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ABSTRACT

Research in second language learning supports the hypothesis that success in language learning is related to students' attitudes about the culture represented by the target language. This study tests the hypothesis by examining two Spanish programs at three high schools which have a large Mexican-American student enrollment. Declining enrollment in both programs and rejection of Spanish study by Mexican-American and others are encouraging a reevaluation of the model programs, their form, and educational objectives. Description of the experimental study includes: (1) a statement of the problem, (2) evaluation design, (3) presentation and summary of data, (4) recommendations and conclusions, and (5) a cultural opinionnaire. Extensive statistical data in the form of computer-printout sheets are included. (RL)

TUCSON PUBLIC SCHOOLS
DEPARTMENT OF LEARNING DEVELOPMENT
in cooperation with
RESEARCH

A Study to Determine the Relationship between Spanish
Listening Comprehension Proficiency and Cultural Attitudes
of Various Groups of Native and Non-Native Students of
the Spanish Language in Three High Schools: Cholla, Pueblo,
and Tucson, by John F. Bockman and Darleen A. Videen.

Table of Contents

	<u>Page</u>
A. Statement of the Problem.....	1
B. Evaluation Design.....	5
C. Presentation of the Data.....	7
D. Summary of the Data.....	12
E. Conclusions.....	13
F. Recommendations.....	15
G. Appendices.....	17
Cultural Opinionnaire.....	17
Tables of Data.....	19
a. for Cholla High School.....	19
b. for Pueblo High School.....	25
c. for Tucson High School.....	31

May, 1971

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A Study to Determine the Relationship between Spanish Listening Comprehension Proficiency and Cultural Attitudes of Various Groups of Native and Non-Native Students of the Spanish Language in Three High Schools, by John F. Bockman and Darleen A. Videen

A. Statement of the Problem

Prior to 1959, Tucson Public Schools offered a single standard program of Spanish language instruction to all interested students whether or not they had come from Spanish-speaking homes. In 1959, one school, Pueblo High School, developed and initiated a new Spanish program, one designed especially for those who had learned to speak and understand Spanish in their homes and neighborhoods. Eventually this new program came to be called the Spanish N program¹ to distinguish it from the regular Spanish program which continued and which still continues to be offered to all students.

Ten years later, in response to student request, a second high school initiated a Spanish N program in addition to its regular Spanish program. This was Tucson High School, which has had an increasing percentage of Mexican-American students in recent years.

1. Spanish for the Native Spanish-Speaking Student, Curriculum Guide. Curriculum Guide Committee, Foreign Language Department, Pueblo High School, Tucson Public Schools, Tucson, Arizona. This is an 82-page analysis of the first two years of the Spanish N program at Pueblo High School. The report is not available to the public at present. Plans are being made to submit parts of it to ERIC.

The Invisible Minority, The NEA-Tucson Survey on the Teaching of Spanish to the Spanish-Speaking. NEA, Department of Rural Education, 1966.

When Cholla High School opened in 1969 on the west side, it, too, initiated a Spanish II program to accommodate the large number of Mexican Americans in its student body.

Enrollment in the three schools at the beginning of the 1970-71 school year was as follows:

	<u>Total</u>	<u>Spanish-Surnamed</u>
Cholla	1277	35.9%
Pueblo	1901	68.9%
Tucson	2936	57.6%

It has been the philosophy of Tucson Public Schools, District No. 1, to meet, in so far as possible, the educational needs of students who elect to take either of the two Spanish language programs. As it has turned out, the Spanish II program is an option which many native-speaking students do not choose. Instead they enroll in regular Spanish classes. The reasons for this have not always been clear, and the question has been subject to conflicting explanation.

Jakobovits² cites several research studies which indicate that a student's proficiency in modern language seems to be related to his feelings about the culture represented by that language. It is suspected that the attitude of the Tucson Mexican American student toward his own culture may be related to his selection of one or the other Spanish program.

² Jakobovits, Leon A., Foreign Language Learning. A Psycholinguistic Analysis of the Issues. Newbury House Language Series, 1970.

The question, "Why do many Mexican American native speakers reject a program specifically designed for them?" is not the only issue. Only from 6% to 17% of Spanish surnamed students are enrolled in the first two years of either Spanish program:

Cholla	13%
Pueblo	17%
Tucson	6%

These statistics inevitably raise questions about the relevance of the native and regular Spanish programs in their present form.

The issues are further intensified by the fact that there appears to be a decline in native Spanish course enrollment over the past few years. This is difficult to demonstrate statistically because of a shifting of Mexican American school populations among Pueblo, Cholla, and Tucson in 1969, and by the addition of Spanish N programs to new schools. In the 1970-71 school year, however, 88 fewer students enrolled in Spanish 1N than had the year before.

The teachers of the Spanish N program have expressed the desire to reevaluate the program, its form, its objectives, and its relevance to the population served because of these three factors - 1) rejection of the Spanish N program in favor of the regular program by a sizable number of Mexican-American native speakers; 2) rejection of formal Spanish study altogether by a majority of Mexican-American native speakers; and 3) an apparent

decline in Spanish N enrollment in a period of intense Mexican-American cultural and language emphasis by elements of the Mexican-American community.

It should be noted that all of the teachers of the Spanish N program in all three high schools are native speaking Mexican-Americans who were raised in Southern Arizona. No non-native teachers are involved in the program.

In order to make decisions regarding the curriculum content and other aspects of the Spanish language programs, it seems necessary, first of all, to answer the following questions:

1. Is there a relationship between student attitudes and listening comprehension proficiency as measured by the Cultural Opinionnaire and the Spanish Placement Test?
2. Are there differences among the performances of students at Cholla, Pueblo, and Tucson High Schools on the Cultural Opinionnaire and the Spanish Placement Test?
3. Is there a difference between the performance of students enrolled in regular Spanish and Spanish for Native Speakers on the Cultural Opinionnaire and the Spanish Placement Test?
4. Is there a difference between the performance of native speakers enrolled in regular Spanish and native speakers enrolled in Spanish for Native Speakers on the Cultural Opinionnaire and the Spanish Placement Test?

B. Evaluation Design

The following instruments will be administered to the students who are enrolled in the first and second year Spanish language programs at Cholla, Pueblo, and Tucson High Schools.

1. Spanish Placement Test³ -- to measure their comprehension of the spoken language with a possible high score of 58.
2. Cultural Opinionnaire⁴ -- to measure their attitude toward the Mexican American culture with a scoring range from 20 (negative feelings) to 80 (positive feelings).

(Refer to Appendix.)

The variables to be considered in the analysis of the data are as follows:

1. Types of Spanish courses

2N -- First Year Spanish for Native Speakers

2R -- First Year Spanish (Regular)

4N -- Second Year Spanish for Native Speakers

4R -- Second Year Spanish (Regular)

(Spanish courses are numbered by semesters.)

2. Types of Students

1. Native speaker N -- student with or without Spanish surname whom teacher has identified as speaker of

Spanish from home and/or community. Native speaker N students

3. Developed by Ann Komadina, Foreign Language Consultant, Albuquerque Public Schools, Albuquerque, New Mexico.

4. An adaptation of "French Attitude Scale" as printed in Foreign Language Learning, A Psycholinguistic Analysis of the Issues, pp. 263-4.

are enrolled in Spanish for Native Speakers and are identified as 2N or 4N.

2. Native speaker R-N -- student with or without Spanish surname whom teacher has identified as speaker of Spanish from home and/or community. (Identical with type 1 by identification through teacher.) All such students are not enrolled in Spanish for Native Speakers, but are enrolled instead in regular Spanish classes, and are identified as 2R-N or 4R-N.
3. Non-native speaker R-R -- student, usually without a Spanish surname, whom teacher has identified as able neither to speak nor to understand Spanish to any reasonable degree. This category, which can include Spanish-surnamed students as well, is identified as 2R-R or 4R-R.
4. Total School Enrollments and Enrollment in Spanish Language Courses by Types of Students

Spanish Courses by Types of Students

School	Total Enrollment	No. of Spanish Surnamed Students	% of Students With Spanish Surnames	Native Speakers				Non-Native Speakers		% of All Spanish Surnamed Students Enrolled
				2R	4N	2R-N	4R-N	2R-R	4R-R	
Cholla	1277	459	35.9	23	18	14	6	68	34	13
Pueblo	1901	1310	68.9	151	57	7	5	15	13	17
Tucson	2936	1515	51.6	40	26	69	39	114	65	6

A Triple Classification of Analysis of Variance will be used to analyze the data.

C. Presentation of the Data

The coefficient of correlation between the performances of the students on the Spanish Placement Test and the Cultural Opinionnaire was .22 which shows a negligible amount of relationship.

The performances of the students on the Spanish Placement Test and the Cultural Opinionnaire with regard to each of the variables are presented in Tables I through III.

