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STUDIES IN WORD LISTING: SOME NORMS AND THEIR RELIABILITY

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Scottish undergraduates, 100 women and 100 men, listed items belonging to 28 categories for one minute each. Responses were tabulated, and extensive response norms are presented for (a) the frequency with which various responses were given, and (b) the mean serial position in response lists of the commoner responses. Frequency and serial position were negatively related in all categories. Comparisons of data from odd-numbered and even-numbered subjects indicated that the frequency norms were more reliable than those for serial position.

The object of this paper is to present normative information about a number of word-listing tasks. In a word-listing (WL) task, a category is specified (by name or by brief verbal definition) and subjects are asked to provide examples of items which fall within the category. The responses are discrete words (or highly integrated phrases which function like discrete words). Ss may be asked to provide a stated number of categorymembers or, more usually, to provide as many examples as possible in a limited period of time.

Such tasks have long been used to explore individual differences in fluency, and factor analytic studies have indicated the existence of more than one type of fluency; hence the appearance in the literature of numerous terms such as word-fluency, associational fluency, and ideational fluency. In terms of Guilford's Structure-of-Intellect model, the tasks involve the divergent production of units: semantic units where the category is defined with reference to word-meaning (e.g., Birds), symbolic units where the category is defined with reference to word-structure (e.g., Words beginning with the letters 'Con'). Guilford (1967) reserves the label 'word listing' for tasks requiring DSU, and calls tasks requiring DMU 'thing listing' tasks. Both types are included in the present study.

WL tasks have also provided a source of 'category norms' for use in experimental work. Such norms list the specific responses made by Ss in WL tasks in order of their frequency of occurrence. These responses may be used as stimuli in concept attainment experiments (where they act as positive instances of the concept defined by the category name) or

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in memory experiments, especially where categorial clustering is of interest. Choosing high-frequency words from the category norms for use in such experiments generally makes the task easier (increases the amount of clustering, etc.); choosing low-frequency words raises the difficulty level. The earliest set of category norms was collected by Cohen, Bousfield and Whitmarsh (1957). Both these norms and more recent ones (e.g. Battig and Montague, 1969) have been based on data from American university students.

COLLECTION OF THE DATA

The present data were collected early in 1965 from a group of students at a Scottish university. A total of 28 categories was used, with one minute allowed for each WL task. Responses were written in booklets, one page per category. The data were collected during a regular lecture hour.

CATEGORIES

The categories were defined at the top of the booklet pages. The full definitions are reproduced in the Appendix; for convenience, short titles will be used in the text of this report. There were 19 semantically defined categories (e.g., Musical Instruments, Things to Drink), two syntactic categories (Adjectives, Prepositions) and 7 structurally defined categories (e.g., Words which Rhyme with Day, Words which begin with the letters CoN). The structural categories are those numbered 8, 9, 13, 14, 22, 27 and 28 in the Appendix. An attempt was made to include large categories (Occupations, Towns in Great Britain) and small categories (Plays by Shakespeare, National Newspapers); categories from which retrieval should be easy and orderly (Colours, Units of Time) and categories from which retrieval would be difficult and ill-organized (Things which are Latge and Flat, Words ending in X). Twelve of the semantic categories were taken from the Cohen *et al.* (1957) study.

BOOKLETS

Apart from a cover-page on which S wrote his name and sex, the booklet consisted of 28 quarto response pages. Four different orders of presentation were used. The categories were divided into four sets of 7 categories each, and order within each set of 7 was fixed. The order of the four sets was varied by means of a Latin square.

PROCEDURE

Ss were asked to write down as many examples of each category as they could in the time allowed (1 minute). They were asked to write their STUDIES IN WORD LISTING

responses in a column down the page, in the order in which they came to mind (as far as possible). At the end of each minute, they were told to stop writing, turn to the next page and begin on the next category. Two short breaks were included during the testing.

SUBJECTS

The Ss were university students attending the Ordinary (Introductory) course in Psychology at the University of Aberdeen during session 1964-'65. A majority were Arts Faculty students, the rest being Science Faculty students. The modal age of the group was 18 years. Over 300 Ss were tested, about two-thirds being women. For analysis groups of 100 women and 100 men were selected. Overseas students were excluded, as were those (mainly men) who were much older than the group as a whole. Further selection was made at random. Those not selected served as a reserve pool, the use of which is explained below.

SCORING CONVENTIONS

The first task was to code the response protocols into a manageable form. To achieve this, each response in a given category was assigned a code-number, and each S's response-list converted into a sequence of code-numbers. Each such sequence was transferred to a punched card, and all subsequent analyses were done on the cards by computer. The coding process itself is clearly subject to human error, and some errors certainly occurred at this stage. Some types of error, which it was easy to look for, were located and corrected. Their frequency was low enough to suggest that the remaining errors are relatively few.

Two types of problem arose in coding the protocols, one relating to categories as such, the other relating to specific responses within a category.

PROBLEMS WITH CATEGORIES

(a) Omissions. Occasionally blank pages were found in the booklets. These would occur (i) if S had turned over two pages at once, or (ii) if S did not understand the definition of a category, or (iii) if S understood what was required but could not think of any examples of the category. Generally there was no way of telling which was the true explanation. In all such cases, the missing protocol was replaced by one written by a S of the same sex, selected at random from the reserve pool.

The categories with the greatest number of blank pages were the two 'anagram' tasks, where Ss were asked to form words using a pool of six letters only (MORTAL, WHINES). In both categories, 15 Ss $(7\frac{1}{2})$ gave no

responses (or responded in a way which showed misunderstanding of the category definition), and were replaced from the reserve pool. The Chemical Elements category probably elicited the most cases of Ss understanding the category definition but being unable to think of any of its members.

(b) Misunderstandings. More difficult to deal with were cases where a S had misunderstood a category definition, and had written down responses which belonged to a category different from that intended. The difficulty was that the category as understood by S generally overlapped the category as intended by E; disqualifying such a protocol could seem arbitrary. Two categories in particular were affected, and the solutions adopted differed in the two cases.

The Occupations category was widely misinterpreted, probably due to the way in which it was defined: 'Names applied to people to indicate their occupation or profession'. This wording originated with Cohen et al. (1957), presumably in order to elicit such responses as 'doctor, teacher, sailor' rather than 'medicine, teaching, navy'. In this it succeeded. But there were Ss who interpreted the category as (i) titles or styles of address: Dr., Major, Rev., Your Majesty; or (ii) as qualifications: M.D., Dip.Ed., C.A.; or (iii) as surnames of occupational origin: Smith, Baker, Wright. (The last of these was the commonest). In such cases, protocols were replaced by others from the reserve pool provided that the entire response list was dominated by a misinterpretation of the category; this necessitated the replacement of 50 protocols (25%) in all. The remaining protocols, however, are not untainted by the unintended interpretations: some Ss began with 'Smith, Baker, Wright', but soon abandoned this retrieval strategy and continued with 'doctor, lawyer, lecturer'. Thus occupations which can be used as surnames are probably commoner (and occur earlier in response sequences) than one would expect.

The second problem category was Prepositions. Most Ss listed only prepositions, but others listed conjunctions or a mixture of prepositions and conjunctions. (In some cases pronouns also figured in the response lists). To disqualify a whole protocol because it contained one conjunction seemed too harsh a procedure, but any other criterion would be quite arbitrary. In the end all response lists were accepted, however the category had been interpreted.

