

A SPANISH VERSION OF THE RAMAK INTEREST INVENTORY

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A Spanish interest inventory was built, based on Roe's (1956) classification of occupations. Following positive results on a Hebrew version –Ramak– it consists of 72 occupational titles with a "Y ? N" scale. The items are so built that each of Roe's eight occupational fields is represented by nine items, three for each of the professional-managerial, semi-professional and skilled workers' levels. The inventory was administered to 104 Spanish speaking immigrants to Israel. Results showed: (a) a field split half reliability of 0.78; (b) 93 per cent of the items have their highest correlation with their corresponding field; (c) the levels in seven out of the eight fields have an hierarchic order; and (d) the fields form the same circular arrangement which was found on the Hebrew version which supports its construct validity.

Un inventario de intereses en español fue construido, basado en la clasificación de Roe (1956). Como consecuencia de los resultados positivos obtenidos con la versión hebrea –Ramak– consiste de 72 nombres de ocupaciones con una escala del tipo "S ? N". Las items fueron construidos de tal forma que cada uno de los 8 campos ocupacionales de Roe es representado por nueve items – tres para cada uno de los siguientes niveles: profesional-ejecutivo, semiprofesional y trabajadores especializados. Este inventario fue administrado a 104 inmigrantes de habla española en Israel. Los resultados muestran: (a) una confiabilidad de 0,78 para los campos; (b) 93% de los items muestran sus correlaciones más altas con sus correspondientes campos; (c) los niveles en siete de los ocho campos presentan un orden jerárquico; y (d) los campos muestran la misma configuración circular que fue encontrada en la versión hebrea, lo cual apoya su validez de construcción.

The purpose of this study was to construct an interest inventory in Spanish to be used with Spanish-speaking counselees. Among the immigrants to Israel there are many who have either to choose an occupation or to make an occupational change. In many cases, the occupational decision has to be made during the early months, before the Hebrew language has been learned adequately. One may assume that an interest inventory suitable for these immigrants would also suit other Spanish-speaking counselees from similar cultural backgrounds.

Following the Ramak interest inventory (Meir Barak, 1974), the Spanish interest inventory is also based on Roe's (1956) two-dimensional classification of occupations. In this classification, all occupations are classified into eight occupational fields and into six occupational levels. The eight fields are: Sv (Service), Bu (Business), Or (Organization), Te (Technology), Od (Outdoor), Sc (Science), Gc

(General Cultural), and AE (Arts & Entertainment). The six levels are: Professional and managerial-I, Professional and managerial-II, semi-professional, skilled, semi-skilled, and unskilled. The first two levels were combined due to difficulty in discriminating between them in Israel, and the last two were omitted in the inventory since subjects rarely expressed vocational interest in them.

The adequacy of the Spanish version of the Ramak as an interest inventory was tested by: (a) item analysis in which the correlations of all items with their corresponding fields were compared with their correlations with other fields, (b) examination of its split-half reliability; and (c) structural analysis – comparison between its structure and the structure of the Hebrew version. It was hypothesized that the Spanish version of the Ramak interest inventory will show: (1) relatively high item-field correlations; (2) a split-half reliability close to the 0.76 found in the Hebrew version (Meir and Barak, 1974); (3) a hierarchic arrangement of the levels within each occupational field (e.g. level 1 will have a higher correlation with level 2 than with level 3); and (4) a circular configuration of the fields in the same arrangement as in the Hebrew version, namely: Service-Arts & Entertainment – Outdoor – Science – Technology – Business – Organization – General Cultural – Service – (Meir, 1973a).

Method

Subjects:

104 Spanish-speaking males and females were tested within 1-10 months after their immigration to Israel. All of them were 17 to 28 years old with twelve years of schooling behind them, so that they were potential applicants to all higher educational institutions in Israel. Eighty per cent of the subjects were either from Argentina or from Uruguay, and the rest were from Chile, Mexico or Bolivia.

Instrument:

The Spanish Ramak inventory consists of 72 occupational titles (see Table 1) with a "Y? N" (Yes, Doubtful, No) scale next to each of them. The items are literal translations of the Hebrew Ramak and therefore a few of them are linguistically awkward. These titles were replaced in the second stage. The test of an English translation of the Ramak was not yet completed, and therefore is not presented here. The items in the inventory were chosen so that each of Roe's (1956) eight occupational fields would be represented by nine items – three for the professional– managerial level of the field, three for the semi-professional level and three for the skilled workers level. By this method each of the 24 occupational clusters (combination of eight fields and three levels) is represented by three occupational titles.