Table I

The performances of all students of First and Second Year Spanish on the Spanish Placement Test and the Cultural Opinionnaire at each of the schools

<u>Course Number</u>	<u>Spanish Placement Test</u> ⁵		
	<u>Cholla</u>	<u>Pueblo</u>	<u>Tucson</u>
2	20.20*	27.63	27.91
4	21.76*	28.01	30.11
	<u>Cultural Opinionnaire</u> ⁶		
2	56.40	57.23	56.98
4	59.06	57.81	57.49

* Significantly different at the .05 level of confidence.

The data show that, on the Spanish Placement Test, students who

5. Spanish Placement Test -- to measure comprehension of the spoken language with a possible high score of 58.

6. Cultural Opinionnaire -- to measure attitude toward the Mexican-American culture with a scoring range from 20 (negative feelings) to 80 (positive feelings).

are in Spanish 2 and 4 at Pueblo and Tucson High Schools performed significantly better than the students at Cholla High School.

On the other hand, there are no significant differences evidenced by the Cultural Opinionnaire.

Table II

The performances of students enrolled in Regular Spanish and Spanish for Native Speakers on the Spanish Placement Test and the Cultural Opinionnaire.

<u>Course Number</u>	<u>Spanish Placement Test</u>		
	<u>Regular</u>	<u>Regular but Native Speakers</u>	<u>Native</u>
2	16.81	27.56*	31.37**
4	18.34	27.92*	33.62**

<u>Course Number</u>	<u>Cultural Opinionnaire</u>		
	<u>Regular</u>	<u>Regular but Native Speakers</u>	<u>Native</u>
2	53.44	57.46*	59.71**
4	54.27	58.28*	61.82**

* Significantly different from regular (R-R) at the .05 level of confidence.

** Significantly different from both regular (R-R) and native speakers in regular classes (R-N).

The data in Table II show that the students who are native speakers enrolled in regular Spanish (R-N) performed significantly better on the Spanish Placement Test and expressed more positive feelings on the Cultural Opinionnaire than those students enrolled in regular Spanish who were not classified as native speakers by their teachers (R-R). Those students enrolled in Spanish for Native Speakers (N) performed significantly better on the Spanish Placement Test and expressed significantly more positive feelings on the Cultural Opinionnaire than native speakers enrolled in regular Spanish (R-N).

Table III

The performances of students enrolled in Regular Spanish and Spanish for Native Speakers on the Spanish Placement Test and the Cultural Opinionnaire by high school, considering native speaking ability

Spanish Placement Test

Course Identified by Type of Student

	2R-R	2R-N	2N	4R-R	4R-N	4N
Cholla	14.17	22.06	24.39*	15.83	25.33*	24.11*
Pueblo	18.67	32.22*	31.99*	19.39	26.20*	38.43**
Tucson	17.61	28.41*	37.73**	19.80	32.23*	38.31**

Cultural Opinionnaire

Cholla	53.31	55.29	60.61*	56.47	58.67	62.06*
Pueblo	53.40	58.78	59.50*	55.15	56.80	61.47*
Tucson	53.61	58.30	59.03*	51.19	59.36	61.92*

* Significantly different from regular at the .05 level of confidence.

** Significantly different from regular and regular but native speakers.

The data in Table III shows the following:

1. The first year students enrolled in Spanish for Native Speakers (2N) at the three high schools performed significantly better on the Spanish Placement Test than those students enrolled in regular Spanish who are not native speakers (2R-R). At Pueblo and Tucson High School, native

speakers enrolled in regular Spanish (2 R-N) performed significantly better than students enrolled in regular Spanish who are not native speakers (2R-R). At Tucson High School, the students enrolled in Spanish for Native Speakers (2N) performed significantly better than native speakers in the regular program (2R-N).

2. The second year students who are native speakers enrolled in regular Spanish at all three high schools (4R-N), performed significantly better on the Spanish Placement Test than students enrolled in regular Spanish who are not native speakers (4R-R). At Pueblo and Tucson High Schools the students enrolled in Spanish for Native Speakers (4N) performed significantly better than those students who are native speakers and enrolled in regular Spanish (4R-N).
3. The performance of students on the Cultural Opinionnaire shows that both first and second year students enrolled in Spanish for Native Speakers (2N and 4N) at all three schools expressed significantly more positive feelings on the Cultural Opinionnaire than those students enrolled in regular Spanish who are not native speakers (2R-R and 4R-R). There were no significant differences between the performances of students who are native speakers and enrolled in regular Spanish (2R-N and 4R-N) and those students enrolled in Spanish for Native Speakers (2N and 4N).

D. Summary of the Data

1. There is a negligible relationship between the attitudes of all students as expressed on the Cultural Opinionnaire and their comprehension of the spoken language as measured by the Spanish Placement Test.
2. Native speakers enrolled in regular Spanish (R-N) performed significantly better on the Spanish Placement Test and expressed significantly more positive feelings about the culture on the Cultural Opinionnaire than students who were not classified as native speakers (R-R).
3. Students enrolled in Spanish for Native Speakers (N) performed significantly better on the Spanish Placement Test and expressed significantly more positive feelings about the culture on the Cultural Opinionnaire than the native speakers enrolled in regular Spanish (R-N).
4. Both first and second year students at Pueblo and Tucson High Schools performed significantly better on the Spanish Placement Test than the students at Cholla High School.
5. There were no significant differences in attitudes between schools as measured by the Cultural Opinionnaire.
6. First and second year Spanish students enrolled in Spanish for Native Speakers (2N and 4N) at all three high schools performed significantly better on the Spanish Placement Test and expressed more positive feelings on the Cultural Opinionnaire than those students enrolled in regular Spanish who are

not native speakers (2R-R and 4R-R).

7. First and second year Spanish students at Tucson High School, and second year Spanish students at Pueblo, enrolled in Spanish for Native Speakers (2N and 4N), performed significantly better on the Spanish Placement Test than students enrolled in regular Spanish who were classified as native speakers (2R-N and 4R-N).
8. There were no significant differences in the positive feelings expressed on the Cultural Opinionnaire between the students enrolled in Spanish for Native Speakers (N) and native speakers enrolled in regular Spanish (R-N).

E. Conclusions

1. Differences in the Spanish listening comprehension proficiency of the various Mexican American student groups tested appear to be related in part to the socio-economic characteristics of each group within the total Tucson Mexican American society. It would seem that higher Spanish listening comprehension proficiency may be associated with lower socio-economic level and vice-versa. This conclusion is derived from evidence of significantly lower listening comprehension proficiency among Cholla students. These groups live in the Menlo Park, White, Lynn, and Vesey attendance areas in which reputedly reside Mexican American families of the middle class. To obviate a misinterpretation, it must be emphasized at this point that the listening comprehension proficiency of native

speakers and their attitudes toward their culture are developed in the home and in the community. Formal education can modify these but slowly. Thus, the lesser listening comprehension proficiency of Cholla students reflects home and neighborhood conditions rather than characteristics of the Cholla Spanish programs.

2. It would seem that native speakers of Spanish who do not enroll for native courses are generally correct in perceiving their relative unreadiness for these courses. This is demonstrated by their lower listening comprehension proficiency. Their reluctance to enroll in the native courses should probably be accepted as reflecting this awareness and should not be attributed to attitude, laziness, "desire for easy credit," or some other motive.
3. Since there is no significant difference between Pueblo and Tucson High School mean scores in listening comprehension and attitudes, some other factor or factors must account for the discrepancy in Mexican-American Spanish language enrollment (Pueblo - 17%, Tucson - 6%).
4. There appear to be certain significant differences in the Mexican-American population served by Cholla High School as compared with that served by the other two schools. As has been mentioned previously, the population lives in areas reputed to

contain Mexican-American families of the middle class. These differences may be significant enough to affect markedly the enrollment size and characteristics of a Spanish Native program at Cholla. (See Recommendation 7.)

5. The statistics seem to raise serious questions about the causes of the heavy enrollment decrement from Spanish 2N to Spanish 4N, because proficiency and attitude seem to be uniformly high from one year of instruction to the next.

F. Recommendations

1. Certain differences in group response to attitude items appear to be related to listening comprehension proficiency and possibly to socio-economic characteristics. Because of the small sampling of some groups, however, such conclusions are statistically unreliable and are not reported here. If such differences do exist, they would seem to observe the pattern: R-R--favorable; R-N--more favorable; N--most favorable. It should be noted that all groups tend to reflect positive attitudes toward specific items in Mexican American culture.
2. The value of the study might be enhanced if it were repeated using the entire Mexican American student population of the secondary schools of Tucson Public Schools, especially for comparison of attitudes with degrees of listening proficiency.
3. For comparative purposes, the Attitude Opinionnaire should

perhaps be administered widely in the east-side high schools which have very small Mexican American populations to measure the effect of Anglo proximity to Mexican Americans as a variable in Anglo attitude.