PROBLEMS IN CODING SPECIFIC RESPONSES

(a) Errors. The prevalence of errors, i.e., of responses which do not belong to the category specified, varied from category to category. Some examples may be given: 'very' is not an Adjective, 'water' is not a Chemical Element, 'Dublin' is not a Town in Great Britain, a 'light year' is not a Unit of Time. Should such errors be deleted? To do so would necessitate devising criteria for recognising 'errors' and this would be difficult: is a 'handbag' an Article of Clothing? is 'motor cycling' a Sport? does 'room' rhyme with Moon? is 'Elizabeth' a Bird? To avoid the problems of defining errors, it was decided not to delete them; words of dubious acceptability obviously have quite low frequencies of occurrence. However, practice was not completely consistent; in some of the structurally defined categories errors were deleted (e.g. 'scale' was deleted in the category of Words Beginning with 'S' and Ending with 'L').

(b) Variant forms and synonyms. The main problem in response-coding is that of deciding whether two distinguishable responses should be regarded as variant forms of the same response or not. For example, in listing Things which are Large and Flat, some Ss wrote 'table' while others wrote 'table top'. Despite the fact that a table top is not the same as a table, both responses were given the same code-number on the grounds that they represented the same 'idea' in the context of the task. This decision was relatively easy, and the fact that no S listed both 'table' and 'table top' helped to make it easy. A more difficult decision was to regard 'double bass' and 'bass' as different responses in the Musical Instruments category; the fact that four Ss had listed both forms underlay this decision. A rule was adopted that, if any S gave both forms, then they were to be treated as distinct responses. Consequently, among Sports, while 'rugby' and 'rugger' were regarded as the same response, 'football 'and 'soccer' were not (four Ss listing both). In some cases, but not many, this rule leaves the tabulation at the mercy of a lapse of memory on the part of a single subject. On the whole, however, it seemed to work quite well. In the response norms in the Appendix most of the variant forms which have been classed together are indicated.

The only exceptions made to the above rule were in the categories of Female First Names and Male First Names. Here names which were pronounced identically (e.g., Ann, Anne; Stewart, Stuart) were regarded as equivalent, although very occasionally a subject had written down both spellings.

Some words have more than one meaning, and may be synonymous with two other words which are not themselves synonymous. For example, 'pants' may mean 'trousers' or 'underpants'; 'bowling' may mean 'bowls' on a green or 'tenpin bowling' in an alley. In such cases, the ambiguous word was tallied separately from either of its synyonyms.

(c) Repetitions. If the same word occurred more than once in a single protocol, only its first occurrence was counted. Thus, the response frequencies in the norms correspond to the number of Ss who gave the

response, and not to the number of times the response was given; the difference was never more than marginal.

RESULTS

SUMMARY STATISTICS FOR THE 28 CATEGORIES

The number of responses made by each S to each category was ascertained. Means and SDs are shown in Table 1 (cols. 1 and 2), along with the total number of different responses given by the group as a whole (col. 3) which gives a rough guide to the (relative) size of the pool of available responses on which S can draw.

The seven most productive categories (Nos. 2, 4, 6, 7, 11, 12, 25) are all semantic, well-defined and with relatively large response pools. Only three of them, however, occur among the seven categories with the largest response pools (Nos. 1, 8, 11, 12, 17, 24, 25). It is clear that the mean number of responses given by Ss is not simply a function of the size of response pool available: the two measures correlate only +.37.

Of the seven least productive categories (Nos. 13, 14, 19, 22, 24, 27, 28) five are structurally defined. This suggests that it is rather difficult to retrieve items belonging to structural categories, presumably because the long-term store is organized largely on a semantic basis. On the other hand, a vaguely defined semantic category (Things which are Large and Flat) is also difficult, despite the large pool of responses available; here too the category specified probably fails to match anything in the organization of long-term memory. The remaining category in the low productivity group (Precious Stones) is well-organized but objectively small.

The more productive categories allow more scope for individual variation; in fact, the mean number of responses given correlates +.33 with the SD. The two syntactic categories (Adjectives, Prepositions) have relatively large SDs, but by far the largest is that for Chemical Elements; differential familiarity with this category would be expected from the variations in the Ss' secondary education.

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TABLE 1

Summary Statistics for the 28 Categories

		No.	of Rs	No. of	Corr l	Corr between		
	Category	Mean	SD	Types	F an	nd SP		
					10+	20+		
					Words	Words		
<u> </u>			-					
	Adjectives	13.43	3.71	788	555	753		
2.	Four-footed Animals	14.41	2.82	121	864	853		
3.	Famous Battles	7.79	2.52	193	665	805		
4.	Birds	14.45	2.85	222	—.613	758		
5.	Chemical Elements	8.93	4.85	129	591	863		
6.	Articles of Clothing	14.99	2.68	130	814	—.766		
7.	Colours	14.53	2.31	115	880	911		
8.	Words beginning CON-	9.06	2.38	318	294	605		
9.	Words rhyming with DAY	11.62	2.69	103	622	528		
10.	Things to Drink	13.53	2.74	165	862	904		
11.	Female First Names	16.12	3.26	387	444	506		
12.	Male First Names	15.82	2.83	298	446	539		
13.	Words rhyming with MOON	6.62	1.98	71	721	698		
14.	Words from MORTAL	5.94	2.33	50	409	394		
15.	Musical Instruments	14.03	2.61	94	758	843		
16.	National Newspapers	8.33	2.40	64	874	918		
17.	Occupations or Professions	10.41	2.96	336	593	677		
	Plays by Shakespeare	9.25	2.13	55	732	786		
19.	Precious Stones	6.46	2.00	54	924	963		
20.	Prepositions	11.72	3.64	163	471	779		
	British Prime Ministers	10.48	2.82	55	894	886		
22.	Words beginning S, ending L	6.11	2.64	101	480	600		
	Sports	13.58	2.60	129	797	778		
	Things Large and Flat	5.71	2.31	228	240	030		
	Towns in Great Britain	14.07	3.08	377	676	796		
	Units of Time	10.98	1.88	83	745	716		
	Words from WHINES	7.38	2.44	46	512	527		
	Words ending $-x$	5.55	2.26	144	188	730		

Response Norms

The frequency of each response word was computed, as was its mean serial position (rank) in the response lists where it occurred. Extensive portions of these data are presented in the Appendix. The Appendix lists (a) the frequency (F) and mean serial position (SP) of all responses given by 10 Ss or more; (b) responses given by fewer than 10 Ss, unless more than 30 responses were tied at the same frequency; and (c) samples of 20 different responses at any frequency where more than 30 different responses were tied.

RELATION OF FREQUENCY TO SERIAL POSITION

There is good evidence (Bousfield & Barclay, 1950) that, at least in semantic categories, the most frequently given responses occur early in the response lists. Battig and Montague (1969) confirmed this for the 56 categories in their study by running correlations between F and SP for all words given by five or more Ss (2%) in their Maryland group. Similar F-SP correlations were obtained on the present data. Two values were computed for each category: one based on all words given by 10 or more Ss (20+ words). All 56 correlations were negative, thus confirming the findings of earlier investigators.

The reason for trying out two word-samples was as follows: Restricting the analysis to 20+ words reduces the range, and hence the variance, of F; this leads one to anticipate lower correlations for 20+ words than for 10+ words. The simple reduction in the number of cases entailed might have a similar effect. On the other hand, the lower the frequency of a response, the less reliably its 'true' SP can be estimated (since it is the mean of F cases). Hence, confining the sample to 20+ words should mean using a more reliable set of SP values, and this might lead to higher correlations for 20+ words than for 10+ words. In view of these conflicting expectations, it was decided to obtain and compare both sets of correlations. They are shown in Table 1 (cols. 4 and 5).

