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Supported employment and job outcomes. Typicalness and other related variables

F.B. Jordán de Urríes^{*}, M.A. Verdugo, C. Jenaro, M. Crespo and C. Caballo University Institute for Community Integration of the University of Salamanca (Instituto Universitario de Integración en la Comunidad (INICO). Universidad de Salamanca), Salamanca, Spain

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Abstract. The purpose of this study is to improve supported employment programs analyzing the relationships between different variables involved in its development on job outcomes. One important variable is typicalness (understood as the degree to which the job of the person with a disability is similar in its different characteristics to that of co-workers without a disability). It also compares sheltered employment and supported employment in employment outcomes. The results showed more length of service in the job and salary for supported employment workers. As regards the developmental variables, time of external support, type of support, and adaptations are critical to get better outcomes. Finally, the need to finely balance the typicalness of the job and the characteristics of the worker involved is stressed.

Keywords: Supported employment, typicalness, job outcomes

1. Introduction

Supported employment development needs a continuous improvement of its practices to get the best job outcomes possible. Research can arise these critical elements.

Supported employment is a modality of job integration for persons with a disability that arose in the 1980s in the US and has been defined and studied by different researchers [9,14,24,25,27,29]. It implies the placement of a worker with disability, who is not able to get or maintain an integrated employment, in a normalized job site, providing him training and long term support.

Job outcomes are the set of results derived from performing a job that a worker can achieve to a greater or lesser degree. Job outcomes have been used by different authors as an element of analysis and comparison regarding the employment of persons with a disability [4,5,8,10,12,20,22,28]. Mank specifies job outcomes by referring to hours of work per week, length of service, salary and job benefits [7,13,15–19,23].

Natural supports are considered one of the key aspects of the practical development of supported employment, and there are many authors who have dealt with this [2,3,6,11,21,24,27]. By natural support we mean any strategy, resource, relation, or interaction provided by persons, procedures, instruments or equipment that (a) is typically available and/or is culturally suitable in the community environments surrounding a person, (b) facilitates the obtaining of positive results in the professional and social spheres and (c) increases the quality of life of the person.

In relation to the natural supports we have *typical*ness or similarity in employment as a relatively recent concept, and which is understood as the degree to which the characteristics of job accessibility, the job itself (duties, benefits, etc.) and the job environment (places, co-workers, etc.) are similar to those of co-workers without a disability in the same company Research developed by David Mank et al. shows the importance of enhancing typicalness to improve job outcomes and

^{*}Address for correspondence: Instituto Universitario de Integración en la Comunidad, Universidad de Salamanca, Avenida de la Merced 109-131, 37005 Salamanca, Spain. Tel./Fax: +34 923 294726; E-mail: bjordan@usal.es.

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integration [7,13,15–19,23]. Typicalness is defined according to the four elements that comprise it: job acquisition and hiring, job characteristics, management of human resources and social aspects. These four characteristics provide a general index of similarity. It should be said with respect to this concept that typical and similar do not necessarily mean better, since we are working with a population with even more pressing difficulties (within the group of persons with a disability) in obtaining employment in an ordinary company within the community. Thus, the balance between typical and specifically adapted always remains in the hands of the professional who must establish the proper criteria in each case.

2. Approach

Our objective was to carry out research for practical applications that would analyze which employment variables (independent variables such as type of job, typicalness, as well as variables having to do with the worker, the position and the employer) were related to the highest job outcomes (dependent variables such as hours of work per week, length of service, salary and job benefits). We thus posed the following hypotheses:

- (H1) Workers in supported employment will have better job outcomes than those in sheltered employment
- (H2) Workers in more typical jobs will have better job outcomes.
- (H3) Job outcomes vary according to the characteristics of the support offered to the workers with an intellectual disability and their co-workers.
- (H4) Job outcomes also vary according to the characteristics of the workers, the jobs and the employers.

At the same time we wished to find out what types of jobs are associated with the highest levels of typicalness and what the characteristics are of the companies that hire workers with an intellectual disability by means of supported employment services.

3. Method

3.1. Participants

To carry out this research, contact was established with 9 different organizations, 6 of which have job programs or services with support and 3 have sheltered employment centers.

