FIRST THINGS FIRST: FOCUSING ON THE OBVIOUS FOR BETTER MANAGEMENT AND LEADERSHIP DEVELOPMENT

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Abstract

Transfer of learning is a necessary step between learning and performance. This article is based upon a quantitative survey, studying the main transfer inhibiting and enhancing conditions from a public management program in the Belgian public sector. The statistical results demonstrate that individual and program characteristics determine primarily the transfer of what has been learned. This allows both researchers and practitioners to focus on the most obvious independent variables in order to increase the effectiveness of management and leadership development, i.e. the link between the program and the general HRM-processes in the organization, the opportunities provided to the participant and the communication towards the participant and his/her colleagues. Apart from that, the impact of the selection procedure for enrolment has a determining role on the program's success.

Keywords: management and leadership development, training effectiveness, transfer, human resource development.

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1. Introduction

In the past, the impact of educational programs has been questioned regularly (Broad and Newstrom, 1992; Awoniyi, Griego and Morgen, 2002). Yet, educational investments, in both the public and the private sector, continue to be considered as important human resource development strategies to increase individual and organizational performance. The same goes for management programs and leadership training, where it is assumed that they affect management and leadership, and thus performance (Wright and Pandey, 2010; Buelens *et al.*, 2006). The question is whether those programs actually 'work', because there needs to be a translation from learning to practice before performance can be affected positively. And if so, can we increase that impact by focusing on the dependent variables? That is what this article is about, and its added value is on two fronts. First, most transfer studies have been limited to short term training programs in the private sector (Gilpin-Jackson and Bushe, 2007; Broucker, 2010). The focus of this article is on long term management programs in the public sector and their main inhibiting and enhancing conditions, based on quantitative results of a survey taken from Belgian civil servants. Second, this article wants to tackle the question of what factors have to be dealt with primarily in order to enhance transfer and thus effectiveness of management programs in the public sector. This is necessary, since literature suggests that the number of transfer stimulating and inhibiting factors remains large. Even though there is a consensus about the main independent variables, i.e. the individual, the transfer climate and the training program (Broad and Newstrom, 1992; Holton, 1996; Burke and Hutchins, 2007), the list of sub-factors of those main variables is extremely large, which incorporates the risk of theoretical vagueness and the loss of a clear research focus. Burke and Hutchins (2007) in their review came to a list of 17 factors which have a strong or moderate relationship with transfer, 5 factors with mixed support in the research debate for their influence on transfer, 8 factors which have been examined minimally, and 18 factors which need more research. Broucker (2014) also claims that the complexity of the transfer processes and the number of its influencing factors may even be higher.

2. Transfer of training: The concept

Transfer is often defined as 'the effective and continuing application, by trainees to their jobs, of the knowledge and skills gained in the training, both on and off the job' (Broad and Newstrom, 1992). Broucker (2010) has argued that this definition doesn't make a distinction between different types of educational programs and doesn't make clear what 'application' actually means. Therefore he suggests another definition upon which this article will be based: 'transfer is when acquired knowledge and skills add value that improves job performance' (Broucker, 2010). Two elements in this definition are important: (1) time, since transfer is future-oriented and continuing by nature; (2) transfer must be considered as an elementary and conditional step between the learning process and job performance. Several theoretical models have

emphasized this sequence of events (Foxon, 1994; Thayer and Teachout, 1995; Kontoghiorghes, 2004; Pidd, 2004; Broucker, 2014).

Transfer studies and conceptual models have, throughout the years, identified and emphasized the importance of three variables in this process (Broucker, 2010): individual characteristics (Quiñones and Holladay, 2003; Pidd, 2002; Lim and Johnson, 2002; Ruona, Leimbach, Holton and Bates, 2002), training characteristics (Paek and Hawley, 2006; Ford, Quinoñes, Sego and Sorra, 1992; Broad and Newstrom, 1992) and transfer climate characteristics (Broad and Newstrom, 1992; Awoniyi, Griego and Morgan, 2002; van der Klink, Gielen and Nauta, 2001; Clarke, 2002; Ford *et al*., 1992; Gumuseli and Ergin, 2002; Quiñones, 1995; Olivero, Bane and Kopelman, 1997). Those variables stand for (1) the individual competencies and motivation to apply what has been learned, (2) the similarity between program and work environment, and (3) the organizational climate of support for the transfer process (i.e. the transfer climate).