In 19 categories, the F-SP correlation was higher for the 20+ words than for the 10+ words; restricting the data to 20+ words raised the median r from -.64 to -.76. This is interpreted as an outcome of the decreasing reliability of the SP data when F falls below 20; evidence bearing on this point is presented below. The seven categories with the highest correlations (Nos. 2, 5, 7, 10, 16, 19, 21) are all well-formed semantic categories with small or moderately sized pools of available responses. Of the seven categories with the lowest correlations (Nos. 9, 11, 12, 14, 22, 24, 27), four are defined structurally and three semantically. The three semantic categories are Things which are Large and Flat, an

amorphous category which Ss are not accustomed to using, and Female and Male Names, the categories most likely to be organized idiosyncratically. Ss will be most familiar with their own names and those of close friends and family members, whether these names occur frequently in the population or not. If they gave these names first, and fell back on the commonest names later in their response lists, the F-SP correlation based on grouped data would be depressed, although the behaviour of the individual S would remain systematic.

SPLIT-HALF RELIABILITY OF THE NORMS

The Ss were divided into two groups of 100 (each with 50 women and 50 men) by taking odd-numbered and even-numbered Ss. All tabulations and calculations already made for the total group were repeated for the two subgroups (O and E) separately. This enabled some attempt to assess the reliability of the norms.

MEAN NUMBER OF RESPONSES

The mean number of responses given by Ss in subgroups O and E are shown in Table 2 (cols. 1 and 2). The means correlate \pm .95. A t-test of the difference between each pair of means was carried out (Table 2, col. 3). Two of the differences are significant at the .05 level: subgroup O listed more Colours, subgroup E listed more Male Names. In 28 t-tests, one would expect one or two to be significant by chance. Thus, there is little to suggest that there are true differences between the subgroups in productivity.

Response Norms

To assess the reliability of the category norms in the Appendix, a procedure employed by Battig and Montague (1969) was adopted and extended. For each 10+ word in a category, frequencies (F) and mean serial positions (SP) were ascertained for the two subgroups separately. The two sets of F values were then correlated, as were the two sets of SP values; these correlations and the number of cases on which they are based are shown in Table 2 (cols. 4-6). The whole procedure was then repeated, this time for 20+ words only (see Table 2, cols. 7-9). No correction has been made for attenuation.

The odd-even correlations for 10+ words suggest that the F values are highly reliable. Median r is .97 and apart from one category (Conwords) all values of r are at or above .90. With 20+ words only, the variance on F is reduced and lower correlations would be expected. For 25 categories the correlation is lower for 20+ words than for 10+ words, but (again with the exception of Con- words) the changes are marginal. Thus the frequency norms appear to be highly reliable for 27 of the categories. いたい 合計の語

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TABLE 2 Split-Half Reliability Data

	No. of I	No. of Rs		$r \circ \epsilon: 10 + words$			$r \circ \epsilon: 20 + words$		
Category	Odd	Even	t	N		. SP	N		
	Ss	Ss						1	
1. Adjectives	13.14	13.72	1.11	61	.897	.465	21	.884	.575
2. Animals	14.51	14.31	0.50	47	.980	.839	32	.975	.919
3. Battles	7.83	7.75	0.22	33	.973	.291	20	.969	.707
4. Birds	14.69	14.22	1.17	67	.961	.643	40	.957	.754
5. Chem. Elen	n. 9.17	8.69	0.70	37	.934	.628	26	.924	.714
6. Clothing	14.81	15.17	0.95	43	.985	.819	29	.979	.873
7. Colours	14.88	14.18	2.16*	36	.992	.923	26	.992	.960
8. CON words	8.94	9.19	0.74	55	.681	.199	17	.320	.620
9. DAY									
Rhymes	11.72	11.52	0.52	39	.970	.620	27	.964	.752
10. Drinks	13.87	13.19	1.77	40	.981	.814	30	.976	.864
11. F. Names	16.21	16.04	0.37	83	.968	.280	40	.969	.586
12. M. Names	15.41	16.23	2.07*	75	.958	.351	41	.954	.524
13. MOON									
Rhymes	6.58	6.67	0.32	21	.978	.765	18	.975	.848
14. mortal-									
anagrams	6.16	5.73	1.31	24	.941	.508	21	.934	.458
15. Mus. Inst.	13.86	14.21	0.95	45	.978	.616	34	.972	.749
16. Newspapers	8.47 ·	8.20	0.80	22	.983	.858	19	.978	.871
17. Occu-									
pations	10.08	10.74	1.59	52	.959	.439	26	.958	.687
18. Shakespeare									
Plays	9.27	9.23	0.13	28	.963	.641	23	.951	.716
19. Precious									
Stones	6.39	6.53	0.49	16	.994	.925	13	.993	.913
	11.65	11.79	0.27	48	.965	.827	30	.960	.860
	10.49	10.47	0.05	21	.982	.899	19	.980	.889
22. S-L words	6.05	6.17	0.32	30	.939	.427	23	.940	.452
	13.67	13.49	0.49	49	.976	.716	32	.971	.898
—	5.49	5.93	1.36	28	.915	.629	15	.899	.554
	14.03	14.11	0.18	58	.984	.655	27	.987	.890
26. Time Units	10.89	11.07	0.68	26	.998	.921	14	.998	.965
27. WHINES-									
anagrams	7.39	7.37	0.06	27	.945	.573	23	.932	.821
28. $-X$ words	5.85	5.26	1.86	31	.931	.465	12	.919	.444

The correlations between the two estimates of SP, however, present a much less satisfactory picture. For 10+ words the odd-even correlations range from .20 to .92, with a median of .63. As suggested above, the stability of the SP data is probably inversely related to the frequency of the response. If this is so, then restricting the correlations to 20+ words should tend to raise them. In fact, the SP correlations are higher for 20+words than for 10+ words in 23 categories. Median r rises to .75, and some of the increases are substantial. The SP norms are clearly less reliable than the F norms, and are most reliable for the commonest responses.

It may be instructive to note which categories are least satisfactory in respect of the SP norms (the correlations for 20+ words are used). The three lowest odd-even correlations are all for structurally defined categories (Nos. 14, 22, 28); the six next lowest belong to six of the seven categories (Nos. 1, 8, 11, 12, 17, 24, but not 25) with the largest response pools. As one might expect, in these categories even the frequent responses (20+ words) are not very frequent in absolute terms. Over all categories the reliability of the SP data ($r \circ r$ for 20+ words) is closely related to the mean frequency of the commonest responses (20+ words): r=.81. Once more this points to the fact that the less often a response occurs the less reliably its SP can be estimated.

INDIVIDUAL RESPONSE-WORD ANALYSIS

Further analyses were carried out bearing on the reliability of the F and SP norms for 10+ words. For each word, (a) the significance of the difference in frequency between subgroups O and E was tested by chi² with 1 d.f.; and (b) the significance of the difference between the mean SP values from subgroups O and E was tested by t. The number of significant differences obtained was noted and compared with the number which could be expected to occur by chance in such a large number of tests. The findings are summarised in Table 3.

Summary of Individual Response-Word Analyses											
Frequency of Significant Odd-Even Differences											
	At or be	vond .05 level	At or bey	ond .01 level							
	\mathbf{F}	SP	F	SP							
10 + words (N=1142)											
Expected	57.1	57.1	11.42	11.42							
Observed	24	68	3	17							
20 + words (N=698)											
Expected	34.9	34.9	6.98	6.98							
Observed	14	35	2	8							

TABLE 3

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In view of the findings reported above, it is not surprising that there are more differences at a 'significant' level among the SP data than among the F data. If all 10+ words are considered, these frequencies are well within chance limits in the case of F, but not in the case of SP. However, if only 20+ words are considered, the number of significant SP differences is explicable by chance. This underlines the unreliability of the SP data for responses in the 10-19 frequency range. For responses of higher frequency, it is probably possible to use the SP norms with a modest degree of assurance.