The total group comprised 232 participants distributed in two groups: 160 in supported employment (SE) and 72 in sheltered employment centers(SEC). All the participants had an intellectual disability, which was slight in 56.9% of the participants in both groups. The rest of the participants characteristics can be seen in Table 1. We must indicate that the supported employment group, according to previous studies, makes up 6.62% of the total population under study, which in Spain comprised 2,417 people at the end of 1999 [8, 27].

3.2. Instrument

To carry out this research the Typicalness Questionnaire was used. The Typicalness Questionnaire was translated and adapted to Spanish based on that developed by David Mank and his colleagues [7,10,12–16, 19]. It is designed to be completed by a person close to the worker with a disability who is deeply familiar with his/her job situation and the aspects surrounding it. The Typicalness Questionnaire has 75 items divided into 5 sections: A. Confidential Information, B. General Information, C. Information concerning the Disability, D. Information on the Job and E. Information on the Company Personnel.

3.3. Design and procedure

Our research combined two kinds of study [1]. On the one hand, a descriptive study was made to respond to questions about the characteristics of the sample based on information collected in the questionnaires. On the other hand, a correlational causal-comparative study was carried out in which the participants in the sample were compared in different dependent variables with regard to different independent variables (see Table 2). The differences between groups determined by presence or not of the variables were examined using multivariate analysis of variance (MANOVA), which also allowed us to control for the correlations among the dependent variables. Consequently, if significant differences appeared, it was possible to eliminate the intercorrelation between the dependent variables as a possible explanation of the differences observed. Univariate analysis of variance (ANOVA) was subsequently carried out when Hoteling's T was statistically significant.

The steps followed to carry out the research consisted of: 1. Selection of participants, taking as a fundamen-

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	Table 1 characteristics
Supported employment (160)	Sheltered Employment Centers (72)
Male (71.3%)	Malc (86.1%)
Age 22 to 30 (54.4%)	Age 31 to 40 (47.2%)
Living at family home (88.8%)	Living at family home (77.8%)
3 to 5 members (73.2%)	2 to 4 members (80.5%)
Primary studies (46.3%)	Occupational training (58.3%)
Intellectual disability (100%)	Intellectual disability (100%)
Mild (56.9%)	Mild (56.9%)
Associated disabilities (29.4%)	Associated disabilities (44.4%)
Behavioral problems (25%)	Behavioral problems (12.5%)
Mild problems (16.3%)	Mild problems (8.3%)
	iriables analized
Independent	Dependent
Type of employment	Job outcomes
- Sheltered employment	- Hours of work per week
 Sheltered employment Supported employment 	 Hours of work per week Length of service
 Sheltered employment Supported employment Individual variables (age gender,) 	 Hours of work per week Length of service Salary
 Sheltered employment Supported employment Individual variables (age gender,) Employment variables (Type, adaptations) 	 Hours of work per week Length of service Salary Job benefits
 Sheltered employment Supported employment Individual variables (age gender,) Employment variables (Type, adaptations Company variables (size, sector,) 	 Hours of work per week Length of service Salary Job benefits Typicalness variables (as dependent)
 Sheltered employment Supported employment Individual variables (age gender,) Employment variables (Type, adaptations Company variables (size, sector,) Support to coworkers variables (hours, type) 	 Hours of work per week Length of service Salary Job benefits Typicalness variables (as dependent) pc,) – Acquisition
 Sheltered employment Supported employment Individual variables (age gender,) Employment variables (Type, adaptations Company variables (size, sector,) Support to coworkers variables (hours, type, Support to worker variables (hours, type, 	 Hours of work per week Length of service Salary Job benefits Typicalness variables (as dependent) pe,) Acquisition Job characteristics
 Sheltered employment Supported employment Individual variables (age gender,) Employment variables (Type, adaptations Company variables (size, sector,) Support to coworkers variables (hours, type, Support to worker variables (hours, type, Typicalness variables (as independent) 	 Hours of work per week Length of service Salary Job benefits Typicalness variables (as dependent) pe,) Acquisition Job characteristics Management
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 Sheltered employment Supported employment Individual variables (age gender,) Employment variables (Type, adaptations Company variables (size, sector,) Support to coworkers variables (hours, type, Support to worker variables (hours, type, Typicalness variables (as independent) 	 Hours of work per week Length of service Salary Job benefits Typicalness variables (as dependent) pe,) Acquisition Job characteristics Management

tal criterion that their main disability had to be an intellectual one, and in the case of supported employment that they have individual jobs, 2. Training of those who were to give the questionnaire, with two day sessions in each organization in which administering the questionnaire was modeled with several participants, to then arrive at a consensus and resolve any questions, thus unifying the procedure, and 3. The questionnaires were administered by the trained questionnaire givers.