3. Methods

3.1. Data collection

The data was collected from a survey taken from 300 Belgian federal civil servants in 2008, graduated from an educational program in public management (the 'Public Management Program', hereafter: PUMP) in the period 2001-2007. The entrance to the program was yearly limited to 50 federal civil servants. The main objective of PUMP, commissioned by the federal government, was to contribute to the reform of the federal administration by giving civil servants the necessary knowledge, competencies, skills and attitudes to support the modernization process and therefore preparing themselves for a future managerial or leadership role. Simultaneously, PUMP wanted to create an inter- and intradepartmental network of civil servants, enhancing a reform culture and a new way of managerialism (Broucker, 2011). The intensive one-year program contains different sections such as, among others, public management and leadership courses, exercises aiming at knowledge integration, organizational consultancy tasks and an external internship.

The survey-instrument used was based upon the *Learning Transfer System Inventory*, originally created and validated in the United States, measuring the 'learning transfer system', which are all the transfer influencing factors within the individual, the training program and the organization (Donovan, Hannigan and Deirdre, 2001). It measures 16 factors (see table below) (Holton and Bates, 1998; Holton, Bates and Ruona, 2000), has been translated and validated in Thai (Yamnill and McLean, 2001), Chinese (Chen, 2003), Arab (Bates and Khasawneh, 2005) and French (Devos *et al*., 2006), and has proven cross-organizational validity (Holton, Chen and Naquin, 2003).

Table 1: LTSI scale definitions

Trainee Characteristics Scales
• *Learner Readiness*: the extent to which individuals are prepared to enter and participate in a training program. • *Performance Self-Efficacy*: an individual's general belief that he is able to change his performance when he wants to.
Motivation Scales
• *Motivation to Transfer Learning*: the direction, intensity and persistence of effort towards utilizing in a work setting skills and knowledge learned in training. • *Transfer Effort—Performance Expectations*: the expectation that effort devoted to transfer will lead to changes in job performance. • *Performance—Outcomes Expectations*: the expectation that changes in job performance will lead to outcomes valued by the individual.
Work Environment Scales
• *Feedback/Performance Coaching*: formal and informal indicators from an organization about an individual's job performance. • *Supervisor/Manager Support*: the extent to which managers support and reinforce the use of learning on-the-job. • *Supervisor/Manager Sanctions*: the extent to which individuals perceive negative responses from managers when applying skills learned in training. • *Peer Support*: the extent to which peers reinforce and support use of learning on-the-job. • *Resistance/openness to Change*: the extent to which prevailing group norms are perceived by individuals to resist or discourage the use of skills and knowledge acquired in training. • *Personal Outcomes-Positive*: the degree to which applying training on the job leads to outcomes that are positive for the individual. • *Personal Outcomes-Negative*: the extent to which individuals believe that applying skills and knowledge learned in training will lead to outcomes that are negative.
Ability Scales
• *Opportunity to Use Learning*: the extent to which trainees are provided with or obtain resources and tasks on the job enabling them to use the skills taught in training. • *Personal Capacity for Transfer*: the extent to which individuals have the time, energy and mental space in their work lives to make changes required to transfer learning to the job. • *Perceived Content Validity*: the extent to which the trainees judge the training content to accurately reflect job requirements. • *Transfer Design*: the extent to which training has been designed to give trainees the ability to transfer learning to job application and the training instructions match the job requirements.

Different steps were taken before launching the survey. First, it was qualitatively tested, using interviews taken from graduates from the Justice Department and from graduates from another program in public management (Van de Kerckhove, 2007) to see whether the factors were relevant for and applicable to the Belgian public sector. Second, the survey was translated by forward translation (Chen, 2003) and pre-tested by interviews taken from a small, yet diverse group of graduates of PUMP. Consequently, the questionnaire was adjusted to the specificities of PUMP, and elaborated. Since the LTSI only measures transfer inhibiting and stimulating conditions, questions about transfer were added (e.g. 'I use the knowledge gained from the program in my daily work'). Given that one of the objectives of PUMP was to create a network of civil servants, questions about 'peer support from student colleagues' were added. Finally, the survey was sent out on paper, and two reminders were sent as well.