RESTRICTIONS ON THE GENERAL UTILITY OF THE NORMS

No demonstration of split-half reliability can ensure that the norms may be used validly in respect of groups other than the normative group itself. The most likely restrictions on the generality of the norms are considered briefly below. In general, it is, of course, impossible to be sure how much importance to attach to any of the factors mentioned.

VERBAL CONTEXT

All WL tasks create a verbal context (including the instructions and the category label) which it is hoped will influence S's behaviour. But it is possible that the use of 28 WL tasks in a single session created unwanted effects of verbal context in the form of inter-category interference. For example, the word 'gray' is both a Colour and a Word Rhyming with Day; perhaps the inclusion of both categories in the present study has led to the frequency of this response being affected in one or both of these categories. In general terms, if X is a member of Category A and Category B and if Category A occurs earlier in testing that Category B, the frequency of response X in Category B may be increased: this increase might be attributed to the recent prior occurrence of X as a response to Category A or to its (subthreshold) arousal by Category A even if it did not occur as an overt response.

The norms were searched for response-words given by ten or more Ss in each of two categories; 25 such responses were located. Chi² was used to test two propositions, viz (a) that the response was more likely to be given in each category by Ss who had already worked on the other category than by Ss who had not and (b) that the response was more likely to be given in the later-occurring category by Ss who had already given the response in the earlier-occurring category than by Ss who had omitted to give the response to the earlier-occurring category. Proposition (a) was tested in 38 cases, and was confirmed once at the .05 level: 'lynx' was more often listed as an -X word by Ss who had already listed Animals than

by Ss who had not (irrespective of whether they had actually given 'lynx' as an Animal or not). On the other hand, Ss who had already listed Prepositions were less likely (p < .05) to give 'at' as a response to MORTALanagrams than were Ss who had not yet listed Prepositions; this is contrary to the hypothesis. Proposition (b) was tested in 44 cases and was confirmed at the .05 level in two instances: among Ss who had already listed Colours, those who had included 'turquoise' were more likely than those who had not to give 'turquoise' as a Precious Stone; and among Ss who had already listed MORTAL-anagrams, those who had included 'at' were more likely than those who had missed it to give 'at' as a Preposition. Clearly, despite these occasional confirmations, neither recency nor priming of a response in the context of one category had much effect on its probability of occurrence in response to a second appropriate category.

This analysis deals only with the simplest ways in which inter-category interference might show itself. The negative findings do not rule out less direct manifestations of verbal context on the behaviour of Ss. But a sizeable effect would probably have been noticed during some stage of the analysis; marginal effects will hardly affect the use of the norms.

NON-VERBAL CONTEXT

Non-verbal features of the test setting may have had an effect. In listing Things which are Large and Flat, 'blackboard' was the fourth commonest response; the fact that Ss sat facing a blackboard while responding may have contributed to its frequency. Again, the data were collected in mid-winter, which may have depressed the frequency of mention of summerseason Sports. And the Town in Great Britain which was given most often and earliest was the town in which testing took place; how important the place-of-testing was in determining this frequency is hard to say, since many of the Ss were also natives of the town and would be likely to mention it wherever testing took place. The F and SP values of particular responses may have been affected by such factors as these. But this cannot be demonstrated conclusively without the collection of a new set of data, gathered under changed circumstances.

CHRONOLOGICAL CHANGES SINCE 1965

The norms may have dated somewhat since their collection in 1965. For example, one new name has been added to the list of British Prime Ministers, and some others may be less memorable now than they were then. Some Newspapers have ceased publication and others have changed their names; but then some of those listed in 1965 had already ceased publication or changed their names when the present data were obtained. These are the most obvious chronological changes to have taken н Мин 11. д

place; there may be others in the remaining 26 categories, but they are less easy to anticipate.

CHARACTERISTICS OF THE NORMATIVE GROUP

The Ss were university students, and thus young adults, highly intelligent, well-educated, disproportionately middle-class, etc. Generalizing to other groups carries the usual hazards: usual, because normative groups are typically drawn from university student populations. Unlike previously published category norms, however, the present Ss were not American students. The group was made up exclusively of British students but was by no means representative of British students. The vast majority was Scottish, but was not representative of Scottish students, because students belonging to Aberdeen and the north-east were greatly overrepresented and only a minority came from more populous areas (such as the Forth-Clyde valley). It is unlikely that a group of students in any other university would respond in the way the present group did to the category of Towns in Great Britain. This is probably the only category where the norms are quite so locale-specific. But several of the other norms seem likely to be more useful in Scotland than in England, Ireland or Wales: examples are Battles, Female Names, Male Names, Moon Rhymes. In yet other categories we find specific responses which would surely occur less often in a non-Scottish group: examples are 'kilt' (Articles of Clothing), 'bagpipes' (Musical Instruments), The Scotsman (Newspapers), 'shinty' (Sports). If we ignore such responses, the norms for these categories can probably be used without too much difficulty throughout the British Isles. But, while it is relatively easy to pick out the distinctively Scottish responses prominent in the norms, it is harder to guess what responses would have markedly higher frequencies of occurrence in comparable sets of English, Irish or Welsh norms. At any rate, comparison with available American norms shows sufficient divergences to suggest that British researchers would be well advised to use British norms when these can be had.

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APPENDIX

RESPONSE NORMS FOR 28 CATEGORIES

For each category, the responses are listed in order of frequency of mention, and alphabetically within each frequency level where there are ties. For each response with a frequency of ten or more (5%), the mean Serial Position it occupies in the response-lists is also tabulated. For responses with a frequency of nine or less, frequencies only are presented: here the responses at each frequency level are listed seriatim following the frequency (which is given as a word rather than a numeral). Where the number of responses at a given frequency level does not exceed 30, all responses are listed. Where the number exceeds 30, a sample of 20 is provided together with a note of the number of response-words omitted from the listing. These samples were drawn by taking one response from each of 20 locations spaced at roughly equidistant points through the alphabetical list of all responses at that frequency level. Sampling in this way makes substantial savings in the length of the tables, while still providing responses which can be used to represent even the lowest frequency levels.

Where variant forms have been classed together, this is generally indicated by the way the response is written. Parentheses enclose 'optional' components of the response. For example, in Colours 'navy (blue)' means that 'navy' and 'navy blue' have been counted as the same response. An oblique stroke separates alternative forms. For example, in Sports 'rugby/ rugger' means that 'rugby' and 'rugger' have been counted as the same response; similarly, 'motor-/car-racing' means that 'car racing' and 'motor racing' have been counted as one response. A final example: in Things to Drink '(hot/drinking) chocolate' means that 'chocolate', भू अस्त स्

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'drinking chocolate' and 'hot chocolate' have all been counted as the same response.