4. Revision of the Spanish N program should proceed cautiously with the new knowledge gained because the data so far analyzed are of limited validity.
5. Each school should carefully analyze its Spanish N program from the standpoint of its relevance to its own students, disregarding standards of the past if these are being rejected by today's Mexican American youth. It is suggested that teachers rethink carefully their past assumptions concerning "what students need."
6. A coordinated program may be less needed than a wide variety of programs to fit needs of differing groups. The Mexican American student is obviously not a uniform type.
7. More accurate socio-economic data need to be obtained for the different barrio areas.
8. The location of new immigrants and their subsequent dispersal throughout the Spanish-speaking neighborhoods needs to be traced to determine the effects of immigration on listening proficiency, attitudes, and persistence of traditional cultural values.
9. Mexican American parents should be surveyed for their views on all matters touched upon in this study. The Model Cities program may be of assistance in arranging for this sort of investigation.

Teachers of Spanish should find some way to establish a two-way communication with a broad spectrum of the local Mexican-American community, including students.

10. Statistics show an extensive rejection of formal Spanish study by from 80% to 90% of the Mexican-American student population. It is imperative that the profession discover whether this rejection is supported in any way by the Mexican-American community, especially parents, and if so, why. It is submitted that the profession must be sensitive and responsive to the feelings of the community, not simply to the expressed views of individual spokesmen of the community.
11. This study with all its statistical data should be submitted to Dr. Leon Jakobovits for criticisms and recommendations in view of his larger interest in the context into which this study fits. Dr. Jakobovits invites the sharing of such data. (See page 262 of Foreign Language Learning.)

* * * * *

This study was a joint effort of the Department of Learning Development and Research.

LANGUAGE OPINIONNAIRE

The following statements are ones with which many people agree, and many people disagree. There are no right or wrong answers since many people have different opinions. Please indicate your agreement or disagreement by choosing the number on your answer sheet from the following scale which best describes your feelings about each statement. Start at number 101 on your answer sheet.

1. Disagree very much
2. Disagree somewhat
3. Agree somewhat
4. Agree very much

1. The Mexicans who live in this country have made a great contribution to the richness of our society.
2. The more I get to know Spanish-speaking people, the more I want to be able to speak their language.
3. Spanish-speaking people are very democratic in their politics and philosophy.
4. Spanish-speaking people have produced outstanding artists and writers.
5. By bringing the old Mexican folkways to our society, they have contributed greatly to our way of life.
6. Spanish-speaking people's undying faith in their religious beliefs is a positive force in this modern world.
7. The Spanish-speaking person has every reason to be proud of his race and traditions.
8. If America should lose the influence of Spanish-speaking people it would indeed be a deep loss.
9. Spanish-speaking peoples are much more polite than many Americans.
10. We can learn better ways of cooking, serving food, and entertaining from the Spanish-speaking people.
11. Spanish-speaking people are very dependable.
12. American children can learn much of value by associating with Spanish-speaking playmates.

13. Spanish-speaking people set a good example for us by their family life.
14. Spanish-speaking people are generous and hospitable to strangers.
15. Americans should make a greater effort to meet more Spanish-speaking people.
16. It is wrong to try to force the Spanish-speaking person to become completely American in his habits.
17. If I had my way I would rather live in Mexico than in this country.
18. Tucson would be a much better city if more Spanish-speaking people would move here.
19. The Spanish-speaking people show great understanding in the way they adjust to the American way of life.
20. In general, American industry tends to benefit from the employment of Spanish-speaking people.

ITEM NO.	RIGHT WHEN APPLICABLE		WRONG		DID NOT RESPOND		1		2		3		4		5	
	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)
101	3 (0)	0 (0)	0 (0)	0 (0)	0 (0)	5 (7)	25 (37)	33 (49)	5 (7)	25 (37)	33 (49)	5 (7)	25 (37)	33 (49)	5 (7)	0 (0)
102	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	4 (6)	8 (12)	25 (37)	4 (6)	8 (12)	25 (37)	4 (6)	8 (12)	25 (37)	4 (6)	0 (0)
103	0 (0)	0 (0)	0 (0)	0 (0)	1 (1)	5 (7)	26 (38)	31 (46)	5 (7)	26 (38)	31 (46)	5 (7)	26 (38)	31 (46)	5 (7)	0 (0)
104	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (4)	20 (29)	31 (46)	3 (4)	20 (29)	31 (46)	3 (4)	20 (29)	31 (46)	14 (21)	0 (0)
105	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	6 (9)	17 (25)	31 (46)	6 (9)	17 (25)	31 (46)	6 (9)	17 (25)	31 (46)	14 (21)	0 (0)
106	0 (0)	0 (0)	0 (0)	0 (0)	2 (3)	5 (7)	19 (28)	23 (34)	5 (7)	19 (28)	23 (34)	5 (7)	19 (28)	23 (34)	18 (26)	1 (1)
107	0 (0)	0 (0)	0 (0)	0 (0)	2 (3)	3 (4)	1 (1)	17 (25)	3 (4)	1 (1)	17 (25)	3 (4)	1 (1)	17 (25)	44 (65)	1 (1)
108	0 (0)	0 (0)	0 (0)	0 (0)	2 (3)	8 (12)	20 (29)	25 (37)	8 (12)	20 (29)	25 (37)	8 (12)	20 (29)	25 (37)	12 (19)	1 (1)
109	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	10 (15)	31 (46)	15 (22)	10 (15)	31 (46)	15 (22)	10 (15)	31 (46)	15 (22)	12 (18)	0 (0)
110	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	6 (9)	15 (22)	31 (46)	6 (9)	15 (22)	31 (46)	6 (9)	15 (22)	31 (46)	16 (24)	0 (0)
111	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	8 (12)	21 (31)	32 (47)	8 (12)	21 (31)	32 (47)	8 (12)	21 (31)	32 (47)	7 (10)	0 (0)
112	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (3)	17 (25)	35 (51)	2 (3)	17 (25)	35 (51)	2 (3)	17 (25)	35 (51)	14 (21)	0 (0)
113	0 (0)	0 (0)	0 (0)	0 (0)	3 (4)	3 (4)	26 (38)	32 (47)	3 (4)	26 (38)	32 (47)	3 (4)	26 (38)	32 (47)	4 (6)	0 (0)
114	0 (0)	0 (0)	0 (0)	0 (0)	2 (3)	4 (6)	22 (32)	32 (47)	4 (6)	22 (32)	32 (47)	4 (6)	22 (32)	32 (47)	7 (10)	1 (1)
115	0 (0)	0 (0)	0 (0)	0 (0)	4 (5)	5 (7)	9 (13)	32 (47)	6 (9)	9 (13)	32 (47)	6 (9)	9 (13)	32 (47)	19 (28)	0 (0)
116	0 (0)	0 (0)	0 (0)	0 (0)	4 (5)	43 (63)	10 (15)	16 (24)	5 (7)	9 (13)	16 (24)	5 (7)	9 (13)	16 (24)	32 (47)	2 (3)
117	0 (0)	0 (0)	0 (0)	0 (0)	3 (4)	17 (25)	28 (41)	22 (32)	43 (63)	10 (15)	5 (7)	5 (7)	7 (10)	7 (10)	7 (10)	0 (0)
118	0 (0)	0 (0)	0 (0)	0 (0)	3 (4)	6 (9)	22 (32)	26 (38)	17 (25)	28 (41)	13 (19)	13 (19)	7 (10)	7 (10)	7 (10)	0 (0)
119	0 (0)	0 (0)	0 (0)	0 (0)	5 (7)	9 (13)	18 (26)	26 (38)	6 (9)	22 (32)	22 (32)	6 (9)	13 (19)	13 (19)	13 (19)	0 (0)
120	0 (0)	0 (0)	0 (0)	0 (0)	4 (5)	9 (13)	18 (26)	26 (38)	9 (13)	18 (26)	26 (38)	9 (13)	18 (26)	26 (38)	11 (16)	0 (0)



T.P.S. RESEARCH AND DEVELOPMENT, DIV. OF M. AND E. ITEM ANALYSIS SERVICE
 T CHOLLA 70-71S 615 2 RN
 ROCKMANS SPANISH PROJECT ITEMS NO.101- 120 NUM. OF PEOPLE 14