3.2. Results

Some descriptive results. The response rate was 62%. A large majority of the respondents gave 4 major reasons why they enrolled the program: personal enrichment

(25%), motivation to participate in the administration's reform (14.8%), career perspectives (11%) and personal interest (12%). In the survey a distinction was made between the working period of the respondent *before* his participation in the program and his working period *after* the program. This is necessary to see whether transfer, because of the program, took place, and because, for some graduates, the time lapse between the program and the survey was about 7 years and career changes might be expected:

- 54% of the respondents didn't participate in reform projects before the program, compared to 43% after the program. The difference between both periods was significant, suggesting that participation in reform projects is stimulated by PUMP (sig. t-value = 0.001). This is relevant, given the program's objective to contribute to the reform.
- The respondents were asked whether their organization took transfer stimulating initiatives. They answered the question for the organization wherein they were active before the program and for their actual situation. 50.4% and 45.5% indicated that their organization didn't take any transfer stimulating initiative.
- Respectively 18.9% and 32.5% of respondents stated that they were asked to take part in modernization projects, which is rather low, given the program's objective.
- At least 75% of the respondents (1) agreed that PUMP had an added value on the daily work, (2) believed to have the capacities to use PUMP, (3) agreed that PUMP was a necessity for the government, (4) stated that non-use of PUMP wasn't perceived negatively by their organization, (5) believed in the utility of the educational program. Other results suggested that supervisor support, peer support, added value from the program to the individual career were perceived rather neutral.

As a result, it can be stated that PUMP had, for the majority, been transferred to the workplace, but that the transfer climate from the federal organizations could be defined as neutral: for most respondents no consequences were linked to the non-use of the program.

Factor analysis. Explorative factor analysis with SPSS was conducted, with direct oblique rotation as extraction method (Field, 2006; Ho, 2006). Only factors with an eigenvalue above 1 were selected (Ho, 2006). The way the variables, with their loadings, are clustered, is demonstrated in the next table. The statistics show that it was reasonable to conduct explorative factor analysis. The KMO *Measure of Sampling Adequacy* provides a value of 0.837 and the *Bartlett's Test of Sphericity* indicates a significance value of 0.000 (Field, 2006). The anti-image correlation matrix demonstrated that the diagonal values were higher than the necessary 0.50 (Field, 2006). The total explained variance by the 18 factors is 71%. The minimum factor loading is 0.30. As a result, the number of lost variables is minimized, and cross loadings are displayed. The few cross loadings can be ignored, since they are inferior to the dominant factor, or because cross loading occurs under a theoretically illogical factor. The table provides the items for each factor, together with the reliability index.

Table 2: Items and factor reliability indices

Variable	Loading	Item	Cronbach's alpha	Factor
Opportunity2	.780	Within the organization I received opportunities to use the knowledge acquired in PUMP	0.898	Opportunities received from the organization to apply PUMP
PUMPverantw1	.760	Within my organization, I was, because of PUMP, charged to cooperate in modernization projects		
Opportunity1	.756	I received opportunities to valorize PUMP		
Opportunity3	.734	Within my organization I received the possibility to propose change initiatives, based on my PUMP-experience		
Verantwtransfer1	.365	My organization kept an eye on me so that I would use PUMP maximally		
PUMPinzicht3	.737	What I have learned in PUMP helps me in my work	0.914	The perception that PUMP has a positive influence on the job (transfer)
PUMPinzicht4	.673	In my daily work, I use, in one way or the other, my acquired knowledge and experience from PUMP		
PUMPinzicht2	.636	PUMP helps me to better make decisions		
Motviation3	.621	After graduating, I believed that PUMP would help me to do my job better		
PUMPinzicht1	.615	Since PUMP, I notice a change in my way of working		
Motivation2	.557	After PUMP I believed PUMP would increase my personal performance		
Organisatieinitiatief1	.522	Because of PUMP I take more quickly initiatives in my work		
PUMPinzicht6	.499	I use PUMP in my work		
Bruikb2	.481	PUMP is immediately useable in my daily work		
Organisatieinitiatief5	.471	Because of PUMP I have already contributed usefully to certain projects		
Self-efficacy2	-.930	Generally, I feel confident enough to try something new in my work	0.810	Self-efficacy
Self-efficacy1	-.921	I have enough self-confidence to take new initiatives, even if the resistance on the workplace is high		
Self-efficacy3	-.597	I have always been sure to have the capacities to use PUMP in my work		
Colleague graduates3	.914	I consult other graduates if I have specific questions on the job	0.874	Support from colleague graduates
Colleague graduates2	.911	I contact other graduates if I need their expertise		
Colleague graduates4	.811	I feel supported by other graduates when I am confronted with difficulties in my work		
Colleague graduates1	.693	The graduates represent a good professional network		
Design2	.822	The trainers used a lot of examples to demonstrate how I could use PUMP in my job	0.871	Level of accordance between PUMP and the workplace
Design3	.780	The exercises made in PUMP, clarified how I could apply what I have learned in my job		
Design1	.721	The trainers had a clear idea about how I could use my acquired knowledge		
Contentvalidity4	.695	The situations described in PUMP, resembled the situations I encounter in my job		
Design4	.623	Because of their teaching methods, the trainers gave me confidence that I would be able to use my acquired knowledge		
Contentvalidity2	.453	The content of the program fitted the practice		

