (M) ranged from 1.52 (clerks – ‘Consistent TNA is performed’) to 3.99 (managers – ‘Training should be based on elaborated TNA’). Standard deviations for items ranged from .16 (managers – ‘Training needs are proactively determined’) to 1.31 (clerks – ‘Employees are actively involved in TNA’).

For the purposes of this study, the strength of agreement indicated by each level of response was categorized as low if less than 2.25; moderate if between 2.26 and 3.75; and high if more than 3.76. Low agreement was found with clerk respondent on two items (‘Training needs are proactively determined’, and ‘Consistent TNA is performed’). Clerks decidedly agreed that training should be based on elaborated TNA (M = 3.88), and in five cases clerks showed moderate agreement with the stated items (‘Training planning increases training effectiveness’, ‘Training needs are defined according to job requirements’, ‘Accurately assessed training needs are a precondition for effective training’, ‘Employees are actively involved in TNA’, and ‘Training should be based on training objectives’).

Managers decidedly agreed on three items (‘Training planning increases training effectiveness’, ‘Training should be based on elaborated TNA’ and ‘Training should be based on training objectives’), while in five cases their agreement is moderate (‘Training needs are defined according to job requirements’, ‘Accurately assessed training needs are a precondition for effective training’, ‘Employees are actively involved in TNA’, ‘Training needs are proactively determined’, and ‘Consistent TNA is performed’).

T-test was used to determine if significant differences exist between the two groups. Significant differences ( $p < .05$ ) between managers and clerks were found on five occasions. Managers agreed (M = 3.82) more strongly than clerks (M = 3.43) that ‘Training planning increases training effectiveness’ ( $p = .009$ ). Managers rated the item ‘Training needs are proactively determined’ significantly higher (M = 2.65) than clerk respondents (M = 1.93) who more often tended to disagree with the statements ( $p = .003$ ). For the item ‘Employees are actively involved in TNA’ the average ratings by managers (M = 3.49;  $p = .004$ ) was significantly greater than those of clerks (M = 2.79). Similarly, for the item ‘Consistent TNA is performed’ the average rating by managers (M = 2.36;  $p = .005$ ) was greater than that of clerks (M = 1.52). Managers also rated the statement ‘Training should be based on training objectives’ significantly higher (M = 3.89;  $p = .000$ ) than clerks (M = 3.44).

Clerk respondents provided a higher rating (M = 3.58) to the statement ‘Accurately assessed training needs are a precondition for effective training’ than managers (M = 3.45). Similarly, for the item ‘Training needs are defined according to job requirements’ the average rating by clerks (M = 3.71) was greater than that of managers (M = 3.29). For the item ‘Training should be based on elaborated TNA’ the item-level group means were similar (M = 3.99 for managers; M = 3.92 for clerks).

### 5.3. Correlations between training dimensions

A correlation matrix was also constructed in order to show the interrelationships among seven dimensions: TNA, planning, training objectives, implementation, training results, evaluation, and training effectiveness. We calculated the Pearson's coefficient correlation for the variables (Table 7).

Table 7: Correlation matrix for the seven dimensions of training

Variables	1	2	3	4	5	6	7
1. TNA	1.00						
2. Planning	.72**	1.00					
3. Training Objectives	.78**	.57**	1.00				
4. Implementation	.77**	.86**	.37**	1.00			
5. Evaluation	.67**	.51**	.28**	.53**	.55**	1.00	
6. Training Effectiveness	.43**	.65**	.79**	.67**	.62**	.56**	1.00
Note. *p < .05 ** p < .01							

Source: Authors' calculations

Table 7 indicated that two correlations showed little correlation (correlation coefficient between .00 and .30), three correlations were minor (correlation coefficient between .30 and .50), nine correlations were moderate (correlation coefficient between .50 and .70), and five correlations were strong (correlation coefficient higher than .70). Categories of correlation were based on Hinkle, Wiersma and Jurs (1988, in Poston, 1997).

The opinions on the components of systematic training cycle were found to be correlated as well (significant at the .05 level). The correlations between TNA and planning ( $r = .72$ ), TNA and training objectives ( $r = .78$ ), TNA and implementation ( $r = .77$ ), and TNA and evaluation ( $r = .67$ ) were confirmed.

High correlations were also calculated between training objectives and training effectiveness ( $r = .79$ ), and planning and implementation ( $r = .86$ ). The last correlation is the highest computed correlation. A significant positive relationship was found also between planning and training effectiveness ( $r = .65$ ), planning and training objectives ( $r = .57$ ), and planning and evaluation ( $r = .51$ ). In addition, a correlation of .43 was found between TNA and training effectiveness, and a correlation of .67 between implementation and training effectiveness. A correlation of .56 was found between evaluation and training effectiveness.