4. Results

As regards the hypothesis that workers in supported employment will have better job outcomes than those in sheltered employment, the results showed significant differences in three of the four variables considered. Table 3 shows that those in supported employment had longer length of service, higher salary, but lesser job benefits. There was no difference in weekly work hours between the two groups.

With respect to the hypothesis that workers in more typical jobs will have better job outcomes (see Table 4), it was observed that overall typicalness is not related to job outcomes, although relationships do appear when components of typicalness are considered separately. These results show that the most typical job characteristics are positively correlated to weekly work hours, length of service and job benefits. On the other hand, the most typical human resources management is negatively related to work hours and length of service and positively to job benefits. Finally, the most important relationships are established with regard to job benefits, which are positively corelated to all the components of typicalness, with the exception of job acquisition, with which it has a negative relationship.

As to the hypothesis that job outcomes vary according to the characteristics of the support offered to the workers with an intellectual disability and their coworkers, it can be seen in Table 5 that a greater number of hours of support per week for co-workers is positively associated with length of service in the job, but negatively associated with job benefits. Likewise, a greater number of support hours provided to the worker by a professional is associated with fewer job benefits.

It can also be seen how the support provided by the work coach or specialist is associated with longer length of service. The opposite occurs with generic training or guidance concerning disabilities provided

	~	Table 3			
	fferences in job outco				
Variables		N	Mean	<u>s.</u> d.	F
Weekly job hour	rs				0.082
SE		153	37.32	6.14	
SEC		69	37.04	7.76	
Length of servic	e in the job (no of mo	onths)			9.768**
SE		159	47.74	49.83	
SEC		69	27.71	28.20	
Monthly wage					13.010**
SE		155	92761.25	41362.76	
SEC		72	75007.42	7972.29	
Job benefits					30.462**
SE		160	3.35	1.00	
SEC		72	4.00	0.00	
**p < 0.01 / *p	0 < 0.05.				
		Table 4			
	Relationship betwe	cen typicalness	and job out	comes	
	Weekly job hours	Length of s the job (no o		Monthly wag	ge Job benefit:
General Typicalness					
					-0.362**
Acquisition					
Acquisition Characteristics	0.199*	0.18)~		0.268
	0.199* -0.181*	0.18: -0.21:			0.268** 0.299**

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 $p^{**}p < 0.01 / p^{*} < 0.05.$

to the co-workers, which are associated with a shorter length of service, but a greater number of job benefits.

The formal support provided to co-workers by means of staff meetings is associated with a longer length of service, higher salaries and greater number of job benefits. When the support is offered at the beginning of the job there is longer length of service, the same as when it is offered on a continual basis.

Finally, with respect to this group, the support provided by co-workers is positively related to the highest salaries as well as to the greatest job benefits, and the support provided by supervisors or managers is associated with longer length of service in the job.

Focusing on the hypothesis that *job outcomes vary* according to the characteristics of the workers, the jobs and the employers we first look at the relationship between personal characteristics and job outcomes. Table 6 shows that gender is related to salary and job benefits, the men earning significantly higher salaries with better job benefits. Age is also related to job benefits, these being better in the older age groups, particularly the 22 to 30 year-olds. Significant differences were also found as regards the level of previous training, as it was shown that except for special education, the highest educational levels were associated with a longer length of service. As regards the presence of other disabilities, significant relationships were found between these and job benefits, the benefits decreasing in the presence of other disabilities. A relationship was also found between behavioral problems and weekly work hours, the latter increasing in the presence of these problems and the more severe they are. There were no significant differences regarding the level of intellectual disability.