Performance1	-.727	In the organization where I worked one was appreciated if he did his job well	0.914	The attitude of the organization towards performance and change
Performance3	-.710	The organization where I worked at the moment of my participation, appreciated good performances		
Performance2	-.452	The organization where I worked at the moment of my participation had an eye for personal performance		
Resistance5	-.390	Employees who try to initiate new working methods, were discouraged on the job		
Personalpositive1	-.390	Generally speaking, there was satisfaction on the job if new acquired knowledge was used		
Resistance4	-.330	On the job no-one wanted to do some effort to change things		
Resistance2	.325	On the job employees were open to change, if it would ameliorate the organizational performance		
Resistance3	.306	On the job existing working methods were preferred to the application of new learned methods		
Readiness2	.818	From the beginning, I knew what I could expect from PUMP	0.826	Preparedness to the program
Readiness1	.803	Before the program started, I had an idea about how it could be useful for my job		
Readiness4	.736	From the beginning, I knew how PUMP would fit my work situation		
Readiness3	.731	The educational goals from PUMP were clear from the beginning		
Reflection_F4	.786	PUMP is a reflection framework for the future	0.699	PUMP is a reflection framework for the future
Time2	.738	PUMP is a process of maturation		
Organisatieinitiatief4	.397	PUMP helps to initiate change		
Reflection_F2	-.764	The federal administration needs a program as PUMP to reflect about the future of the Belgian public sector	0.767	The extent to which the federal government needs PUMP
Reflection_F1	-.709	The federal government needs the insight which is provided by PUMP		
Managersupport1	-.706	My supervisor was receptive for everything what was learned in PUMP	0.581	Supervisor support
Managersanctions2	.686	My supervisor didn't find a program like PUMP useful		
Managersupport4	-.617	My supervisor was interested in what I learned from PUMP		
Managersupport5	-.597	My supervisor expected me to use the knowledge from PUMP at a maximum		
Managersupport2	-.553	My supervisor encouraged me to use PUMP at a maximum		
Motivation1	-.459	During the program I already thought about how I could use PUMP in my work		
Managersanctions1	.450	My supervisor didn't want me to use what I had learned in PUMP		
Managersupport3	-.445	During the program I had discussions with my supervisor about how my PUMP-experience could be used in the organization		
Personalpositive2	-.323	On the job it was appreciated if I used knowledge from PUMP		

Variable	Loading	Item	Cronbach's alpha	Factor
PUMPcarrière2	.681	PUMP represents a step forward in my career	0.817	Contribution from PUMP to the career
PUMPcarriere3	.668	PUMP is an added value on my CV		
PUMPcarrière1	.656	PUMP is a step forward in my career		
Personalpositive3	.591	If I do not use PUMP, my chances on promotion will be smaller		
PUMPverantw2	.508	Within the organization I am more quickly approached to take up new responsibilities		
Peersupport3	.871	My colleagues were interested in what I would be able to do with PUMP on the job	0.864	Support from colleagues
Peersupport2	.847	My colleagues expect me to use PUMP in my job		
Peersupport4	.833	My colleagues encourage me to use PUMP in my work maximally		
Peersupport1	.735	My colleagues supported my participation in PUMP		
Personalnegative2	-.738	In my organization I was asked for explanation if I didn't want to contribute to projects where my acquired knowledge could be used	0.824	Dissatisfaction in case of non-use of acquired knowledge
Personalnegative3	-.700	In my organization it was not accepted if acquired knowledge would remain unused		
Personalnegative1	-.567	It would not have been appreciated if I would not use PUMP on the job		
Personalnegative4	-.517	If I would not use PUMP in the organization, I would receive negative comments		
Feedback1	.702	On the job, I had regularly conversations about how to improve my personal performance	0.800	Feedback on individual performance
Managersupport6	.522	My supervisor made clear what he expected from me after PUMP		
Feedback2	.479	On the job I regularly received advice about how I could improve my personal performance		
Feedback3	.409	After PUMP I received feedback about how well I used my training		
Performance4	.327	When I did something good on the job, I quickly received positive reactions		
Personalcapacity3	.782	I don't have time to reflect about my way of working, neither to adjust this way of working.	0.449	Personal possibilities to use PUMP
Personalcapacity1	.564	I was to busy to think about how I could apply PUMP in my job		
Effort1	.569	I believe that educational programs generally lead to personal performance improvement	0.104	Content?
Time1	.532	The utility of PUMP is only noticeable a few years after the program		
Effort3	-.726	Those who try to learn, will eventually perform better	0.553	Belief in the utility of educational programs
Effort2	-.621	The more someone applies his acquired knowledge, the better he does his job		
Organiatieinitiatief3	.617	Since PUMP I try to sensibilize my colleagues for certain change initiatives	0.409	The space one has in the organization to take initiatives
Organiatieinitiatief2	.433	Since PUMP I regularly take initiatives in certain projects		
Managersanctions3	.384	My supervisor hoped that I would take up my old tasks as soon as possible after PUMP		
Verantwtransfer2	-.749	If I want to use PUMP in the organization, I need to take up responsibility myself	0.297	Isolation from the individual in change processes
Resistance1	.553	On the job there is a lot of resistance towards change		