The instructions required the subjects to read each occupational title and mark one of the Y ? N symbols according to the attractiveness of the occupation to them. The scoring method was: "Y" = 2, "?" = 1, and "N" = zero points. Thus, the score of each occupational cluster can range from zero to six, the field scores from zero to 18, and the level scores from zero to 48. The interpretation of the Ramak scores in counseling is illustrated by Meir (1973b).

Because of the simplicity and brevity of the Ramak interest inventory, as shown by Meir and Barak (1973), it was decided to test the reliability and construct validity of the Spanish version.

Table 1
The 72 Occupational Titles of the Spanish Ramak

Field	Level		
	I	II	III
Sv	Laborterapia Psicólogo Trabajador social	Consejero en bolsa de trabajo Atención a niños lisiados Mozo principal	Camarero Peluquero Agente de policía
Bu	Director de banco Economista Dueño de comercio grande	Comisionista de viviendas Mayorista (venta a comercios) Agente de seguros	Tendero Despachante vendedor Empleado de agencia de viajes
Or	Experto en eficiencia Director de división ministerio Titular de un ayuntamiento	Inspector de aduana Director de sucursal de correo Secretario de un ministerio	Empleado de informaciones Tenedor de libros Encargado de depósito
Te	Ingeniero de construcciones Ingeniero electrónico Ingeniero de producción	Técnico mecánico Técnico de radio Diseñador técnico	Cerrajero Mecánico de automóviles Electricista
Od	Experto en cría de animales Agrónomo Arquitecto de parques	Floricultor en una almáciga Oficial de marina Jefe de un renglón agrícola	Tractorista Cuidador de animales Pescador
Sc	Químico Investigador ciencias naturales Médico cirujano	Técnico de laboratorio Técnico de rayos Roentgen Técnico dental	Auxiliar instrumental médico Asistente de laboratorio Ayudante de farmacéutico
Gc	Profesor de humanidades Profesor de colegio secundario Abogado	Director de programas radiales Maestro de trabajos manuales Maestro de escuela primaria	Instructor en un club Corrector de pruebas de imprenta Ayudante de bibliotecario
AE	Dibujante Escenógrafo Director de orquesta	Ceramista artístico Dibujante gráfico Artista de un elenco	Instructor de deportes Artesano Acordeonista

Results

Suitable items should have higher correlations with their corresponding field than with any other field. Five items do not follow the required rule. Diseñador técnico, Corrector de pruebas de imprenta, Artista de un elenco, Tractorista, Consejero en bolsa de trabajo. In four out of these five items the item-field correlation is the second highest. The reason for the deviations in these items cannot be their awkward translation, since in the instructions subjects were told to cross out items which are not clear to them, and on these items the percentage of cross-outs was almost nonexistent (less than 1%). Sixty-seven items (93%) have their highest correlation with their corresponding field score ($p = 0.125$ for each item). A detailed table of intercorrelations can be obtained by request from the authors.

The split-half reliability of the Ramak version in Spanish was tested separately for each field by dividing its nine occupational titles into two groups of five and four occupations, respectively. As shown in Table 2, the median split-half reliability is 0.78. The corresponding figure for *ninth graders* in the Hebrew version is 0.69, as found by Meir and Barak (1974).

Table 2
SPLIT-HALF RELIABILITY COEFFICIENTS BY OCCUPATIONAL
FIELD OF SPANISH RAMAK

Field	Reliability	Field	Reliability
Service	.63	Outdoor	.75
Business	.72	Science	.90
Organization	.71	General-Cultural	.82
Technology	.82	Arts & Entertainment	.81

The suitability of the Spanish Ramak was further tested by considering the occupational structure derived from the scores of the 104 subjects on it. According to Roe (1956) and Meir (1973a), the three levels of each field should have a "simplex structure". In the case of Ramak this structure means that adjacent levels (1 and 2, 2 and 3) have higher intercorrelations than the nonadjacent levels (and 3).