With regard to the relationship between the job characteristics and job outcomes, it can be seen in Table 7 that there are significant differences regarding length of service, the latter being longer in the presence of adaptations, the opposite being the case with salary and job benefits. There are also significant differences regarding the nature of the job, newly created jobs being associated with longer length of service, while jobs made up from parts of others are associated with fewer job benefits. The number of daily contacts with the public is associated significantly with job benefits in the sense that the more contact the greater the job benefits, as well as with monthly salary, this being higher when there are between 6 and 15 daily contacts with the public. Finally in this group, the presence of contact with the public is related to weekly work hours, which increase as the contact increases.

Finally, respect to the relationship between the characteristics of the company or employer and job out-

Table 5 Summary of significant relationships of some support variables with job outcomes					
Variables	Job outcomes				
	Weekly job hours	Length of service in the job (no of months)	Monthly wage	Job benefits	
Weekly hours of support to coworkers		Mean 1=35.42		Mean 1=3.68	
(1 = < once a week, 2 = < 1 hour, 3 = 1		Mcan 2=54.05		Mean 2=3.11	
to 3 hours)		Mean 3=75.73		Mcan 3=2.65	
		F=10.544**		F=19.174**	
Weekly hours of direct support to the dis-				Mcan 1=3.61	
abled worker provided by external pro-				Mean 2=3.01	
fessionals (1=less than 1 hour, 2=more than 1 hour)				F=14.972**	
Support provided by job coach or		Mean SI=50.79			
specialist		Mean NO=16.56			
		F=6.974**			
Training or orientations about disability		Mean SI=33.77		Mean SI=3.51	
to coworkers		Mean NO=59.89		Mean NO=3.19	
		F=11.126**		F=4.177*	
Information about how to train or sup-		Mean SI=51.77		Mean SI=3.26	
port to workers with disabilities		Mean NO=29.14		Mcan NO=3.69	
		F=4.924*		F=4.326*	
Support to coworkers provided formally		Mcan SI=64.05	Mean	Mean SI=3.60	
(meetings with company staff)		Mean NO=40.74	SI=104410.21	Mean NO=3.23	
		F=6.940**	Mean	F=4.333*	
			NO=87570.32		
			F=5.160*		
Support at the beginning of the job		Mean SI=53.00			
		Mcan NO=33.33			
a		F=4.851*			
Ongoing support		Mean SI=53.11			
		Mean NO=33.05			
Constant in the large large		F=5.051*	Maria	N	
Support provided by coworkers			Mean	Mean SI=3.48	
			SI=96049.28 Mean	Mean NO=2.82 F=11.641**	
			NO = 78977.66	r=11.041**	
			F=4.255*		
Support provided by supervisors or		Mean SI=53.54	1-=4.255		
		Mean $NO=35.39$			
managers		F=4.757*			

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p < 0.01 / p < 0.05.

comes, significant relationships were observed between the activity sector of the company and length of service, which is greater in the industrial sector followed by the trade and service sectors. As regards the number of employees, there are significant differences relating to job benefits, such that benefits are greater in companies of 51 to 100 employees followed by those with 26 to 50. Concerning the number of employees with a disability in the immediate environment, there are significant differences regarding length of service, which is longer when there is only one co-worker instead of two. Finally, with respect to this group, a relationship was observed between the company's providing guidance for new workers and length of service, which is longer when this guidance is offered. These results can be seen in Table 8.

Although they were not previously included in the hypothesis, data obtained allowed us to address two additional questions. The first concerned characteristics of the job that are, to some degree, related to typicalness. In this sense, the absence of adaptations in the job (see Table 9), and whether it is an already existing job and not one of new creation, are associated with more typical human resources management and social aspects. As to support, our findings indicate that fewer hours of external support is also associated with more typical management of human resources and social aspects. The typicalness of social aspects is associated with a greater number of contacts with co-workers who do not have a disability. Job acquisition is more typical in the industrial sector, followed by services and trade, but this is reversed in the typicalness of human