The different factors can be seen in the table above. Important is the following: first, 'the program's impact on the daily job'. This factor can be considered as transfer and is the most important dependent variable; second, another nature of transfer was explored: PUMP as a reflection framework, questioning whether new theoretical insights might, implicitly, influence the individual's work; third, the possibilities to use PUMP. Basically, it refers to the available amount of time to apply PUMP. Remark that the reliability is rather low (0.449). However, given the theoretical importance, this factor has been taken into account. Fourth, factor 16 was theoretically difficult to interpret, with a low alpha-value, and was therefore retrieved from further analysis. The same goes for the last factor.

The table below presents the inter-factor correlations. Discriminant validity was tested, to see if the different factors are measuring different aspects (Hatcher, 1994). The interval was calculated for the highest significant correlation (r = 0.627): if the validity is demonstrated for that correlation, the other correlations are also valid. The next formula is used:

$$z' \pm z\frac{1}{\sqrt{N - 3}}$$

The interval (reliability: 99%), ranges from 0.36 to 0.74: discriminant validity is confirmed.

Regression analysis. Regression analyses were conducted to define relations between dependent and independent variables (Miller *et al.*, 2002; Kerr, Hall and Kozub, 2002). Three dependent variables were initially identified: the extent to which the graduates use their knowledge in their daily work (i.e. transfer), the extent to which they use it as a reflection framework (i.e. another possible form of transfer), and the added value of the program to their career. The latter was also considered as independent variable. A fourth was added afterwards: self-efficacy, given its importance in past research. Two different regression procedures were used: a forward stepwise procedure and a hierarchical regression analysis, to see what the relative importance of each variable in the model is (Miller *et al*. 2002; Field, 2006; Cohen and Cohen, 1983). First, transfer as dependent variable was investigated. The model is provided in Table 4.

The R^2-value is relatively high (53.8%). According to these results, in combination with the extra statistics provided in Table 5, it is clear that there will be more transfer, if (1) the program better fits the work situation, (2) one believes that PUMP will lead to a career growth, (3) one considers PUMP as a reflection framework (4) one has the feeling to be supported by colleague graduates, (5) one has more self-confidence, (6) one comes from an older PUMP-generation, (7) one is older, (8) one believes more in the utility of educational programs. Important in table 6 are the collinearity statistics. The 'Tolerance'-index indicates how strong the variables are correlated to each other: no collinearity problem occurs.

Table 3: Correlation matrix

	Opportunities received	Transfer	Self-efficacy	Colleague graduates support	Transfer quality PUMP	Attitude towards performance	Preparedness	PUMP as Reflection framework	Necessity PUMP	Supervisor support	Added value to career	Colleague support	Disapprove non-use	Feedback	Time for transfer	Belief in use programs	Room for initiatives
Opportunities received	1																
Transfer	.325(**)	1															
Self-efficacy	.068	.298(**)	1														
Colleague graduates support	.064	.328(**)	.107	1													
Transfer quality PUMP	.210(**)	.512(**)	.237(**)	.280(**)	1												
Attitude towards performance	.570(**)	.118	-.040	.062	.096	1											
Preparedness	.116	.343(**)	.243(**)	.077	.381(**)	.058	1										
PUMP as Reflection framework	.124	.501(**)	.193(**)	.199(**)	.353(**)	.013	.210(**)	1									
Necessity PUMP	.135	.462(**)	.163(*)	.219(**)	.354(**)	-.035	.262(**)	.433(**)	1								
Supervisor support	.621(**)	.235(**)	.075	.085	.183(*)	.690(**)	.145	.071	.040	1							
Added value to career	.446(**)	.560(**)	.132	.148(*)	.289(**)	.280(**)	.183(*)	.347(**)	.358(**)	.398(**)	1						
Colleague support	.433(**)	.209(**)	.017	.108	.267(**)	.426(**)	.138	.085	.212(**)	.499(**)	.374(**)	1					
Disapprove non-use	.592(**)	.296(**)	.033	.227(**)	.157(*)	.581(**)	.217(**)	.122	.117	.582(**)	.344(**)	.390(**)	1				
Feedback	.558(**)	.254(**)	.032	.177(*)	.198(**)	.616(**)	.075	.086	.039	.676(**)	.382(**)	.454(**)	.520(**)	1			
Time to transfer	-.118	-.227(**)	-.258(**)	-.079	-.244(**)	-.080	-.215(**)	-.099	-.176(*)	-.178(*)	-.127	-.136	-.108	-.087	1		
Belief in use programs	.144	.373(**)	.186(*)	.140	.243(**)	.011	.215(**)	.344(**)	.184(*)	.083	.282(**)	.098	.203(**)	.171(*)	-.032	1	
Space for initiatives	.359(**)	.627(**)	.104	.139	.377(**)	.267(**)	.231(**)	.350(**)	.326(**)	.325(**)	.525(**)	.217(**)	.289(**)	.316(**)	-.133	.236(**)	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table 4: Regression model dependent variable: transfer