Table 3 shows the arrangement of the levels in two fields: Service and Arts & Entertainment. The first represents the expected simplex structure, and the latter, the only deviation found from it. This deviation, however small, cannot be considered to be due to sampling error alone since it occurred exactly at the same place where the single deviation was found on the Hebrew original once on 220 boys and again on 296 girls (Meir, 1973a).

The field structure of the Spanish Ramak was tested by means of a Smallest Space Analysis (SSA-I). In this method, intercorrelations are represented in a geometrical form, so that the higher the intercorrelation between the variables, the smaller the distance between the points representing them. The configuration has to be understood as a map of two dimensions in which the coordinates do not have given directions. The map represents the relative magnitude of the correlations between the variables by the relative distances between them. The congruence between the intercorrelations and the interdistances is controlled by a coefficient of alienation (COA) — if it does not exceed 0.15 the geometrical configuration can be

considered to represent adequately the pattern of intercorrelations. Otherwise, a configuration with an additional dimension might be preferable. Further descrip-

Table 3

THE ARRANGEMENT OF LEVELS IN SERVICE AND IN ARTS & ENTERTAINMENT

Level	Service			Level	Arts & Entertainment		
	1	2	3		1	2	3
1	—	.40	.34	1	—	.71	.63
2	.40	—	.47	2	.71	—	.59
3	.34	.47	—	3	.63	.59	—

tion of this method can be found in Guttman (1965, 1966, 1968), Karni and Levin (1972), Levin and Karni (1970) and in Schlesinger and Guttman (1969).

The Smallest Space Analysis on the Spanish Ramak is shown in Figure 1. The coefficient of alienation for the two-dimensional representation of the eight field scores is 0.101, which means that no third dimension is required. The structure found has the following circular arrangement: Service — Arts & Entertainment — Outdoor — Science — Technology — Business — Organization — General Cultural — Service —. This arrangement fits exactly the findings on the Hebrew Ramak ($P < .005$) found by Meir (1973a). Thus, the construct validity of the Spanish version of the Ramak is also proved.

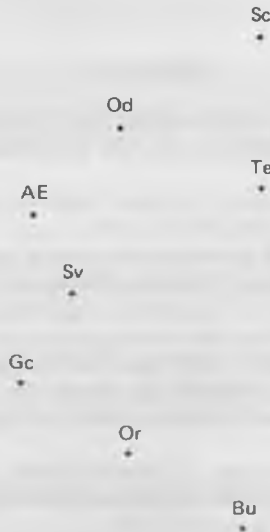


Figure 1
SMALLEST SPACE ANALYSIS OF
FIELD SCORES IN SPANISH RAMAK
($n = 104$, $COA = 0.101$)

Discussion

Following the verification of the reality and construct validity of the Spanish version of the Ramak as an interest inventory, a longitudinal study on its predictive validity is required. Until this project will become possible, the predictive validity of the Spanish version of the Ramak can be estimated through its similarity to the Hebrew version for which the predictive validity was proved (Barak & Meir, 1974).

There may be certain disadvantages in the use of occupational titles in the Ramak. As argued by Kuder (1970), counselees who are unfamiliar with the real content of the occupations cannot respond adequately to their names. In this respect there is some advantage in the SVIB (Strong, 1943; Campbell, 1966) and the SDS (Holland, 1973) which do not rely on responses given to occupational titles alone. On the other hand, the advantages of the Ramak with its simplicity and brevity, together with relative high reliability and validity can easily be seen.

Five items in the Spanish Ramak (7%) were found in the item analysis to be deficient. In a new version of the Spanish Ramak they were substituted by five different items (the earlier names appear in brackets). Técnico en refrigeración (Diseñador técnico); Ayudante de editor (Corrector de pruebas de imprenta); Cómico en un elenco (Artista de un elenco); Apicultor (cria de abejas); (Tractorista); and Masajista (Consejero en Bolsa de Trabajo). In all these cases, the new item belongs to the same field and level as the item which was replaced.

In spite of possible differences in the meaning of occupational titles in two different languages, the translation of the items in the Hebrew version served as a good starting point for the production of the Spanish version.

The next stage in the preparation of the Spanish interest inventory is its administration to various Spanish-speaking samples. The data gathered so far encourages further research.

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