ITEM NO.	RIGHT WHEN APPLICABLE		DID NOT RESPOND	NUM. OF PEOPLE				
	FREQ(PCNT)	FREQ(PCNT)		1	2	3	4	5
101	0 (0)	0 (0)	0 (0)	2 (14)	2 (14)	5 (36)	5 (36)	0 (0)
102	0 (0)	0 (0)	0 (0)	2 (14)	1 (7)	4 (29)	7 (50)	0 (0)
103	0 (0)	0 (0)	0 (0)	2 (14)	5 (36)	5 (36)	2 (14)	0 (0)
104	0 (0)	0 (0)	0 (0)	0 (0)	2 (14)	7 (50)	5 (36)	0 (0)
105	0 (0)	0 (0)	0 (0)	0 (0)	3 (21)	6 (43)	5 (36)	0 (0)
107	0 (0)	0 (0)	0 (0)	1 (7)	4 (29)	1 (7)	8 (57)	0 (0)
109	0 (0)	0 (0)	0 (0)	1 (7)	0 (0)	1 (7)	12 (86)	0 (0)
103	0 (0)	0 (0)	0 (0)	4 (29)	1 (7)	4 (29)	5 (36)	0 (0)
110	0 (0)	0 (0)	0 (0)	3 (21)	6 (43)	1 (7)	4 (29)	0 (0)
111	0 (0)	0 (0)	0 (0)	0 (0)	1 (7)	6 (43)	7 (50)	0 (0)
112	0 (0)	0 (0)	0 (0)	2 (14)	5 (36)	4 (29)	3 (21)	0 (0)
113	0 (0)	0 (0)	0 (0)	0 (0)	2 (14)	5 (36)	7 (50)	0 (0)
114	0 (0)	0 (0)	1 (7)	0 (0)	6 (43)	4 (29)	3 (21)	0 (0)
115	0 (0)	0 (0)	1 (7)	2 (14)	3 (21)	4 (29)	4 (29)	0 (0)
116	0 (0)	0 (0)	1 (7)	1 (7)	2 (14)	5 (36)	5 (36)	0 (0)
117	0 (0)	0 (0)	1 (7)	7 (50)	2 (14)	3 (21)	4 (29)	0 (0)
119	0 (0)	0 (0)	1 (7)	3 (21)	9 (64)	1 (7)	3 (21)	0 (0)
119	0 (0)	0 (0)	1 (7)	1 (7)	3 (21)	5 (36)	0 (0)	0 (0)
120	0 (0)	0 (0)	2 (14)	2 (14)	4 (29)	4 (29)	4 (29)	0 (0)



ITEM NO.	RIGHT	WRONG	DID NOT RESPOND	1	2	3	4	5
FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)
101	2 (0)	2 (0)	0 (0)	1 (4)	4 (17)	9 (39)	9 (39)	0 (0)
102	2 (0)	0 (0)	0 (0)	1 (4)	2 (9)	8 (35)	12 (52)	0 (0)
103	2 (0)	2 (0)	0 (0)	3 (13)	7 (30)	11 (48)	2 (9)	0 (0)
104	0 (0)	0 (0)	0 (0)	0 (0)	3 (13)	9 (39)	11 (48)	0 (0)
105	2 (0)	0 (0)	0 (0)	1 (4)	3 (13)	8 (35)	11 (48)	0 (0)
106	2 (0)	0 (0)	0 (0)	0 (0)	5 (22)	8 (35)	9 (39)	1 (4)
107	2 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	22 (96)	1 (4)
108	0 (0)	0 (0)	0 (0)	1 (4)	2 (9)	7 (30)	12 (52)	1 (4)
109	2 (0)	2 (0)	0 (0)	3 (13)	7 (30)	9 (39)	4 (17)	0 (0)
110	2 (0)	2 (0)	0 (0)	0 (0)	1 (4)	15 (65)	7 (30)	0 (0)
111	0 (0)	0 (0)	1 (4)	1 (4)	8 (35)	8 (35)	5 (22)	0 (0)
112	0 (0)	0 (0)	1 (4)	0 (0)	2 (9)	9 (39)	11 (48)	0 (0)
113	2 (0)	0 (0)	1 (4)	0 (0)	4 (17)	12 (52)	6 (26)	0 (0)
114	2 (0)	2 (0)	1 (4)	1 (4)	5 (26)	8 (35)	7 (30)	0 (0)
115	2 (0)	0 (0)	1 (4)	0 (0)	1 (4)	8 (35)	13 (57)	0 (0)
116	0 (0)	0 (0)	1 (4)	3 (13)	1 (4)	2 (9)	16 (70)	0 (0)
117	0 (0)	0 (0)	1 (4)	10 (43)	5 (22)	3 (13)	3 (13)	1 (4)
118	2 (0)	2 (0)	2 (9)	2 (9)	7 (30)	9 (39)	3 (13)	0 (0)
119	2 (0)	2 (0)	1 (4)	0 (0)	7 (30)	10 (43)	5 (22)	0 (0)
120	2 (0)	0 (0)	2 (9)	1 (4)	4 (17)	12 (52)	4 (17)	0 (0)



ITEM NO.	RIGHT WHEN APPLICABLE		DID NOT RESPOND	NUM. OF PEOPLE				
	FREQ(PCNT)	FREQ(PCNT)		1	2	3	4	5
101	3 (0)	3 (0)	0 (0)	1 (3)	3 (9)	14 (41)	16 (47)	0 (0)
102	3 (0)	0 (0)	0 (0)	2 (6)	2 (6)	11 (32)	19 (56)	0 (0)
103	0 (0)	0 (0)	0 (0)	2 (6)	8 (24)	18 (53)	5 (15)	1 (3)
104	0 (0)	0 (0)	0 (0)	1 (3)	5 (15)	14 (41)	14 (41)	0 (0)
105	0 (0)	0 (0)	0 (0)	4 (12)	4 (12)	12 (35)	14 (41)	0 (0)
106	0 (0)	0 (0)	0 (0)	3 (9)	9 (26)	14 (41)	8 (24)	0 (0)
107	0 (0)	0 (0)	0 (0)	2 (6)	0 (0)	4 (12)	28 (82)	0 (0)
108	0 (0)	0 (0)	0 (0)	5 (15)	3 (9)	13 (38)	13 (38)	0 (0)
109	0 (0)	0 (0)	0 (0)	5 (15)	10 (29)	11 (32)	7 (21)	1 (3)
110	0 (0)	0 (0)	0 (0)	1 (3)	4 (12)	20 (59)	9 (26)	0 (0)
111	0 (0)	0 (0)	1 (3)	2 (6)	9 (26)	17 (50)	4 (12)	1 (3)
112	0 (0)	0 (0)	0 (0)	1 (3)	7 (21)	13 (38)	12 (35)	1 (3)
113	0 (0)	0 (0)	2 (6)	2 (6)	16 (47)	11 (32)	2 (6)	1 (3)
114	0 (0)	0 (0)	2 (6)	2 (6)	9 (26)	13 (38)	7 (21)	1 (3)
115	0 (0)	0 (0)	2 (6)	1 (3)	5 (15)	12 (35)	14 (41)	0 (0)
116	0 (0)	0 (0)	2 (6)	1 (3)	4 (12)	8 (24)	19 (56)	0 (0)
117	0 (0)	0 (0)	2 (6)	22 (65)	4 (12)	1 (3)	4 (12)	1 (3)
118	0 (0)	0 (0)	1 (3)	9 (26)	17 (50)	5 (15)	1 (3)	1 (3)
119	0 (0)	0 (0)	2 (6)	2 (6)	11 (32)	14 (41)	5 (15)	0 (0)
120	0 (0)	0 (0)	2 (6)	4 (12)	7 (21)	16 (47)	5 (15)	0 (0)



ITEM NO.	RIGHT WHEN APPLICABLE		DID NOT RESPOND		1		2		3		4		5	
	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)
101	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (17)	3 (50)	2 (33)	0 (0)	0 (0)				
102	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (50)	3 (50)	0 (0)	0 (0)				
103	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (17)	4 (67)	1 (17)	0 (0)	0 (0)				
104	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	4 (67)	2 (33)	0 (0)	0 (0)				
105	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (33)	1 (17)	3 (50)	0 (0)	0 (0)				
106	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (50)	3 (50)	0 (0)	0 (0)				
107	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	6 (100)	0 (0)	0 (0)				
108	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (17)	4 (67)	1 (17)	0 (0)	0 (0)				
109	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (17)	4 (67)	1 (17)	0 (0)	0 (0)				
110	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (17)	2 (33)	3 (50)	0 (0)	0 (0)				
111	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (50)	3 (50)	0 (0)	0 (0)	0 (0)				
112	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (17)	4 (67)	1 (17)	0 (0)	0 (0)				
113	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (33)	4 (67)	0 (0)	0 (0)	0 (0)				
114	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (17)	5 (83)	0 (0)	0 (0)	0 (0)				
115	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (17)	5 (83)	0 (0)	0 (0)	0 (0)				
116	0 (0)	0 (0)	0 (0)	0 (0)	1 (17)	0 (0)	2 (33)	3 (50)	0 (0)	0 (0)				
117	0 (0)	0 (0)	0 (0)	0 (0)	2 (33)	4 (67)	0 (0)	0 (0)	0 (0)	0 (0)				
118	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	6 (100)	0 (0)	0 (0)	0 (0)	0 (0)				
119	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	4 (67)	1 (17)	1 (17)	0 (0)	0 (0)				
120	0 (0)	0 (0)	0 (0)	0 (0)	1 (17)	1 (17)	4 (67)	0 (0)	0 (0)	0 (0)				