0		Table 6					
	Summary of significant relationships of some individual variables with job outcomes Job outcomes						
Variables	XV-shi ish harris						
	Weekly job hours	Length of service in the job (no of months	Monthly wage	Job benefits			
Gender (1=male, 2=female) Age (1=16 to 21, 2=22 to 30, 3=31 or +)			Mean 1=97102.66 Mean 2=81453.40 F=4.550*	Mean 1=3.48 Mean 2=3.02 F=7.258** Mean 1=2.92 Mean 2=3.49			
01 T)				Mean $3=3.30$ F=3.307*			
Educational level (1=special educa-		Mean 1=25.26					
tion, 2=primary, 3=job skills,		Mean 2=59.00					
4=occupational training or secondary		Mean 3=53.04					
or vocational training)		Mean 4=40.84 F=2.753*					
Presence of other disabilities				Mean SI=2.91			
				Mean NO=3.5			
D				F=13.653**			
Presence of behavioral problems	Mean SI=39.43 Mean NO=36.36 F=7.208**						
Severity of behavioral problems (1=none, 2=mild, 3=medium or severe)	Mean 1=36.41 Mean 2=39.35 Mean 3=39.57 F=3.588*						
$p^{**} > 0.01 / p < 0.05.$							
		Table 7					
Summary	feignificent relations		with ich outcomes				
	f significant relations	hips of some job variables					
Summary o Variables			comes	Job benefits			
	f significant relations Weekly job hours	hips of some job variables Job out		Job benefits			
		hips of some job variables Job out Length of service in	comes	Job benefits Mean SI = 2.93 Mean NO = 3.61 F=19.028**			
Variables Presence of job adaptations Nature of the job (1=existent, 2=made up of parts of others,		hips of some job variables Job out Length of service in the job (no of months) Mean SI=67.25 Mean NO=35.60 F=16.666** Mean 1=41.17 Mean 2=68.48	Monthly wage Mean SI =83282.64 Mean NO =98428.88	Mean SI =2.93 Mean NO =3.61 F=19.028** Mean 1=3.48 Mean 2=2.70			
Variables Presence of job adaptations Nature of the job (1=existent,		hips of some job variables Job out Length of service in the job (no of months) Mean SI=67.25 Mean NO=35.60 F=16.666** Mean 1=41.17 Mean 2=68.48 Mean 3=71.90	Monthly wage Mean SI =83282.64 Mean NO =98428.88	Mean SI =2.93 Mean NO =3.61 F=19.028** Mean 1=3.48 Mean 2=2.70 Mean 3=3.50			
Variables Presence of job adaptations Nature of the job (1=existent, 2=made up of parts of others,		hips of some job variables Job out Length of service in the job (no of months) Mean SI=67.25 Mean NO=35.60 F=16.666** Mean 1=41.17 Mean 2=68.48	Monthly wage Mean SI =83282.64 Mean NO =98428.88	Mean SI =2.93 Mean NO =3.61 F=19.028** Mean 1=3.48 Mean 2=2.70			
Variables Presence of job adaptations Nature of the job (1=existent, 2=made up of parts of others, 3=newly created)		hips of some job variables Job out Length of service in the job (no of months) Mean SI=67.25 Mean NO=35.60 F=16.666** Mean 1=41.17 Mean 2=68.48 Mean 3=71.90	Monthly wage Mean SI =83282.64 Mean NO =98428.88 F=4.993*	Mean SI =2.93 Mean NO =3.61 F=19.028** Mean 1=3.48 Mean 2=2.70 Mean 3=3.50 F=7.356**			
Variables Presence of job adaptations Nature of the job (1=existent, 2=made up of parts of others, 3=newly created) Number of daily contacts with		hips of some job variables Job out Length of service in the job (no of months) Mean SI=67.25 Mean NO=35.60 F=16.666** Mean 1=41.17 Mean 2=68.48 Mean 3=71.90	Monthly wage Mean SI =83282.64 Mean NO =98428.88 F=4.993* Mean 1=79213.98	Mean SI =2.93 Mean NO =3.61 F=19.028** Mean 1=3.48 Mean 2=2.70 Mean 3=3.50 F=7.356** Mean 1=2.83			

 $p^{**}p < 0.01 / p^{*} < 0.05.$

resources management, which is greater in the trade sector followed by services and industry. The fewer co-workers with a disability in the immediate surroundings of the worker (1 as opposed to 2), the greater the overall typicalness, as well as that of human resources management and social aspects. Concerning guidance provided by the company, the fact that new workers are provided with guidance is associated with higher scores in the typicalness of job characteristics, human resources management and social aspects. The second question was what *characteristics have the companies that hire workers with a disability by means of supported employment*. These are service sector companies, with between 2 and 25 employees, and only one worker with a disability in the immediate environment, which had previously hired workers with a disability, which in 50% of the cases provide guidance to new workers and which do not provide guidance for their