The total list of 28 categories is as follows:

No.	0 /	Page
1.	Adjectives (except those of colour, shape, or nationality)	133
2.	Four-footed Animals	134
3.	Famous Battles	135
4.	Birds	136
5.	Chemical Elements	137
6.	Articles of Clothing	138
7.	Colours	139
8.	Words which begin with the letters 'CON'	140
9.	Words which rhyme with 'DAY'	. 141
10.	Things to Drink	. 142
11.	Female First Names (Christian Names)	. 143
12.	Male First Names (Christian Names)	. 144
13.	Words which rhyme with 'MOON'	. 146
14.	Words of any length made up from the letters MORTAL	. 146
15.	Musical Instruments	. 147
16.	National (not Local) Newspapers	. 148
17.	Names applied to People to Indicate their Occupation o	4 4 0
	Profession	
18.	Plays by Shakespeare	
19.	Precious Stones	
20.	Prepositions	
21.	British Prime Ministers	. 152
22.	Words beginning with 'S' and ending with 'L'	. 153
23.	Sports	. 154
24.	Things which are Large and Flat	. 155
25.	Towns in Great Britain	. 156
26.	Units of Time	. 157
27.	Words of any length made up from the letters whines	. 158
28.	Words which end in 'X'	. 159

STUDIES IN WORD LISTING

	Response	F	SP			Response	F	SP
1.	small	85	3.87		32.	slow	16	4.75
2.	big	66	3.02		33.	soft	16	9.62
3.	beautiful	60	5.75		34.	angry	15	5.33
4.	good	56	4.29		35.	indifferent	15	5.33
5.	bad	53	5.06		36.		15	9.47
6.	large	48	4.73			light		
7.	ugly	40	6.75		37.	hot	14	8.14
8.	fat	36	8.39		38.	silly	14	6.71
9.	short	31	8.58		39.	wide	14	6.64
10.	tall	31	6.39		40.	dull	13	7.23
11.	thin	31	8.35		41.	enormous	13	6.54
12. 13.	nice	30 30	6.97 8.33		42. 43.	poor rich	13 13	8.38 9.00
15. 14.	stupid	30 27	8.33 8.15		45. 44.		13	9.00 9.46
14.	happy	27	5.84		44. 45.	square sweet	13	9.40 9.46
15.	great little	23 24	6.25		45. 46.	gentle	12	9.40 7.42
17.	pretty	24	5.67		47.	narrow	12	7.58
18.	sad	24^{-1}	8.92		48.	smooth	12^{12}	8.33
19.	kind	23	8.17		49.	warm	12^{12}	8.08
20.	round	23	7.52		5 0.	wonderful	12^{12}	7.17
21.	old	20	7.45		51.	dark	11	9.55
22.	clever	19	8.84		52.	flat	11	7.00
23.	lovely	<u>1</u> 9	6.58		53.	new	11	8.45
24.	cold	18	7.22		54.	strong	11	7.45
25.	long	18	8.22		55.	fabulous	10	10.10
26.	tiny	18	7.39		56.	fine	10 **	
27.	- bright	17	6.53		57.	heavy	10	6.90
28.	fast	17	5.47	¢	58.	high	10	8.80
29.	hard	17	9.06		59.	quiet	10	8.30
30.	horrible	17*	8.94		60.	weak	10	8.80
31.	huge	16	3.75		61.	wet	10	8.50
						<u> </u>		

1. ADJECTIVES (EXCEPT THOSE OF COLOUR, NUMBER AND NATIONALITY)

NINE-funny, handsome, intelligent, low, quick, slim.

EIGHT-clean, dirty, dry, easy, gay, miserable, nasty, ridiculous, sour, terrible, young.

SEVEN-difficult, evil, grand, noisy, pleasant, rough, stout.

SIX—admirable, brilliant, clear, cruel, delightful, foolish, friendly, gorgeous, helpful, magnificent, marvellous, medium, sharp.

FIVE—alive, awful, cheerful, delicious, excellent, full, glorious, greedy, hateful, interesting, lazy, loud, mean, melancholy, oblong, proud, silent, simple, terrific, thick, tired, unusual, wooden.

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- FOUR—able, brave, broad, dead, dim, drunk, fantastic, honest, humble, idiotic, lonely, naughty, powerful, queer, shallow, skilful, splendid, stupendous, tepid, useless, very, wicked, witty, wrong.
- THREE—bitter, charming, dangerous, dreadful, far, generous, glad, gracious, insignificant, loose, magnanimous, opaque, real, sexy, sincere, spoilt, sulky, tight, tremendous, unhappy, 34 others.
- Two-amiable, better, close, crude, dilapidated, empty, fortunate, hopeless, jolly, masculine, mischievious, obvious, plain, rude, shy, sorry, striking, tidy, violent, wise, 101 others.
- ONE-adventurous, babyish, cloudy, crooked, diligent, embarrassing, faithful, frightful, harmless, indecisive, jovial, mellow, nondescript, petite, preposterous, retarded, slender, suitable, tranquil, weird, 448 others.

2. FOUR-FOOTED ANIMALS

1.	<i>Response</i> dog	F 189	<i>SP</i> 2.03	,	25.	<i>Response</i> hippo	F	SP
2.	cat	188	2.03	-	23.	(potamus)	35	10.06
<u>3</u> .	horse	173	4.09	,	26.	wolf	34	10.00
4.	cow	162	5.25		27.	camel	32	9.41
5.	elephant	143	8.26		28.	buffalo	29	10.17
6.	tiger	143	8.79		29.	hyena	29	11.72
7.	lion	141	8.10		30.	hare	$\overline{27}$	10.41
8.	pig	99	7.89		31.	panther	27	10.22
9.	sheep	96	7.90		32.	jaguar	22	10.59
10.	mouse	91	7.77		33.	badger	19	11.95
11.	giraffe	88	9.00		34.	kangaroo	18	10.67
12.	leopard	83	9.43		35.	llama	18	12.17
13.	rat	76	8.88		36.	mule	18	8.56
14.	deer	62	10.63		37.	ass	16	9.7 <i>Š</i>
15.	zebra	58	9.47		38.	pony	16	10.56
16.	donkey	53	8.64		39.	puma	16	11.50
17.	goat	52	8.08	4	40.	ōx	14	11.21
18.	rhino(ceros) 52	10.37	4	41.	monkey	13	11.77
19.	rabbit	48	9.04	4	42.	lynx	12	11.58
20.	bear	47	9.21	4	43.	weasel	12	11.67
21.	cheetah	40	11.05	4	44.	gazelle	11	11.09
22.	fox	39	9.82	4	45.	hamster	11	9.55
23.	antelope	35	11.34	4	46.	reindeer	11	11.18
24.	bull	35	7.57	4	47.	stoat	11	11.55

NINE-alligator, crocodile, gnu.

EIGHT—bison, calf, mole, (duck-billed) platypus, squirrel, wildebeest. SEVEN—guinea-pig, otter.

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SIX-jackal, lamb, tortoise.

FIVE-beaver, dormouse, elk, hedgehog, mink, moose, panda, yak.

FOUR-cougar, ferret, ram, shrew.

THREE-dromedary, frog, gorilla, stag, vole.

Two-ant-eater, armadillo, bushbaby, chimpanzee, comodo dragon, eland, foal, hartebeest, lizard, mare, mongoose, ocelot, okapi, polar bear, porcupine, skunk, tapir.

ONE—aardvark, ape, bat, boxer, brontosaurus, bullock, cattle, chinchilla, dalmatian, dingo, ewe, heifer, iguana, kitten, lemming, mammoth, mountain lion, muskrat, polecat, puppy, sloth, sow, terrier, wallaby, walrus, water rat.

3. FAMOUS BATTLES

			1111000	DUTT			
1.	<i>Response</i> Waterloo	F 158	<i>SP</i> 3.34	10	Response	F	SP
2.	Culloden	122	3.33	18.	Stamford	01	5 00
3.	Hastings			10	(Bridge)	21	5.90
	<u> </u>	118	3.67	19.	Jutland	20	5.65
4.	Bannock-			20.	Marston		
-	burn	117	3.65		Moor	20	5.00
5.	Trafalgar	104	4.59	21.	Dunkirk	19	5.74
6.	Flodden	54	5.17	22.	Marne	15	5.33
7.	Britain	52	5.96	23.	Corunna	12	6.50
8.	Agincourt	49	3.90	24.	Killie-		0.00
9.	Somme	37	5.19		crankie	12	4.33
10.	Nile	34	5.97	25.	Malplaquet	12	5.92
11.	(el) Alameir	1 30	5.50	26.	Boyne	11	4.18
12.	Blenheim	30	4.57	27.	Harlaw	$\overline{11}$	4.36
13.	River Plate	28	6.39	28.	Jena	$\tilde{11}$	6.36
14.	Ypres	27	5.63	29.	Mons	11	5.00
15.	Crecy	25	5.08	30.	Ramillies	11	5.55
16.	Stirling			31.	Austerlitz	10	7.20
	(Bridge)	25	5.24	32.	Solferino	10	5.70
17.	Prestonpans		5.10	33.	Verdun	10	5.00

NINE-Naseby, Oudenarde.