ITEMS NO. 101- 120 NUM. OF PEOPLE 18

ITEM NO.	RIGHT WHEN APPLICABLE		WRONG		DID NOT RESPOND		NUM. OF PEOPLE				
	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	1	2	3	4	5
101	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (17)	7 (39)	8 (44)	0 (0)
102	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	4 (22)	6 (33)	8 (44)	0 (0)
103	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	6 (33)	10 (56)	1 (6)	0 (0)
104	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	1 (6)	0 (0)	4 (22)	5 (28)	7 (39)	1 (6)
105	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	1 (6)	0 (0)	1 (6)	10 (56)	5 (28)	1 (6)
106	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	1 (6)	1 (6)	4 (22)	5 (28)	7 (39)	0 (0)
107	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	1 (6)	0 (0)	0 (0)	1 (6)	15 (83)	1 (6)
108	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	1 (6)	1 (6)	2 (11)	4 (22)	8 (44)	2 (11)
109	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	5 (28)	10 (56)	3 (17)	0 (0)
110	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (11)	7 (39)	9 (50)	0 (0)
111	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	4 (22)	11 (61)	3 (17)	0 (0)
112	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	11 (61)	6 (33)	0 (0)
113	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (11)	11 (61)	5 (28)	0 (0)
114	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	4 (22)	8 (44)	5 (28)	0 (0)
115	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (17)	8 (44)	5 (28)	2 (11)
116	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (11)	3 (17)	12 (67)	1 (6)
117	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	8 (44)	3 (17)	4 (22)	3 (17)	0 (0)
118	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	8 (44)	7 (39)	2 (11)	0 (0)
119	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	5 (28)	10 (56)	3 (17)	0 (0)
120	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	3 (17)	12 (67)	2 (11)	0 (0)

ITEM NO.	RIGHT WHEN APPLICABLE		WRONG		DID NOT RESPOND	NUM. OF PEOPLE				
	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)		1	2	3	4	5
101	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	7 (47)	7 (47)	1 (7)	0 (0)
102	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	4 (27)	3 (20)	8 (53)	0 (0)
103	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (13)	4 (27)	7 (47)	2 (13)	0 (0)
104	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (13)	7 (47)	6 (40)	0 (0)
105	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (20)	5 (33)	6 (40)	1 (7)	0 (0)
106	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (20)	3 (20)	5 (33)	4 (27)	0 (0)
107	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (7)	1 (7)	3 (20)	10 (67)	0 (0)
108	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (13)	2 (13)	6 (40)	5 (33)	0 (0)
109	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	6 (40)	5 (33)	2 (13)	2 (13)	0 (0)
110	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	5 (33)	7 (47)	3 (20)	0 (0)
111	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (7)	11 (73)	3 (20)	0 (0)	0 (0)
112	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (7)	1 (7)	5 (33)	7 (47)	1 (7)
113	0 (0)	0 (0)	0 (0)	1 (7)	1 (7)	1 (7)	6 (40)	5 (33)	2 (13)	0 (0)
114	0 (0)	0 (0)	0 (0)	1 (7)	1 (7)	1 (7)	4 (27)	7 (47)	2 (13)	0 (0)
115	0 (0)	0 (0)	0 (0)	1 (7)	1 (7)	0 (0)	1 (7)	8 (53)	5 (33)	0 (0)
116	0 (0)	0 (0)	0 (0)	2 (13)	1 (7)	1 (7)	1 (7)	4 (27)	7 (47)	0 (0)
117	0 (0)	0 (0)	0 (0)	1 (7)	1 (7)	9 (60)	3 (20)	2 (13)	0 (0)	0 (0)
118	0 (0)	0 (0)	0 (0)	1 (7)	1 (7)	4 (27)	7 (47)	3 (20)	6 (40)	0 (0)
119	0 (0)	0 (0)	0 (0)	1 (7)	1 (7)	1 (7)	2 (13)	7 (47)	4 (27)	0 (0)
120	0 (0)	0 (0)	0 (0)	1 (7)	1 (7)	0 (0)	4 (27)	5 (33)	5 (33)	0 (0)

T.P.S. RESEARCH AND DEVELOPMENT, DIV. OF H. AND E. ITFM ANALYSIS SERVICE
 1 PUP-313 70-715 630
 ROCKMAN'S SPANISH PROJECT

ITEMS NO. 101- 120 NUM. OF PEOPLE 7

ITEM NO.	RIGHT WHEN APPLICABLE		DID NOT RESPOND	NUM. OF PEOPLE				
	FREQ(PCNT)	FREQ(PCNT)		1	2	3	4	5
101	0 (0)	0 (0)	0 (0)	0 (0)	2 (29)	5 (71)	0 (0)	0 (0)
102	0 (0)	0 (0)	0 (0)	2 (29)	0 (0)	1 (14)	4 (57)	0 (0)
103	0 (0)	0 (0)	0 (0)	1 (14)	3 (43)	3 (43)	0 (0)	0 (0)
104	0 (0)	0 (0)	0 (0)	0 (0)	2 (29)	2 (29)	3 (43)	0 (0)
105	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	4 (57)	3 (43)	0 (0)
106	0 (0)	0 (0)	0 (0)	1 (14)	1 (14)	3 (43)	2 (29)	0 (0)
107	0 (0)	0 (0)	0 (0)	1 (14)	0 (0)	1 (14)	5 (71)	0 (0)
108	0 (0)	0 (0)	0 (0)	0 (0)	2 (29)	2 (29)	3 (43)	0 (0)
109	0 (0)	0 (0)	0 (0)	2 (29)	1 (14)	3 (43)	0 (0)	1 (14)
110	0 (0)	0 (0)	0 (0)	0 (0)	1 (14)	2 (29)	4 (57)	0 (0)
111	0 (0)	0 (0)	0 (0)	0 (0)	3 (43)	3 (43)	0 (0)	0 (0)
112	0 (0)	0 (0)	0 (0)	1 (14)	0 (0)	5 (71)	1 (14)	0 (0)
113	0 (0)	0 (0)	0 (0)	1 (14)	1 (14)	3 (43)	2 (29)	0 (0)
114	0 (0)	0 (0)	0 (0)	0 (0)	2 (29)	4 (57)	1 (14)	0 (0)
115	0 (0)	0 (0)	0 (0)	1 (14)	0 (0)	1 (14)	5 (71)	0 (0)
116	0 (0)	0 (0)	0 (0)	1 (14)	1 (14)	2 (29)	3 (43)	0 (0)
117	0 (0)	0 (0)	0 (0)	6 (86)	0 (0)	1 (14)	0 (0)	0 (0)
118	0 (0)	0 (0)	0 (0)	0 (0)	3 (43)	2 (29)	2 (29)	0 (0)
119	0 (0)	0 (0)	0 (0)	0 (0)	2 (29)	5 (71)	0 (0)	0 (0)
120	0 (0)	0 (0)	1 (14)	2 (29)	2 (29)	4 (57)	0 (0)	0 (0)

T.P.S. RESEARCH AND DEVELOPMENT, DIV. OF M. AND E. ITEM ANALYSIS SERVICE
 T PUEBLO 70-715 630
 ROCKAWAY SPANISH PROJECT ITEMS NO.101- 120 NUM. OF PEOPLE 151

ITEM NO.	RIGHT WHEN APPLICABLE	WOMEN	DID NOT RESPOND	1	2	3	4	5
FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)
101	3 (0)	3 (0)	2 (1)	17 (11)	30 (20)	71 (47)	31 (21)	0 (0)
102	3 (0)	0 (0)	4 (3)	6 (4)	13 (9)	44 (29)	94 (55)	3 (0)
103	0 (0)	0 (0)	5 (3)	14 (9)	50 (33)	59 (39)	23 (15)	0 (0)
104	0 (0)	0 (0)	3 (2)	9 (6)	23 (15)	63 (42)	53 (35)	0 (0)
105	0 (0)	0 (0)	4 (3)	5 (3)	28 (19)	64 (42)	49 (32)	1 (1)
106	0 (0)	0 (0)	3 (2)	8 (5)	33 (22)	44 (29)	50 (33)	1 (1)
107	0 (0)	0 (0)	2 (1)	3 (2)	5 (3)	11 (7)	120 (78)	2 (1)
108	0 (0)	0 (0)	0 (0)	4 (3)	20 (13)	54 (36)	73 (48)	0 (0)
109	0 (0)	0 (0)	3 (2)	15 (10)	43 (28)	57 (38)	33 (22)	0 (0)
110	0 (0)	0 (0)	2 (1)	6 (4)	22 (15)	65 (43)	56 (37)	0 (0)
111	0 (0)	0 (0)	1 (1)	10 (7)	34 (23)	80 (53)	26 (17)	0 (0)
112	0 (0)	0 (0)	1 (1)	8 (5)	17 (11)	76 (50)	49 (32)	0 (0)
113	0 (0)	0 (0)	3 (2)	8 (5)	24 (16)	83 (55)	33 (22)	0 (0)
114	0 (0)	0 (0)	5 (3)	6 (4)	20 (13)	65 (43)	47 (31)	0 (0)
115	0 (0)	0 (0)	2 (1)	4 (3)	12 (8)	61 (40)	71 (47)	1 (1)
116	0 (0)	0 (0)	1 (1)	19 (13)	11 (7)	15 (10)	105 (70)	0 (0)
117	0 (0)	0 (0)	7 (5)	65 (43)	33 (22)	25 (17)	20 (13)	1 (1)
118	0 (0)	0 (0)	4 (3)	10 (7)	55 (36)	59 (38)	23 (15)	1 (1)
119	0 (0)	0 (0)	5 (3)	11 (7)	33 (22)	69 (46)	33 (22)	0 (0)
120	0 (0)	0 (0)	6 (4)	10 (7)	24 (16)	73 (48)	30 (20)	0 (0)