R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics				
				R^2 Change	F Change	df1	df2	Sig. F change
.747	.558	.538	.48464	.009	3.620	1	179	.059

Predictors: (Constant), Program, Career, ReflectionF, Colleague graduates, Self-efficacy, PUMP generation, Year of birth, Belief_UtilityProgram

Table 5: Coefficients regression model

	Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Correlations			Collinearity Statistics
	β			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance
(Constant)		3.447	.001	52.980	194.847				
PROGRAM	.251	4.454	.000	.148	.382	.504	.316	.221	.775
CAREER	.385	6.832	.000	.232	.421	.545	.455	.339	.776
REFLECTIONF	.177	3.088	.002	.072	.329	.468	.225	.153	.748
COLLEAGUE GRADUATES	.131	2.499	.013	.022	.186	.324	.184	.124	.894
SELF-EFFICACY	.102	1.934	.055	-.002	.211	.294	.143	.096	.887
PUMP generation	-.147	-2.847	.005	-.087	-.016	-.101	-.208	-.141	.929
Year of birth	-.114	-2.173	.031	-.020	-.001	-.110	-.160	-.108	.891
BELIEF_ UTILITYPROGRAMME	.104	1.903	.059	-.004	.211	.372	.141	.095	.833

a Dependent Variable: TRANSFER

Second, 'PUMP as an added value to the career' was used as dependent variable. The results (Table 6) demonstrate that it is determined by the opportunities received in the organization, transfer, support from colleagues and age. This model explains 41.6% of the variance. Again, collinearity is not a problem.

Table 6: Regression model dependent variable: added value to the career

R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics				
				R^2 Change	F Change	df1	df2	Sig. F change
.655	.428	.416	.64268	.029	9.281	1	183	.003

Predictors: (Constant), Opportunities, TRANSFER, PEERS, Year of birth

(e) Dependent Variable: CAREER

Table 7: Coefficients regression model

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
(Constant)	-38.154	12.641		-3.018	.003	-63.095	-13.213					
Opportunities	.152	.052	.188	2.909	.004	.049	.256	.433	.210	.163	.749	1.335
TRANSFER	.558	.071	.473	7.858	.000	.418	.698	.545	.502	.439	.861	1.162
PEERS	.147	.061	.152	2.421	.016	.027	.267	.366	.176	.135	.788	1.269
Year of birth	.020	.006	.178	3.046	.003	.007	.032	.188	.220	.170	.916	1.092

a Dependent Variable: CAREER

Third, self-efficacy was used as dependent variable, given its importance in previous research. Three independent variables are identified: (1) preparedness, (2) the PUMP-generation and (3) the quality of the program. This model explains almost 10% of the variance.

Table 8: Model regression analysis self-efficacy

R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics				
				R^2 Change	F Change	df1	df2	Sig. F change
.335	.112	.098	.66090	.026	5.370	1	184	.022