EIGHT—Leipzig.

Seven-Balaclava, Falkirk, Poitiers.

SIX-Bosworth (Field).

FIVE-Custozza, Gallipoli, Largs, Magenta, Plassey, Stalingrad.

Four-Cannae, Cape St. Vincent, Copenhagen, Sedan.

THREE-Crimea(n War), Dardanelles, Dettingen, Dunbar, Edgehill, Marengo, New Orleans, Pearl Harbor, Peterloo, Quebec, Sadowa, Saratoga, Sebastopol, Sedgemoor, Sherrifmuir, Lake Trasimene, Ulm, World War I.

- Two—Aboukir Bay, Ardennes, Arnhem, Bautze, Bunker's Hill, Dresden, Glencoe, Little Big Horn, Maldon, Mons Graupius, Moscow, the Nations, Okinawa, Paschendaale, Pinkie, Salamis, Seine, Vimy Ridge, World War II, Zeebrugge, 14 others.
- ONE-Actium, Amiens, Borodino, Camperdown, D-Day, Elbe, French Revolution, Halidon Hill, Inkerman, Leningrad, Mauzikert, Navarino, Philipshaugh, the Pyramids, Runnymede, Salisbury, Solway Moss, the Standard, Troy, Yangtze, 71 others.

			··	DIRDO			
	Response	F	SP		Response	F	SP
1.	sparrow	157	4.24	35.	magpie	25	9.36
2.	robin	148	4.91	36.	swift	25	8.04
3.	blackbird	142	5.27	37.	kingfisher	24	9.12
4.	thrush	124	5.68	38.	albatross	22	10.36
5.	eagle	119	6.73	39.	bullfinch	21	9.29
6.	swallow	99	5.32	40.	heron	21	10.14
7.	crow	93	7.62	41.	falcon	19	9.32
8.	starling	92	6.60	42.	partridge	19	10.26
9.	seagull	77	8.09	43.	puffin	19	11.16
10.	wren	71	6.35	44.	wood-		
11.	blue tit	69	8.57		pecker	19	10.21
12.	chaffinch	53	6.13	45.	grouse	18	9.33
13.	hawk	53	8.08	46.	pheasant	18	10.83
14.	owl	48	7.52	47.	curlew	17	11.41
15.	budgerigar/			48.	gannet	17	8.82
	budgie	46	9.96	49.	lapwing	17	8.00
16.	duck	43	11.91	50.	dove	16	10.81
17.	parrot	43	9.49	51.	finch	16	4.75
18.	rook	40	9.30	52.	osprey	16	8.12
19.	hen	38	10.32	53.	cormorant	15	11.40
20.	canary	37	9.41	54.	peewit	15	9.33
21.	raven	36	8.08	55.	emu	14	10.64
22.	lark	35	6.57	56.	martin	14	10.36
23.	pigeon	35	8.66	57.	great tit	13	9.00
24.	ostrich	34	9.88	58.	jay	13	6.46
25.	jackdaw	33	8.82	59.	stork	13	10.23
26.	nightingale	32	7.71	60.	flamingo	12	11.58
27.	tit	32	7.81	61.	tern	12	8.83
28.	swan	29	11.83	62.	goldfinch	11	7.27
29.	vulture	29	10.00	63.	oyster-		
30.	gull	28	9.25		catcher	11	8.55
3 1.	yellow-			64.	peacock	11	5.91
	hammer	28	9.21	65.	linnet	10	9,30
32.	cuckoo	27	7.48				
33.	goose	26	12.42	66.	moorhen	10	14.40
34.	penguin	26	10.85	67.	turkey	10	10.00
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4. BIRDS

NINE-buzzard, greenfinch, kestrel.

EIGHT-coal tit.

- SEVEN-bluebird, chicken, cockatoo, pelican, sparrow-hawk.
- SIX-guillemot, house martin, skua, wagtail.
- FIVE—capercailzie, hummingbird, kiwi, marsh tit, plover, quail, sandpiper, skylark, snipe.
- FOUR-mallard, nuthatch, ptarmigan.
- THREE—barn owl, blackback(ed), blackheaded gull, condor, hawfinch, kittiwake, lovebird, lyrebird, macaw, mavis, ringed plover, sand martin, warbler, willow warbler.
- Two-bird of paradise, blackcock, bluefinch, bustard, cardinal, chough, dipper, dodo, egret, greylag goose, grey tit, hedge sparrow, herring gull, hooded/hoodie crow, merlin, parakeet, razorbill, redshank, reed bunting, ring ousel, secretary bird, shag, shrike, snow bunting, waxwing, whimbrel, woodcock, wood pigeon.
- ONE—bearded tit, cock, corncrake, dunlin, fulmar, great northern diver, greenshank, hoopoe, kite, little grebe, missel thrush, petrel, redpoll, screech owl, snowy owl, teal, toad-in-the-hole, tufted, widgeon, yellow finch, 68 others.

		5.	CHEMICAL	ELEMI	ENTS		
	Response	F	SP		Response	F	SP
1.	hydrogen	136	3.17	20.	tin	32	8.75
2.	oxygen	130	4.33	21.	phosphorus	30	7.33
3.	sulphur	96	4.83	22.	neon	28	7.07
4.	nitrogen	79	5.41	23.	mercury	25	7.68
5.	iron	75	5.51	24.	fluorine	22	8.68
6.	copper	71	7.30	25.	bromine	21	8.43
7.	sodium	65	5.86	26.	iodine	20	9.40
8.	potassium	64	6.12	27.	manganese	19	7.79
9.	carbon	58	6.47	28.	barium	18	6.83
10.	silver	57	7.47	29.	boron	18	5.89
11.	zinc	54	7.59	30.	lithium	18	6.28
12.	helium	52	4.83	31.	platinum	17	9.41
13.	lead	51	7.78	32.	xenon	17	7.71
14.	gold	47	6.72	33.	beryllium	15	8.20
15.	magnesium		6.21	34.	uranium	15	6.27
16.	calcium	39	7.33	35.	krypton	12	7.08
17.	chlorine	39	8.36	36.	water	11	3.00
18.	argon	38	7.34	37.	silicon	10	8.70
19.	aluminium	37	7.84				

NINE-cobalt.

EIGHT-carbon dioxide, nickel, radium.

Seven—radon.

SIX-acid, nitrate, sulphuric acid.

FIVE—air, bismuth, caesium, plutonium, salt.

Four-antimony, brass, cadmium, chromium, phosphate, soda.

THREE—ammonium, arsenic, bicarbonate, bronze, H2O, hydrochloric acid, strontium.

Two-acetic acid, americanium, astatine, carbon monoxide, nitric acid, oxide, saltpetre, selenium, steel.

ONE—alkali, amino acid, calcium chloride, carbohydrate, chloroform, copper sulphate, deuterion, formaldehyde, glass, H2O2, hydrochloride, iridium, lithuanium, manganese dioxide, nitrogen oxide, potassium chloride, sugar, tellurium, thorium, zirconidum, 37 others.