T.P.S. RESEARCH AND DEVELOPMENT, DIV. OF H. AND E. ITEM ANALYSIS SERVICE
 T PIERLO 70-715 630 4 RR
 POPKAY'S SPANISH PROJECT ITEMS NO.101- 120 NUM. OF PEOPLE 13

ITEM NO.	RIGHT WHEN APPLICABLE		WRONG		DID NOT RESPOND		1		2		3		4		5	
	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)
101	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	1 (3)	3 (23)	4 (31)	4 (31)	4 (31)	4 (31)	4 (31)	4 (31)	0 (0)		
102	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	3 (23)	3 (23)	3 (23)	3 (23)	3 (23)	3 (23)	6 (46)	0 (0)		
103	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	1 (8)	2 (15)	2 (15)	2 (15)	8 (62)	2 (15)	2 (15)	0 (0)		
104	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	9 (69)	4 (31)	4 (31)	0 (0)		
105	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	2 (15)	2 (15)	2 (15)	2 (15)	4 (31)	5 (38)	5 (38)	1 (8)		
106	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (15)	3 (23)	3 (23)	3 (23)	3 (23)	5 (38)	3 (23)	3 (23)	0 (0)		
107	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	1 (8)	1 (8)	1 (8)	1 (8)	0 (0)	11 (85)	11 (85)	0 (0)		
108	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	4 (31)	4 (31)	4 (31)	4 (31)	6 (46)	2 (15)	2 (15)	0 (0)		
109	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (23)	5 (38)	5 (38)	5 (38)	5 (38)	5 (38)	0 (0)	0 (0)	0 (0)		
110	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	3 (23)	3 (23)	3 (23)	3 (23)	7 (54)	2 (15)	2 (15)	0 (0)		
111	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (23)	2 (15)	2 (15)	2 (15)	2 (15)	8 (62)	0 (0)	0 (0)	0 (0)		
112	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	2 (15)	2 (15)	2 (15)	2 (15)	7 (54)	3 (23)	3 (23)	0 (0)		
113	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	4 (31)	4 (31)	4 (31)	4 (31)	7 (54)	1 (8)	1 (8)	0 (0)		
114	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	2 (15)	2 (15)	2 (15)	2 (15)	8 (62)	2 (15)	2 (15)	0 (0)		
115	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (23)	3 (23)	3 (23)	3 (23)	6 (46)	4 (31)	4 (31)	0 (0)		
116	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (15)	0 (0)	0 (0)	0 (0)	0 (0)	2 (15)	9 (69)	9 (69)	0 (0)		
117	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	9 (69)	3 (23)	3 (23)	3 (23)	3 (23)	1 (8)	0 (0)	0 (0)	0 (0)		
118	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (23)	9 (69)	9 (69)	9 (69)	9 (69)	1 (8)	0 (0)	0 (0)	0 (0)		
119	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (23)	3 (23)	3 (23)	3 (23)	9 (69)	0 (0)	0 (0)	1 (8)		
120	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (15)	5 (38)	5 (38)	5 (38)	5 (38)	4 (31)	2 (15)	2 (15)	0 (0)		

T.P.S. RESEARCH AND DEVELOPMENT, DIV. OF M. AND E. ITEM ANALYSIS SERVICE
 T PUERTO RICO 630
 ROCKWAS SPANISH PROJECT

ITEMS NO. 101- 120 NUM. OF PEOPLE 5

ITEM NO.	RIGHT WHEN APPLICABLE		DID NOT RESPOND	NUM. OF PEOPLE				
	FREQ(PCNT)	FREQ(PCNT)		1	2	3	4	5
101	0 (0)	0 (0)	0 (0)	1 (20)	1 (20)	3 (60)	0 (0)	0 (0)
102	0 (0)	0 (0)	1 (20)	1 (20)	0 (0)	0 (0)	0 (0)	0 (0)
103	0 (0)	0 (0)	0 (0)	0 (0)	3 (60)	2 (40)	0 (0)	0 (0)
104	0 (0)	0 (0)	0 (0)	0 (0)	2 (40)	2 (40)	0 (0)	0 (0)
105	0 (0)	0 (0)	0 (0)	0 (0)	1 (20)	3 (60)	1 (20)	0 (0)
106	0 (0)	0 (0)	0 (0)	1 (20)	0 (0)	1 (20)	3 (60)	0 (0)
107	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	5 (100)	0 (0)
108	0 (0)	0 (0)	0 (0)	0 (0)	1 (20)	2 (40)	2 (40)	0 (0)
109	0 (0)	0 (0)	0 (0)	1 (20)	2 (40)	2 (40)	0 (0)	0 (0)
110	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (40)	0 (0)	0 (0)
111	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (40)	3 (60)	0 (0)
112	0 (0)	0 (0)	0 (0)	0 (0)	2 (40)	3 (60)	0 (0)	0 (0)
113	0 (0)	0 (0)	0 (0)	0 (0)	1 (20)	3 (60)	1 (20)	0 (0)
114	0 (0)	0 (0)	0 (0)	0 (0)	1 (20)	4 (80)	0 (0)	0 (0)
115	0 (0)	0 (0)	0 (0)	1 (20)	1 (20)	2 (40)	1 (20)	0 (0)
116	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	4 (80)	1 (20)	0 (0)
117	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (40)	3 (60)	0 (0)
118	0 (0)	0 (0)	0 (0)	4 (80)	1 (20)	0 (0)	0 (0)	0 (0)
119	0 (0)	0 (0)	0 (0)	1 (20)	1 (20)	3 (60)	0 (0)	0 (0)
120	0 (0)	0 (0)	0 (0)	1 (20)	1 (20)	3 (60)	1 (20)	0 (0)



T.P.S. RESEARCH AND DEVELOPMENT, DIV. OF M. AND E. ITEM ANALYSIS SERVICE
 T PUERLO 4 NH
 BOCKMAN'S SPANISH PROJECT ITEMS NO.101- 120. NUM. OF PEOPLE 57

ITEM NO.	RIGHT WHEN APPLICABLE		DID NOT RESPOND	NUM. OF PEOPLE				
	FREQ(PCNT)	FREQ(PCNT)		1	2	3	4	5
101	0 (0)	0 (0)	0 (0)	1 (2)	10 (18)	24 (42)	22 (39)	0 (0)
102	3 (6)	3 (6)	6 (11)	6 (11)	4 (7)	7 (12)	33 (58)	1 (2)
103	0 (0)	0 (0)	0 (0)	4 (7)	11 (19)	28 (49)	14 (25)	0 (0)
104	0 (0)	0 (0)	0 (0)	2 (4)	3 (5)	25 (46)	26 (46)	0 (0)
105	0 (0)	0 (0)	0 (0)	3 (5)	7 (12)	21 (37)	25 (44)	1 (2)
106	0 (0)	0 (0)	1 (2)	7 (12)	5 (9)	21 (37)	23 (40)	0 (0)
107	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	2 (4)	52 (91)	1 (2)
108	0 (0)	0 (0)	1 (2)	4 (7)	5 (9)	17 (30)	30 (53)	0 (0)
109	0 (0)	0 (0)	0 (0)	10 (18)	9 (16)	19 (33)	18 (32)	1 (2)
110	0 (0)	0 (0)	0 (0)	1 (2)	13 (23)	17 (30)	25 (44)	1 (2)
111	0 (0)	0 (0)	0 (0)	3 (5)	10 (18)	27 (47)	16 (28)	1 (2)
112	0 (0)	0 (0)	0 (0)	3 (5)	3 (5)	23 (40)	27 (47)	1 (2)
113	0 (0)	0 (0)	1 (2)	2 (4)	11 (19)	23 (40)	19 (33)	1 (2)
114	0 (0)	0 (0)	1 (2)	3 (5)	6 (11)	21 (37)	25 (44)	1 (2)
115	0 (0)	0 (0)	2 (4)	3 (5)	4 (7)	19 (33)	28 (49)	1 (2)
116	0 (0)	0 (0)	1 (2)	3 (5)	2 (4)	4 (7)	46 (81)	1 (2)
117	0 (0)	0 (0)	0 (0)	16 (28)	12 (21)	12 (21)	16 (28)	1 (2)
118	0 (0)	0 (0)	0 (0)	3 (5)	19 (33)	27 (47)	7 (12)	1 (2)
119	0 (0)	0 (0)	1 (2)	3 (5)	11 (19)	26 (46)	15 (26)	1 (2)
120	0 (0)	0 (0)	3 (5)	4 (7)	9 (16)	25 (44)	15 (26)	1 (2)



T.P.S. RESEARCH AND DEVELOPMENT, DIV. OF M. AND E. ITEM ANALYSIS SERVICE
 TUCSON, ARIZONA 85724
 BOCKHANS SPANISH PROJECT