Table 8 Summary of significant relationships of some company variables with job outcomes				
Variables	Job outcomes			
	Weekly job hours	Length of service in the job (no of months)	Monthly wage	Job benefits
Activity sector of the company (1=industrial, 2=trade, 3=services)		Mean $1=66.38$ Mean $2=50.61$ Mean $3=40.62$ F=3.812*		
Number of employees $(1=2 \text{ to } 25, 2=26 \text{ to } 50, 3=51 \text{ to } 100, 4=101 \text{ to } 500)$				Mean 1=2.95 Mean 2=3.57 Mean 3=3.73 Mean 4=3.40 F=5.632**
Number of employees with disability in immediate environment (1 or 2)		Mean 1=57.91 Mean 2=35.32 F=8.159**		
Company provides guidance for new workers		Mcan SI=59.76 Mean NO=33.60 F=5.666**		

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 $p^{**} p < 0.01 / p^{*} < 0.05.$

workers either about diversity or about disability.

5. Conclusions

The data obtained allow us to extract certain conclusions of interest for improving the development of programs of supported employment as we noted at the beginning of the article. The participants who are working in supported employment show longer length of service and better salaries than those working in sheltered employment centers, but receive fewer job benefits.

Our data showed important relationships between some of the components of typicalness and job outcomes but giving contradictory results, and no relationship was obtained when typicalness was considered as a whole, in contrast to previous research data [7, 13,15–19,23]. Only job benefits seem to be related to the components of typicalness, the former being greater the more typical the job characteristics, human resources management and social aspects, but decreasing the more typical the job acquisition. This indicates the need to establish a timely balance between more and less typicalness, or in other words, between the advisability of following typical processes for workers with a disability and the need to adapt them according to their specific needs.

This divergence also appears with respect to the different characteristics of the support provided both for workers with disabilities and their co-workers and their relationship to the job outcomes obtained by the worker in supported employment. Thus, an outstanding element is the negative relationship between the hours of direct support provided by external professionals for both the worker and co-workers and job outcomes, although the opposite happens with length of service. Also important is the positive relationship between the support provided by co-workers and supervisors and the obtaining of greater benefits and length of service. In any case, once again it is clear that it is advisable to establish a suitable balance between typical and adapted in order to achieve the best possible outcomes.

The data referring to the individual variables and their relationship to job outcomes suggest the need to fight against sex discrimination and to foster prior training as well as reduce the occurrence of behavioral problems.

Length of service is greater when the job is adapted and when it is newly created. On the other hand, wages and benefits are greater when such adaptation is not made and the worker has greater contact with the public. Once again we must consider the need to find the right point between typical and adapted.

The job outcomes, mainly length of service, are greater in firms in the industrial sector with not more than one co-worker with a disability in the immediate environment and which provide initial guidance for new workers. Likewise, the job benefits are greater in companies with between 51 and 100 workers.

Finally, typicalness is greater when fewer adaptations are made, less direct support provided, there is more contact with co-workers without disabilities and fewer co-workers with disabilities.

Before concluding we feel we should point out some aspects of this study that may be debatable. As regards the participants, the sample used was not ran-