6. ARTICLES OF CLOTHING

1. 2. 3. 4. 5.	Response trousers socks jacket coat shirt	F 174 166 161 152 -148	SP 6.30 7.61 6.25 5.47 7.25	23 24 25 26 27	. petticoat . suit . boots . pyjamas	F 31 28 25 22 22 21	<i>SP</i> 7.77 11.43 10.40 10.68 12.14 11.52
6.	shoes	144	7.16	28 29		$\frac{21}{21}$	10.33
7.	hat	140 140	6.11 6.28	30	÷.	19	11.63
8.	skirt	140	0.28 7.89	31		18	10.89
9. 10.	vest tie	127	7.89	32		16	11.69
11.	stockings	113	8.76	33		15	12.27
12.	blouse	103	8.62	34	. jeans	15	13.67
13.	pants	98	8.02	35		3/	10 17
14.	cardigan	91	8.52		-gown/-i		12.47
15.	dress	^{**} 89	6.43	36	-		8.80
16.	scarf	83	9.76	37		14	11.64
17.	gloves	79	9.03	38		12	11.33
18.	jumper	67	6.91	39		12	15.50
19.	waistcoat	55	10.29	40			11.75
20.	jersey	52	6.60	4		11	10.55
21.	pullover	52	8.12	4:		11	14.18
22.	bra(ssiere)	48	10.54	4	3. raincoat	11	12.64

NINE-collar, girdle, slip.

SEVEN-bathing/swimming costume, knickers, slacks.

SIX-bonnet, cravat, garter(s).

FIVE-costume, dressing gown, mac(intosh), suspender belt, tights.

FOUR—braces, cape, cloak, cufflinks, pinafore, stole, underslip, underwear. THREE—apron, briefs, gown, handkerchief, sandals, shawl, smock, suspenders, swimsuit, T-shirt, wellingtons. Two-bag, beret, bikini, bodice, housecoat, muff, panties, ribbon, waterproof, windcheater.

ONE-bloomers, breeches, drawers, earmuffs, hairnet, helmet, jabot, jodphurs, long johns, muffler, nightshirt, pantaloons, ring, rompers, shoelaces, slipover, specs, trunks, umbrella, veil, 24 others.

1. 2. 3. 4. 5. 6.	Response blue green yellow red orange black	F 198 197 195 194 180 170	<i>SP</i> 3.34 4.11 4.32 1.76 6.12 7.30	20. 21. 22. 23. 24. 25.	Response maroon gold(en) lemon navy (blue) mustard silver	F 31 26 22 22 21 21	<i>SP</i> 12.10 11.19 12.64 13.64 12.48 12.52
0. 7. 8.	purple white	162 160	8.90 8.00	25. 26. 27.	carmine	20 19	11.60 12.79
9.	brown	148	9.53	28.	vermilion	15	10.80
10. 11.	pink violet	145 135	9.42 8.02	29. 30.	amber lilac	14 14	9.29 11.29
12. 13.	indigo gray	122 115	7.59 10.68	31.	emerald (green)	13	11.69
14.	mauve	78	10.19	32.	tangeriné	13	12.38
15. 16.	turquoise crimson	63 43	12.32 11.56	33. 34.	magenta ultramarine	12 11	10.92 11.91
17.	scarlet	40	11.62	35.	lime (green)	10	14.30
18. 19.	fawn beige	32 31	11.94 11.81	36.	puce	10	11.10

7. COLOURS

NINE—tan.

EIGHT-lavender.

SEVEN-aquamarine, azure, khaki, ochre.

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SIX—buff, olive (green), rose, russet.

FIVE—ginger, rust, sepia, tartan.

- Four-brick, bronze, burnt sienna, cerise, charcoal (gray), jade (green), peach, sky (blue), wine.
- THREE—helio(trope), natural, prussian blue, royal blue, salmon (pink), sienna, umber.
- Two-amethyst, auburn, camel, cherry, cobalt (blue), mushroom, primrose, sand(y), tawny.
- ONE—apricot, bottle green, burnt ochre, chalk, claret, coffee, dun, eucalyptus, flesh, jasmine, lake, nasturtium, nigger, off-white, pea green, plum, sage, sea_egreen, slate, straw, 20 others.

> " History "History

8 WORDS BEGINNING WITH THE LETTERS 'CON'

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11.	<i>Response</i> conservative convict connect constant conduct construct construct continue concave contact convex convey	F 49 39 37 35 34 34 33 32 29 27 27	SP 2.06 3.79 5.14 4.89 4.79 4.12 5.06 5.66 5.00 5.67 5.15	 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 	<i>Response</i> contrast conference confuse consider constitution contract contrary conceive concur conflict contest	F 15 14 14 14 14 14 14 13 13 13 12	SP 4.67 4.79 5.29 5.43 3.00 5.07 6.29 4.46 5.08 4.15 5.08
					contest	12	
12.	constable	26	5.12	40.	contradict	12	6.25
13.	confer	24	7.33	41.	conversa-		
14.	confidence	23	3.13		tion	12	5.17
15.	convince	23	4.57	42.	concept	11	7.64
16.	connive	22	6.23	43.	concert	11	6.00
17.	continent	22	5.64	44.	concrete	11	6.27
18.	condemn	19	6.00	45.	confirm	11	5.00
19.	conscience	19	5.47	46.	conscious	11	5.18
20.	conclude	18	6.61	47.	constrict	11	7.55
21.	cone	18	5.67	48.	contain	11	5.64
22.	converse	18	6.22	49.	content	11	4.64
23.	construe	17	4.53	50.	convenient	11	4.64
24.	control	17	3.82	51.	concise	10	3.80
25.	concern	16	5.37	52.	confide	10	5.30
26.	condition	16	4.75	53.	confident	10	5.50
27.	conserve	16	4.94	54.	conscript	10	5.20
28.	conducive	15	5.67	55.	console	10	3.70

- NINE-concentrate, condiment, condone, conjure, consequence, consort, context, convert.
- EIGHT-conglomeration, connotation, constipation, consume, conurbation, convent, convivial.
- SEVEN—conceal, concede, concubine, condescend, confess, conflagration, constipate, continuous, contour, contraceptive, convene.
- SIX—concord, condense, condole, confiscate, conform, confound, congress, conjunction, conning(-tower), conquest, consent, conspicuous, constitute, consult, contend, continual, contravene, contrive, convenience, converge, convoy.
- FIVE--conception, conclave, conclusion, concurrence, concurrent, conduce, confusion, congratulate, congregate, congregation, conical, coniferous, consistent, Constance, constancy, consternation, consul, contaminate, contemplate, contempt, continuity, contrite, conundrum.

- Four-concession, conditional, confederate, confidential, confine, confluence, congeal, congenial, conglomerate, Connecticut, connection, conscientious, considerate, conspire, Constantinople, constrain, continental, conviction, convulse, Conway.
- THREE—conciliate, conclusive, concoction, concussion, condor, connivance, connoisseur, connotate, connote, conquer, Conrad, consecutive, consequent, consist, consumption, contemporary, contiguous, continuation, contribution, convect, convention, conventional.
- Two-concomitant, concuss, conductor, confab, confession, Congo, conjugal, con-man, Connie, consciousness, conservatory, consonant, constituency, consummate, controversy, contumely, contuse, convergent, conveyor, convocation, 17 others.
- ONE-concatenation, concupiscent, confetti, confute, congruent, conjoin, conk, connubial, consensus, consolation, conspiracy, consubstantiation, container, contested, contort, contradiction, contrasting, contusion, convalescence, convolve, 94 others.