ITEMS NO. 101- 120 NUM. OF PEOPLE 114

ITEM NO.	RIGHT WHEN APPLICABLE		WRONG		DID NOT RESPOND		1		2		3		4		5	
	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)
101	0 (0)	0 (0)	0 (0)	0 (0)	1 (1)	12 (11)	22 (19)	54 (47)	25 (22)	0 (0)						
102	0 (0)	0 (0)	0 (0)	0 (0)	1 (1)	7 (6)	11 (10)	35 (31)	59 (52)	1 (1)						
103	0 (0)	0 (0)	0 (0)	0 (0)	4 (4)	15 (13)	45 (39)	36 (32)	13 (11)	1 (1)						
104	0 (0)	0 (0)	0 (0)	0 (0)	5 (4)	9 (9)	15 (13)	50 (44)	34 (30)	1 (1)						
105	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	15 (13)	18 (16)	42 (37)	38 (33)	1 (1)						
106	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	16 (14)	28 (25)	33 (29)	35 (31)	2 (2)						
107	0 (0)	0 (0)	0 (0)	0 (0)	1 (1)	3 (3)	5 (4)	14 (12)	89 (78)	2 (2)						
108	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	11 (10)	28 (25)	37 (32)	38 (33)	0 (0)						
109	0 (0)	0 (0)	0 (0)	0 (0)	1 (1)	31 (27)	37 (32)	29 (25)	16 (14)	0 (0)						
110	0 (0)	0 (0)	0 (0)	0 (0)	1 (1)	7 (6)	26 (23)	48 (42)	32 (28)	0 (0)						
111	0 (0)	0 (0)	0 (0)	0 (0)	5 (4)	17 (15)	36 (32)	44 (39)	12 (11)	0 (0)						
112	0 (0)	0 (0)	0 (0)	0 (0)	2 (2)	9 (8)	19 (17)	54 (47)	30 (26)	0 (0)						
113	0 (0)	0 (0)	0 (0)	0 (0)	6 (5)	19 (17)	32 (28)	45 (39)	12 (11)	0 (0)						
114	0 (0)	0 (0)	0 (0)	0 (0)	7 (6)	9 (8)	23 (20)	54 (47)	20 (18)	1 (1)						
115	0 (0)	0 (0)	0 (0)	0 (0)	5 (5)	5 (4)	13 (11)	52 (46)	37 (32)	1 (1)						
116	0 (0)	0 (0)	0 (0)	0 (0)	6 (5)	14 (12)	6 (5)	28 (25)	59 (52)	1 (1)						
117	0 (0)	0 (0)	0 (0)	0 (0)	7 (6)	67 (59)	20 (18)	10 (9)	10 (9)	0 (0)						
118	0 (0)	0 (0)	0 (0)	0 (0)	10 (9)	23 (20)	40 (35)	33 (29)	7 (6)	1 (1)						
119	0 (0)	0 (0)	0 (0)	0 (0)	8 (7)	8 (7)	27 (24)	52 (46)	18 (16)	1 (1)						
120	0 (0)	0 (0)	0 (0)	0 (0)	12 (11)	14 (12)	33 (29)	40 (35)	14 (12)	1 (1)						

ITEM NO.	RIGHT WHEN APPLICABLE		WRONG DID NOT RESPOND		NUM. OF PEOPLE				
	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	1	2	3	4	5
101	0 (0)	0 (0)	0 (0)	0 (0)	6 (9)	17 (25)	39 (57)	7 (10)	0 (0)
102	0 (0)	0 (0)	0 (0)	0 (0)	2 (3)	5 (7)	18 (26)	44 (64)	0 (0)
103	0 (0)	0 (0)	0 (0)	1 (1)	5 (7)	28 (41)	27 (39)	7 (10)	1 (1)
104	0 (0)	0 (0)	0 (0)	0 (0)	1 (1)	20 (29)	28 (41)	19 (28)	1 (1)
105	0 (0)	0 (0)	0 (0)	0 (0)	3 (4)	12 (17)	36 (52)	18 (26)	0 (0)
106	0 (0)	0 (0)	0 (0)	0 (0)	4 (6)	15 (22)	21 (30)	29 (42)	0 (0)
107	0 (0)	0 (0)	0 (0)	0 (0)	1 (1)	2 (3)	14 (20)	52 (75)	0 (0)
108	0 (0)	0 (0)	0 (0)	1 (1)	3 (4)	10 (14)	27 (39)	28 (41)	0 (0)
109	0 (0)	0 (0)	0 (0)	1 (1)	5 (7)	25 (36)	23 (33)	15 (22)	0 (0)
110	0 (0)	0 (0)	0 (0)	0 (0)	3 (4)	10 (14)	32 (46)	24 (35)	0 (0)
111	0 (0)	0 (0)	0 (0)	1 (1)	1 (1)	31 (45)	29 (42)	7 (10)	0 (0)
112	0 (0)	0 (0)	0 (0)	1 (1)	0 (0)	12 (17)	35 (51)	21 (30)	0 (0)
113	0 (0)	0 (0)	0 (0)	0 (0)	3 (4)	16 (23)	40 (58)	10 (14)	0 (0)
114	0 (0)	0 (0)	0 (0)	1 (1)	4 (6)	12 (17)	34 (49)	18 (26)	0 (0)
115	0 (0)	0 (0)	0 (0)	1 (1)	0 (0)	7 (10)	34 (49)	27 (39)	0 (0)
116	0 (0)	0 (0)	0 (0)	1 (1)	5 (7)	10 (14)	12 (17)	41 (59)	0 (0)
117	0 (0)	0 (0)	0 (0)	0 (0)	30 (43)	20 (29)	16 (23)	3 (4)	0 (0)
118	0 (0)	0 (0)	0 (0)	0 (0)	8 (12)	32 (46)	17 (25)	12 (17)	0 (0)
119	0 (0)	0 (0)	0 (0)	1 (1)	2 (3)	16 (23)	31 (45)	18 (26)	1 (1)
120	0 (0)	0 (0)	0 (0)	3 (4)	5 (7)	17 (25)	31 (45)	13 (19)	0 (0)

T.O.S. RESEARCH AND DEVELOPMENT, DIV. OF H. AND E. ITEM ANALYSIS SERVICE
 T 195504 70-71S 660 2 NN
 ROCKWAYS SPANISH PROJECT ITEMS NO. 101- 120 NUM. OF PEOPLE 40

ITEM NO.	FREQ(PCNT)	WRONG WHEN APPLICABLE FREQ(PCNT)	DID NOT RESPOND FREQ(PCNT)	1 FREQ(PCNT)	2 FREQ(PCNT)	3 FREQ(PCNT)	4 FREQ(PCNT)	5 FREQ(PCNT)
101	3 (6)	0 (0)	2 (5)	0 (0)	10 (25)	15 (45)	10 (25)	0 (0)
102	3 (6)	3 (6)	1 (2)	0 (0)	1 (2)	11 (27)	27 (67)	0 (0)
103	0 (0)	0 (0)	1 (2)	3 (7)	8 (20)	22 (55)	6 (15)	0 (0)
104	0 (0)	3 (6)	1 (2)	2 (5)	6 (15)	21 (52)	10 (25)	0 (0)
105	0 (0)	2 (5)	1 (2)	1 (2)	11 (27)	16 (40)	11 (27)	0 (0)
106	0 (0)	0 (0)	2 (5)	6 (15)	9 (22)	9 (22)	14 (35)	0 (0)
107	0 (0)	0 (0)	1 (2)	2 (5)	2 (5)	1 (2)	34 (85)	0 (0)
108	0 (0)	0 (0)	1 (2)	1 (2)	9 (22)	11 (27)	18 (45)	0 (0)
109	0 (0)	0 (0)	0 (0)	3 (7)	12 (30)	14 (35)	11 (27)	0 (0)
110	0 (0)	0 (0)	0 (0)	5 (13)	6 (15)	13 (32)	16 (40)	0 (0)
111	0 (0)	0 (0)	0 (0)	2 (5)	12 (30)	18 (45)	8 (20)	0 (0)
112	0 (0)	0 (0)	1 (2)	1 (2)	3 (7)	22 (55)	13 (32)	0 (0)
113	0 (0)	0 (0)	0 (0)	3 (7)	9 (22)	19 (47)	9 (22)	0 (0)
114	0 (0)	0 (0)	0 (0)	3 (7)	6 (15)	13 (32)	18 (45)	0 (0)
115	0 (0)	0 (0)	0 (0)	2 (5)	4 (10)	17 (42)	17 (42)	0 (0)
116	0 (0)	0 (0)	0 (0)	2 (5)	4 (10)	7 (17)	27 (67)	0 (0)
117	0 (0)	0 (0)	0 (0)	14 (35)	16 (40)	8 (20)	2 (5)	0 (0)
118	0 (0)	0 (0)	0 (0)	7 (17)	12 (30)	18 (45)	3 (7)	0 (0)
119	0 (0)	0 (0)	1 (2)	3 (7)	12 (30)	14 (35)	10 (25)	0 (0)
120	0 (0)	0 (0)	1 (2)	4 (10)	6 (15)	18 (45)	11 (27)	0 (0)