Predictors: (Constant), Preparedness, PUMP generation, Program

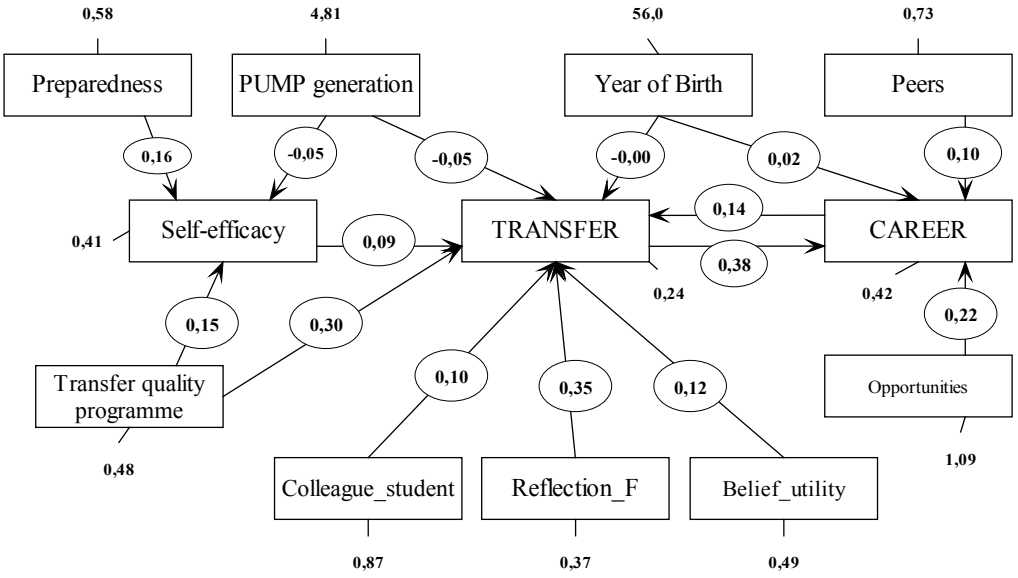
Table 9: Coefficients of the regression model

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
(Constant)	122.524	48.029		2.551	.012	27.766	217.281					
Preparedness	.186	.070	.199	2.637	.009	.047	.325	.242	.191	.183	.846	1.182
PUMP generation	-.060	.024	-.174	-2.488	.014	-.107	-.012	-.134	-.180	-.173	.981	1.019
Program	.179	.077	.174	2.317	.022	.027	.331	.235	.168	.161	.856	1.169

a Dependent Variable: Self-efficacy

3.3. Structural equation model

With the results of the regressions, a structural equation model (SEM) was constructed, to confirm the regressions simultaneously (Hair *et al.*, 1995). Those analyses are conducted with Lisrel. The output is provided visually.



Chi-square = 27.61, df = 15, P-value = 0.02414, RMSEA = 0.075

Figure 1: Output SEM Lisrel

The equations are all confirming the different regression analyses. The fit-indices in Table 10 below confirm that the model has enough fit to be used and interpreted like it has been done.

Table 10: Indices SEM

RMSEA	Normed Fit Index	Non-normed Fit Index	Comparative Fit Index	Incremental Fit Index	Relative Fit Index	Goodness of Fit Index
0.075	0.96	0.90	0.98	0.98	0.81	0.97

4. Discussion of the results

Individual and program characteristics are determining transfer directly and organizational characteristics are merely absent. Both the descriptive and explanatory results have demonstrated that the transfer climate can be defined as neutral. This does not mean that organizational features are unimportant or unnecessary. If they would be present, participants could have a higher transfer level perception. The question is what should be done first to enhance transfer: fortifying factors from which we know they have an impact, or focusing on factors from which we assume they could have an impact, but are absent in the analysis above? Therefore, let's focus first on the factors that are presented in the model. For the *individual* it is clear that age, PUMP-generation, self-efficacy, 'the belief in the utility of programs' and 'the belief that PUMP is a reflection framework for the future' are important elements increasing transfer. Of course, age cannot be manipulated, but it is something that can be taken into account in the selection procedure of a program. The same goes for the belief in PUMP's value for the future and the utility of programs, since those are indicators of a certain attitude towards PUMP in particular and educational programs in general. Therefore, a transfer enhancing mechanism would be the intensification of the selection procedure. If the input can be controlled seriously, the output may generate more expected outcomes. The basic idea is that if transfer is taken into account from the beginning, it may probably have a bigger chance to succeed than when emphasis is only put on transfer enhancing mechanisms during the transfer process (Broucker, 2014). When it comes to the effect of generation on transfer, it is important to emphasize the time-aspect, since transfer may take longer than expected: the bigger the time span between participation in a management program and transfer measurement, the more likely it is to measure transfer. For the *program*, it is clear that the resemblance between learning situation and work situation is crucial. Interesting in this debate however, is the support from colleague students, as shown by the results. From that perspective it is not only necessary to talk about the transfer climate of the organization, but also about the transfer climate of the program: are participants supportive towards each other to transfer and use their acquired knowledge? Are they helping each other with certain problems in their work, thereby crossing organizational boundaries? For the *organizational* features, no variable has been identified as having a direct impact on transfer. Yet, four factors are more or less connected to organizational features: the belief that the program has an impact on career (direct effect), opportunities received