Table 9 Summary of significant relationships of job variables with typicalness								
Variables	Typicalness							
	General Typicalness	Acquisition	Characteristics	Management	Social aspects			
Presence of job adaptations				Mean SI =27.2609 Mean NO=38.3359 F=25.237**	Mean SI = 14.1500 Mean NO= 17.2977 F= $11.335**$			
Nature of the job (1=existent, 2=made up of parts of others)				Mean $I=38.2797$ Mean $2=30.8400$ F=10.974**	Mean 1=17.2689 Mean 2=15.5000 F=3.897*			
Weekly hours of external sup- port ($1 = <$ once a week, $2 = < 1$ hour per week, $3 = 1$ to 3 hours per week)				Mean 1=42.4571 Mean 2=33.0625 Mean 3=31.1304 F=26.265**	Mcan 1=18.7681 Mcan 2=15.8125 Mean 3=15.6087 F=14.054**			
Number of daily contacts with coworkers without disabilities (1=1 to 5, 2=6 to 15, 3=16 or +)					Mean 1=16.2059 Mean 2=15.4375 Mean 3=17.7800 F=4.703*			
Activity sector of the com- pany (1=industrial, 2=trade, 3=services)		Mean 1=13.4118 Mean 2=8.6000 Mean 3=9.5814 F=3.367*		Mean 1=31.9697 Mean 2=38.2500 Mean 3=37.8687 F=4.327*				
Number of employees with dis- ability in immediate environ- ment (1 or 2)	Mean 1=112.3125 Mean 2=101.8333 F=6.704*			Mean 1=38.4337 Mean 2=34.0213 F=4.937*	Mean 1=17.7619 Mean 2=15.7609 F=8.105**			
Company provides guidance to new workers	12101		Mean SI=50.7414 Mean NO=48.5714 F=5.099*	Mcan S1=32.7049 Mean NO=37.6897 F=8.684**	Mean SI=17.3934 Mean NO=15.4407 F=8.345**			

 $p^* p < 0.01 / p^* < 0.05.$

domly selected. Instead, using specific criteria we selected all the workers possible from among those capable of being chosen. With respect to the questionnaire on typicalness or similarity, the replies were provided by persons who supported and worked for the participants who were in supported employment, with the possible bias that this could generate. Nonetheless, the professionals were trained to attempt to avoid bias. Although no retest was made to ensure the stability of the measurements, with regard to the questionnaire on typicalness or similarity, Mank obtained data in his research works that guarantee the test-retest reliability of the instrument.

To conclude, we believe that although typicalness has proved to be a novel and useful concept for operationalizing what we call natural support, it is important not to lose sight of individual needs and the advisability of adapting job characteristics as necessary to achieve the objective set, which is none other than the success of the worker with a disability in employment.

References

- W.R. Borg and M.D. Gall, *Educational research: An introduction*, fifth edition, Longman, New York, 1998.
- [2] J. Butterworth, D. Hagner, W.E. Kiernan and R.L. Schalock, Natural supports in the workplace: defining an agenda for research and practice, *Journal of the Association for Persons With Severe Handicaps* 21(3) (1996), 103–113.
- [3] M. Callahan, Job site training and natural supports, in: Natural supports at home, school, and in the workplace for people with severe disabilities, J. Nisbet, ed., Paul H. Brookes, Baltimore, 1992.
- [4] R. Gaylord-Ross and J. Chadsey-Rusch, Measurement of work-related outcomes for students with severe disabilities, *The Journal of Special Education* 25(3) (1991), 291–304.
- [5] B. Greenbaum, S. Graham and W. Scales, Adults with Learning Disabilities: Occupational and Social Status After College, *Journal of Learning Disabilities* 29(2) (1996), 167–173.
- [6] D. Hagner, J. Butterworth and G. Keith, Strategies and barriers in facilitating natural supports for employment of adults with severe disabilities, *Journal of the Association for Persons With Severe Handicaps* 20(2) (1995), 112–120.
- [7] C. Jenaro, D. Mank, J. Bottomley, S. Doose and P. Tuckerman, Supported employment in the international context: an analysis of processes and outcomes, *Journal of Vocational Rehabilitation* 17 (2002), 5–21.