ITEM NO.	RIGHT WHEN APPLICABLE		DID NOT RESPOND	NUM. OF PEOPLE				
	FREQ(PCNT)	FREQ(PCNT)		1	2	3	4	5
101	0 (0)	0 (0)	1 (2)	4 (6)	13 (20)	29 (45)	18 (28)	0 (0)
102	0 (0)	0 (0)	0 (0)	2 (3)	14 (22)	22 (34)	27 (42)	0 (0)
103	0 (0)	0 (0)	5 (8)	10 (15)	19 (29)	25 (38)	5 (8)	1 (2)
104	0 (0)	0 (0)	3 (5)	2 (3)	5 (8)	17 (26)	37 (57)	1 (2)
105	0 (0)	0 (0)	2 (3)	4 (6)	13 (20)	25 (38)	17 (26)	4 (6)
106	0 (0)	0 (0)	2 (3)	9 (14)	17 (26)	20 (31)	15 (23)	2 (3)
107	0 (0)	0 (0)	0 (0)	3 (5)	4 (6)	11 (17)	47 (72)	0 (0)
108	0 (0)	0 (0)	2 (3)	8 (12)	14 (22)	26 (40)	15 (23)	0 (0)
109	0 (0)	0 (0)	5 (8)	14 (22)	23 (35)	21 (32)	2 (3)	0 (0)
110	0 (0)	0 (0)	3 (5)	1 (2)	15 (23)	34 (52)	11 (17)	1 (2)
111	0 (0)	0 (0)	6 (9)	5 (8)	26 (40)	24 (37)	3 (5)	1 (2)
112	0 (0)	0 (0)	4 (6)	3 (5)	13 (20)	29 (45)	15 (23)	1 (2)
113	0 (0)	0 (0)	7 (11)	6 (9)	18 (28)	28 (43)	5 (8)	1 (2)
114	0 (0)	0 (0)	7 (11)	5 (8)	19 (29)	20 (43)	5 (8)	1 (2)
115	0 (0)	0 (0)	6 (9)	2 (3)	11 (17)	29 (45)	17 (26)	0 (0)
116	0 (0)	0 (0)	3 (5)	3 (5)	5 (8)	15 (23)	39 (60)	0 (0)
117	0 (0)	0 (0)	3 (5)	45 (69)	12 (18)	3 (5)	2 (3)	0 (0)
118	0 (0)	0 (0)	7 (11)	15 (23)	33 (51)	10 (15)	0 (0)	0 (0)
119	0 (0)	0 (0)	8 (12)	9 (14)	15 (23)	29 (45)	4 (6)	0 (0)
120	0 (0)	0 (0)	8 (12)	7 (11)	19 (29)	21 (32)	10 (15)	0 (0)



T.P.S. RESEARCH AND DEVELOPMENT, DIV. OF M. AND E. ITEM ANALYSIS SERVICE

T. THOMPSON 70-71S 660 4 RN

ROCKMAN'S SPANISH PROJECT ITEMS NO. 101- 120 NUM. OF PEOPLE 39

ITEM NO.	RIGHT WHEN APPLICABLE		WRONG		DID NOT RESPOND		NUM. OF PEOPLE				
	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	FREQ(PCNT)	1	2	3	4	5
101	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	6 (15)	0 (0)	6 (15)	21 (54)	11 (28)	0 (0)
102	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	2 (5)	0 (0)	2 (5)	14 (36)	22 (56)	0 (0)
103	0 (0)	0 (0)	0 (0)	1 (3)	1 (3)	10 (26)	1 (3)	10 (26)	17 (44)	10 (26)	0 (0)
104	0 (0)	0 (0)	0 (0)	1 (3)	2 (5)	2 (5)	2 (5)	2 (5)	14 (36)	20 (51)	0 (0)
105	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	4 (10)	0 (0)	4 (10)	19 (49)	14 (36)	1 (3)
106	0 (0)	0 (0)	0 (0)	2 (5)	3 (8)	8 (21)	3 (8)	8 (21)	7 (10)	19 (49)	0 (0)
107	0 (0)	0 (0)	0 (0)	1 (3)	1 (3)	2 (5)	1 (3)	2 (5)	4 (10)	31 (79)	0 (0)
108	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)	2 (5)	0 (0)	2 (5)	21 (54)	14 (36)	0 (0)
109	0 (0)	0 (0)	0 (0)	1 (3)	1 (3)	11 (28)	1 (3)	11 (28)	18 (46)	8 (21)	0 (0)
110	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)	4 (10)	0 (0)	4 (10)	19 (49)	14 (36)	0 (0)
111	0 (0)	0 (0)	0 (0)	4 (10)	0 (0)	12 (31)	0 (0)	12 (31)	19 (49)	4 (10)	0 (0)
112	0 (0)	0 (0)	0 (0)	2 (5)	1 (3)	5 (13)	1 (3)	5 (13)	17 (44)	14 (36)	0 (0)
113	0 (0)	0 (0)	0 (0)	5 (13)	1 (3)	6 (15)	1 (3)	6 (15)	19 (49)	8 (21)	0 (0)
114	0 (0)	0 (0)	0 (0)	4 (10)	0 (0)	6 (15)	0 (0)	6 (15)	18 (46)	10 (26)	1 (3)
115	0 (0)	0 (0)	0 (0)	4 (10)	0 (0)	2 (5)	0 (0)	2 (5)	16 (41)	16 (41)	1 (3)
116	0 (0)	0 (0)	0 (0)	4 (10)	3 (8)	2 (5)	3 (8)	2 (5)	6 (15)	23 (59)	1 (3)
117	0 (0)	0 (0)	0 (0)	6 (15)	10 (26)	10 (26)	10 (26)	10 (26)	5 (13)	8 (21)	0 (0)
118	0 (0)	0 (0)	0 (0)	5 (13)	0 (0)	19 (49)	0 (0)	19 (49)	10 (26)	4 (10)	1 (3)
119	0 (0)	0 (0)	0 (0)	6 (15)	3 (8)	9 (23)	3 (8)	9 (23)	15 (38)	5 (13)	1 (3)
120	0 (0)	0 (0)	0 (0)	8 (21)	2 (5)	7 (18)	2 (5)	7 (18)	11 (28)	10 (26)	1 (3)

ITEM NO.	RIGHT WHEN APPLICABLE		WRONG FREQ(PCNT)	DID NOT RESPOND FREQ(PCNT)	NUM. OF PEOPLE				
	FREQ(PCNT)	FREQ(PCNT)			1	2	3	4	5
101	0 (0)	0 (0)	0 (0)	0 (0)	2 (8)	4 (15)	12 (46)	8 (31)	0 (0)
102	0 (0)	0 (0)	0 (0)	0 (0)	1 (4)	2 (8)	7 (27)	16 (62)	0 (0)
103	0 (0)	0 (0)	0 (0)	0 (0)	1 (4)	6 (23)	16 (62)	3 (12)	0 (0)
104	0 (0)	0 (0)	0 (0)	0 (0)	1 (4)	1 (4)	12 (46)	12 (46)	0 (0)
105	0 (0)	0 (0)	0 (0)	0 (0)	1 (4)	1 (4)	13 (50)	10 (38)	1 (4)
106	0 (0)	0 (0)	0 (0)	0 (0)	1 (4)	2 (8)	8 (31)	15 (58)	0 (0)
107	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (8)	1 (4)	23 (98)	0 (0)
108	0 (0)	0 (0)	0 (0)	0 (0)	1 (4)	1 (4)	8 (31)	16 (62)	0 (0)
109	0 (0)	0 (0)	0 (0)	0 (0)	2 (8)	5 (19)	5 (19)	14 (54)	0 (0)
110	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (12)	11 (42)	12 (46)	0 (0)
111	0 (0)	0 (0)	0 (0)	0 (0)	1 (4)	8 (31)	13 (50)	4 (15)	0 (0)
112	0 (0)	0 (0)	1 (4)	1 (4)	0 (0)	2 (8)	10 (38)	13 (50)	0 (0)
113	0 (0)	0 (0)	2 (8)	2 (8)	2 (9)	2 (8)	12 (46)	8 (31)	0 (0)
114	0 (0)	0 (0)	3 (12)	3 (12)	0 (0)	7 (27)	8 (31)	8 (31)	0 (0)
115	0 (0)	0 (0)	2 (8)	2 (8)	1 (4)	0 (0)	9 (35)	14 (54)	0 (0)
116	0 (0)	0 (0)	2 (8)	2 (8)	1 (4)	1 (4)	5 (19)	17 (65)	0 (0)
117	0 (0)	0 (0)	2 (8)	2 (8)	7 (27)	7 (27)	4 (15)	6 (23)	0 (0)
118	0 (0)	0 (0)	2 (8)	2 (8)	3 (12)	8 (31)	11 (42)	2 (8)	0 (0)
119	0 (0)	0 (0)	2 (8)	2 (8)	2 (8)	3 (12)	11 (42)	8 (31)	0 (0)
120	0 (0)	0 (0)	3 (12)	3 (12)	0 (0)	5 (19)	9 (35)	9 (35)	0 (0)