According to the discovered correlations between TNA, planning, implementation, evaluation and training effectiveness, we can conclude that the Slovenian civil servants are mostly aware of the importance of a systematic approach to training, which resonates with the theory and the findings of previous studies. For example, Scriven (1991, p. 169) suggested that the complete evaluation of a training program should include the following: preformative evaluation, formative or inner evaluation, and summative or outer evaluation. During the planning process, the preformative evaluation systematically evaluates the needs of individuals and their organization. The objectives of training and the training strategies are defined and clarified in this phase. The formative or inner evaluation is to be performed during the course of the

training program as it provides the feedback on the execution of training and therefore enables the organization to perform adjustments or modifications. Summative or outer evaluation is the last phase of the evaluation and it allows the trainees and their managers to evaluate the final results of training.

Furthermore, we have analyzed the relationship between systematic training components – TNA, planning, and evaluation of training. In addition, we also searched for links between these components, training organization, and the training objectives. Review of correlation coefficients confirms that there are relatively strong links between the components. Within the internal structure there are particularly prominent links:

- TNA with the organization of training ( $r = .77^{**}$ ), planning of training ( $r = .71^{**}$ ), and evaluation of training ( $r = .47^{**}$ );
- Planning training with the organization of training ( $r = .85^{**}$ ), and evaluation of training ( $r = .47^{**}$ ); and
- Training evaluation with the organization of training ( $r = .67^{**}$ ).

The correlation between training objectives and the organization of training, TNA, training planning, and evaluation is slightly less prominent. The internal structure of links demonstrates that training objectives are in a positive correlation relation with the planning of training ( $r = .57^{**}$ ), the organization of training activities ( $r = .37^{**}$ ), TNA ( $r = .29^{**}$ ), and training evaluation ( $r = .28^{**}$ ).

## **6. Conclusions and recommendations**

The goal of our study was to examine the attitudes and opinions of managers and clerks in AUs regarding the training planning and TNA issues. According to the results of our research, we can make the following conclusions and recommendations:

- The attitude of civil servants' towards training depends on their demographic characteristics. Similarly to previous research and indicated by the theory, significant differences were found particularly between the managers and their subordinates, i.e. clerks.
- Both clerks and their managers agree that TNA has a positive influence on the effectiveness of training.
- After analyzing the influence of comprehensive TNA on the quality of training results, especially in the views of clerks there was a moderate correlation, from which we conclude that the civil servants see TNA and training objectives as motivation for training.
- Managers largely see TNA as a tool that can improve the efficiency of training, making it both resource-effective (resources include direct financial costs, time, and energy) and effective in relation to its goals.
- The participants agree that TNA, training planning and training evaluation have an important influence on the effectiveness of training. Significant correlations exist between TNA, planning, execution, and training evaluation; however the correlation between the effectiveness of training and TNA are lower than expected. This may be due to the current lack of systematic and consistent TNA in the AUs.

- Due to the positive replies to our research questions, our final conclusion is that TNA significantly influences training effectiveness in the AUs. Although the opinions about TNA are largely positive, AUs currently do not perform a systematic and continuous TNA. The analysis of training needs is formally the responsibility of individual managers in the AUs, it is left to their self-initiative and therefore subjective.

### **6.1. Recommendations**

Despite the positive attitude of civil servants towards training and their awareness of the importance of TNA, many areas and aspects of identification of the training needs and setting training objectives still need more work. The results of our research are directly relevant for the AUs and, in order to provide a more comprehensive and accurate overview of the training practice in the PA, we propose additional surveys in other branches of the PA, especially in large branches such as the Police and the armed forces. Although the legal framework of the training process is the same in all branches of the PA, significant differences may exist, also due to the lack of a systemic approach to TNA within the CSA.

The difference between the current practice and the recognized good practices is mostly a consequence of inadequate 'training on training', i.e. most managers are not aware of the principles of systematic training. Thus we recommend systematic training of AU managers, HR managers and training operatives, in the formal approach, to all components of training. In practice, different methodology and techniques for TNA should be used, e.g. job analysis, critical incidents, performance appraisal, and performance evaluation. Employees should be included in the TNA and identification of the training needs should be performed continuously, not only once a year. Training needs should be defined according to the future business needs and not just as a quick fix for current performance issues.

Implementation of a comprehensive approach to constant and systematic training in any segment of the public administration requires an interdisciplinary approach. The issue of training and HR development in the PA is associated with the theory of public administration as well as with the vast area of behavioural sciences such as psychology, sociology, social psychology and anthropology. Additionally, knowledge and skills from the field of evaluation are needed for a comprehensive training approach, including the knowledge of various evaluation models, methods and techniques, statistical methods etc. Therefore, we can say with a high degree of confidence that the greatest hindrance to the introduction of systematic training in administration will be the inadequate qualifications and the lack of experience of those who are responsible for training and development. This refers especially to the formation and introduction of supportive mechanisms such as analysing training needs and evaluation of training effectiveness.

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