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- [8] D.R. Johnson, D.R. Lewis and R.H. Bruininks, Evaluating the effectiveness and efficiency of supported employment programs, *Policy Research Brief* 5(2) (1993), 1–12.
- [9] F.B. Jordán de Urríes and M.A. Verdugo, El empleo con apoyo en España, Una realidad consolidada, in: *Apoyos, autodeterminación y calidad de vida*, M.A. Verdugo and F.B. Jordán de Urríes, coords., Amarú Ediciones, Salamanea, 2001, pp. 521– 536.
- [10] W.E. Kiernan, R. Sanchez and R.L. Schalock, Epilogue. Economics, industry, and disability in the future, in: *Economics*, *industry and disability. A look ahead*, W.E. Kiernan and R.L. Schalock, Paul H. Brooks, Baltimore, 1989, pp. 365–374.
- [11] W.E. Kiernan, R.L. Schalock, J. Butterworth and W. Sailor, Enhancing the use of natural supports for people with severe disabilities, Training and Research Institute for People with Disabilities (UAP), Children's Hospital, Boston, 1993.
- [12] J. Kregel and P. Wehman, Supported employment research: impacting the work outcomes of individuals with disabilities, *RRTC Summer* (1996).
- [13] D. Mank, El proyecto de investigación de apoyos naturales se consolida, in: *II Jornadas Científicas de Investigación sobre Personas con Discapacidad. Libro de Actas*, M.A. Verdugo, C. Caballo, F.B. Jordán de Urries, M. Crespo, C. Jenaro, M.I. Tena, F. Sainz and E. Diez, comps., Instituto de Integraci¤fin en la Comunidad, Salamanca, 1997, pp. 63-74.
- [14] D. Mank, Valores y empleo para personas con discapacidad, Siglo Cero 29(4) (1998), 5–10.
- [15] D. Mank, A. Cioffi and P. Yovanoff, Analysis of the typicalness of supported employment jobs, natural supports, and wage and integration outcomes, *Mental Retardation* 35(3) (1997), 185-197.
- [16] D. Mank, A. Cioffi and P. Yovanoff, Patterns of support for employees with severe disabilities, *Mental Retardation* 35(6) (1997b), 433–447.
- [17] D. Mank, A. Cioffi and P. Yovanoff, Employment outcomes for people with more severe disabilities, *Mental Retardation* 36(3) (1998), 205-216.
- [18] D. Mank, A. Cioffi and P. Yovanoff, The impact of coworker involvement with supported employees on wage and integration outcomes, *Mental Retardation* 37(5) (1999), 383–394.
- [19] D. Mank, A. Cioffi and P. Yovanoff, Direct supports in supported employment and its relation to job typicalness,

coworker involvement, and employment outcomes, Mental Retardation 38(6) (2000), 506-516.

- [20] W.B. McCraughrin, W.K. Ellis, F. Rusch and L.W. Heal, Costeffectiveness of supported employment, *Mental Retardation* 31(1) (1993), 41–48.
- [21] S. Murphy and P. Rogan, *Developing natural supports in the workplace*, Training Resource Network, Saint Augustine, FL, 1994.
- [22] National Institute on Disability and Rehabilitation Research, Supported employment for pcople with severe mental retardation, NIDRR Consensus Statement 1(5) (1993).
- [23] D. Olson, A. Cioffi, P. Yovanoff and D. Mank, Gender differences in supported employment, *Mental Retardation* 38(2) (2000), 89–96.
- [24] K. Storey and N. Certo, Natural supports for increasing integration in the workplace for people with disabilities: a review of the literature and guidelines for implementation, *Rehabilitation Counseling Bulletin* 40(1) (1996), 62–77.
- [25] M.A. Verdugo and C. Jenaro, Una nueva posibilidad laboral para personas con discapacidad, Siglo Cero 24(3) (1993), 5-12.
- [26] M.A. Verdugo and F.B. Jordán de Urríes, Panorámica del empleo con apoyo en España, Real Patronato sobre Discapacidad, Madrid, 2001.
- [27] P. Wehman and J. Bricout, Supported employment and natural supports: a critique analysis, in: *The impact of supported employment for people with significant disabilities: preliminary findings from the National Supported Employment Consortium*, G. Revell, K.J. Inge, D. Mank and P. Wehman, eds, VCU-RRTC on workplace supports, Richmond, VA., 1999a, pp. 215–228.
- [28] P. Wehman and J. Bricout, Supported employment: critical issues and new directions, in: The impact of supported employment for people with significant disabilities: preliminary findings from the National Supported Employment Consortium, G. Revell, K.J. Inge, D. Mank and P. Wehman, eds, VCU-RRTC on workplace supports, Richmond, VA., 1999b, pp. 1–24.
- [29] P. Wchman, S. Moon, J.M. Everson, W. Wood and J.M. Barcus. Transition from school to work. New challenges for youth with severe disabilities, Paul H. Brookes, Baltimore, Maryland, 1987.