(indirect effect), preparedness (indirect effect) and support from peers or colleagues at work (indirect effect). Those are related to organizational dynamics. First, the preparedness of an employee to enter the program depends on the communication process, not only from the program organizers but also from his organization. The organization must clarify why the employee is enrolled and what is expected from him afterwards. This seems obvious, but isn't. Second, to have an impact on the career, the employee must have an idea of the usefulness of the program for the organization and his job. This is the result of a clear link between the program and the general HRM-processes and is the structural embeddedness of an educational program in an organizational strategy. Third, opportunities received are direct interventions from the supervisor or on demand from the graduate. An opportunity may be a different job content, new tasks or responsibilities. Fourth, support from colleagues at work. It seems obvious that the impact of colleagues is important since they are in direct contact with the participant. Therefore it seems important to involve, in one way or the other, colleagues by informing them about who will follow which educational program and why. This may reduce a possible resistance caused by ignorance and stimulate support. It may also be interesting to define certain responsibilities for the colleagues in the transfer process of the employee. As a result it is necessary to focus on the link between the program and the general HRM-processes, the opportunities provided and the communication towards the participant and the colleagues.

5. Conclusion

The purpose of this article was to provide a clear list of some important factors upon which further research could be focused and at the same time providing a small, but relevant group of factors that can be switched relatively easy in transfer stimulating conditions. It is clear that this will not solve completely the lack of transfer, but bearing in mind what the regression analyses have provided, it seems necessary and important to focus on those variables first. For practitioners it is necessary to have a clear idea of what can be done to improve transfer, even if this is not a guarantee. For researchers, it will always be necessary to try to understand the complexity of the real world, and it is only by detailed research that we will come to a simple set of transfer stimulating conditions. To combine the two ambitions, i.e. satisfying practitioners and researchers with the results of this article, the table below provides suggestions for concrete actions and for further research. By doing this, this article tries to reduce the amount of variables that may have an impact on transfer and wants to prioritize those variables, without increasing the complexity of the debate.

Table 11: Transfer stimulating factors

Characteristics	Factors	Suggestions for practitioners	Suggestions for further research
Individual characteristics	Age	The communication process should clearly define which target group is in the focus. Age may be an indicator in that process.	Transfer research should more be focused on the set of values and beliefs an individual has towards educational programs. His motivation to transfer acquired knowledge will probably depend upon those values, which make them an important priority.
	Self-efficacy	• Controlling vigorously the selection procedure: what values do the participants have about educational programs in general and this program in particular? What do they think from educational programs? How do they perceive their own capacities? • Communication process: what is the goal of the program? What will employees know afterwards, and what will they be able to do? Describing goals should not just be in general terms, but in detail.	
	Belief in the utility of programs		
	Attitude towards the program		
Training characteristics	Transfer quality of the program	Teaching methods and program content that clearly focus on actual problems and situations in the workplace. This also depends on the program: does the program want to encounter a real problem in the work place or are more general competencies trained?	Two important program characteristics can be defined: (1) the relationship with colleague students. Until now this aspect hasn't been much in the focus of transfer research. (2) general program characteristics and the link between learning situation and work situation. This aspect has been confirmed by previous research.
	Support from colleague students	Training should not be an isolated activity and should be continued afterwards (networking). By clearly controlling the selection procedure a group can be selected that has the same potential and expectations. This is not necessarily a homogenous group. What is important is the unity of the group, and this can be stimulated during the training period.	
Organizational characteristics	Preparedness	Communication process: participants must have a clear idea of what can be expected from the program and what is expected from them after the program.	It would be interesting to focus the research on organizational characteristics more on the structural embeddedness of the program. This embeddedness takes form in three different ways: (1) the job content, which manifests itself by provided opportunities, (2) the career path, which is made clear by placing the program in a career perspective and in the organizational goals, (3) the social embeddedness by involving colleagues. The preparedness of the individual is related to those aspects, because he must be aware of this embeddedness. Research should focus clearly on those aspects.
	Belief in added value towards career	Organizations must clearly define what the position of a program is within the general competency management, the link with the job requirements, the organizational goals and career perspectives. In other words: the organization must clearly define why a certain program is necessary for the organization and useful/interesting for the participant.	
	Opportunities provided	Impulses from the organization: it is clear that if the participant is prepared to the program and has certain expectations about what will happen after the program, the necessary opportunities have to be provided in order to fulfil those expectations. Organizations do have a responsibility towards the employee after the program has taken place.	
	Peer support	Colleagues should be informed about the participation in training programs of other employees.	

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