	9.	WORDS	WHICH	RHYME	WITH 'DA	4Y'	
	Respons	e F	SP		Response	F	SP
1.	say	179	4.31	21.	Fay	34	4.29
2.	may	176	4.15	22.	flay	28	8.93
3.	lay	150	5.37	23.	slay	28	9.00
4.	pay	134	6.44	24.	bray	26	8.31
5.	ray	134	7.43	25.	day	22	5.36
6.	hay	133	4.96	26.	stray	22	8.23
7.	bay	125	4.98	27.	fey	20	5.50
8.	gay	108	5.31	28.	Kay	18	6.89
9.	way	102	8.98	29.	away	17	7.88
10.	jay	83	7.10	30.	yea(h)	15	9.33
11.	nay 🔹	69	7.36	31.	delay	14	9.00
12.	Tay	62	9.27	32.	sleigh	14	10.36
13.	play	57	5.81	33.	weigh	13	9.46
14.	neigh	54	7.67	34.	sway	12	7.83
15.	stay	54	6.80	<i>3</i> 5.	whey	12	8.42
16.	fray	51	8.51	36.	prey	11	8.18
17.	tray	46	9.63	37.	spray	11	8.36
18.	pray	45	8.69	38.	dray	10	8.60
19.	gray	41	8.34	39.	Spey	10	8.30
20.	clay	36	7.14				·····

NINE-decay. EIGHT-allay, array, brae, hey. SEVEN—cray. SIX-okay, they.

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FIVE—cay, holiday, today.

Four-belay.

THREE—convey, dismay, eh, essay, Monday.

Two-display, drey, foray, melee, osprey, portray, relay.

ONE-affray, any, assay, blae, bouquet, dolly, extremely, funnily, hairy, heyday, inveigh, many, merry, ole, Raasay, repay, splay, toupee, Tuesday, X-ray, 20 others.

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		10.	THINGS	TO DRI	INK		
	Response	F	SP		Response	F	SP
1.	whisky	191	4.65	22.	lime (juice)	32	10.12
2.	water	184	5.34	23.	advocaat	30	10.47
3.	beer	157	4.69	24.	lemon		
4.	vodka	145	6.52		(juice)	28	9.07
5.	coffee	144	6.61	25.	martini	26	8.73
6.	tea	143	5.83	26.	champagne	23	11.52
7.	lemonade	140	6.82	27.	stout	23	9.30
8.	gin	136	6.07	28.	Horlicks	21	13.38
9.	milk	135	6.15	29.	Ovaltine	21	11.43
10.	rum	106	7.21	30.	soda (water)	20	10.80
11.	wine	94	8.22	31.	tomato		
12.	brandy	73	8.67		juice	18	11.11
13.	cocoa	71	9.31	32.	ginger (ale/		
14.	sherry	62	8.69		beer)	14	12.07
15.	orange			33.	ale	13	8.23
	(juice)	61	8.66	34.	orangeade	13	9.00
16.	lager	57	9.70	35.	soup	13	8.77
17.	Coca Cola/			36.	Bovril	12	11.33
	Coke	47	9.64	37.	export	12	10.75
18.	port	43	8.40	38.	juice	12	8.33
19.	cider	40	8.42	39.	pineapple		
20.	(hot/drinkin				(juice)	11	11.45
	chocolate		10.91	40.	grapefruit		
21.	fruit juice	33	9.21		(juice)	10	11.30

NINE—burgundy, vermouth.

EIGHT-Drambuie.

Seven—liqueur.

SIX-Cinzano, shandy.

FIVE—chartreuse, limeade, Pimms, sauterne, squash, tonic (water).

FOUR-barley water, bitter lemon, Blue Lagoon, coconut juice/milk, cordial, Lucozade, medicine, orange squash, pernod, sake.

THREE—Babycham, blackcurrant (juice), cognac, Cointreau, hock, methylated spirits/meths, mineral water, Oxo, punch, schnapps, spirits.

Two-alcohol, Alka-Seltzer, aperitif, aquavit, Bacardi, benedictine, bitters, black-and-tan, black velvet, bourbon, cherry brandy, Dubonnet, lemon squash, McEwans, milk shake, Pepsi Cola, poison, red wine.

ONE-absinthe, American dry ginger, Beaujolais, blood, Campari, cocktail, evaporated milk, Guinness, kirsch, lager and lime, Mackeson, moselle, peppermint cordial, poteen, Ribena, scotch, 7-up, whey, wood alcohol, 54 others.

	11. FEMA	LE	FIRST	NAMES	(CH)	RISTIAN N	AME	ES)
	Response	F	SP			Response	F	SP
1.	Ann(e)	137			41.	Gillian	19	9.79
2.	Margaret	137			42.	Moira	18	7.39
3.	Mary	120			43.	Diane	17	11.35
4.	Elizabeth	99	8.09		44.	Judith	17	6.76
5.	Joan	83	7.24		45.	Judy	17	5.71
6.	Jean	80			46.	Marion	17	9.00
7.	Christine	73			47.	Ruth	17	9.24
8.	Jane	69	8.30		48.	Edith	16	9.31
9.	Sheila/				49.	Heather	16	8.44
	Shelagh	66	8.32		50.	Sheena	16	7.44
10.	Helen	62	8.50		51.	Wilma	16	10.50
11.	Susan	61	7.69		52.	Betty	15	12.00
12.	Kathleen	48	7.90		53.	Doris	15	10.53
13.	Patricia	48	7.62		54.	Morag	15	7.80
14.	Catherine/				55.	Wendy	15	8.33
	Katherine	47	9.17		56.	Angela	14	5.57
15.	June	46	9.78		57.	Diana	14	10.64
16.	Isabel/				58.	Jacqueline	14	9.79
	Isobel	43	8.88		59.	J(e)anette	14	7.14
17.	Alison	37			60.	Jill	14	7.14
18.	Jennifer	34	7.29		61.	Norma	14	9.43
19.	Dorothy	- 33	9.09		62.	Penelope	14	11.14
20.	Sandra	32	9.59		63.	Agnes	13	8.31
21.	Frances	31	9.61		64.	Jessie	13	11.38
22,	Eileen	30			65.	Elma	12	12.08
23.	Janet	29	9.14		66.	Lorraine	12	11.25
24.	May	29			67.	Sarah	12	12.75
25.	Elaine *	27	8.52		68.	Valerie	12	9.67
26.	Joyce	27	7.70		69.	Avril	11	12.00
27.	Carol	25	7.32		70.	Brenda	11	8.82
28.	Linda	25	7.72		71.	Doreen	11	12.09
29.	Pamela	25			72.	Hazel	11	9.18
30.	Alice	24			73.	Julia	11	9.00
31.	Pat	24			74.	Muriel	11	11.00
32.	Janice	22			75.	Nancy	11	9.72
33.	Marjory	22			76.	Pauline	11	11.27
34.	Maureen	22			77.	Rose	11	12.36
35.	Fiona	21	10.95		78.	Sally	11	9.82
36.	Rosemary	21			79.	Winifred	11	11.45
37.	Barbara	20			80.	Caroline	10	11.10
38.	Irene	20	11.00		81.	Juliet	10	9.60
39.	Lesley/				82.	Maria	10	8.80
	Leslie	20			83.	Monica	10	8.50
40.	Sylvia	20	10.20					

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- NINE-Fay, Julie, Mabel, Marilyn, Violet.
- EIGHT-Aileen, Anna, Ellen, Elspeth, Ethel, Lorna, Martha.
- SEVEN—Anita, Audrey, Beatrice, Catriona/Katriona, Grace, Hilda, Joy, Marie, Olive.
- SIX-Adele, Andrea, Annette, April, Cecelia, Celia, Dawn, Freda, Gladys, Iris, Jenny, Lindsay, Rachel, Rhoda, Rita.
- FIVE-Alexandra, Belinda, Bella, Bridget, Charlotte, Christina, Clare, Constance, Cynthia, Dora, Ella, Essel, Evelyn, Gloria, Hilary, Lil(l)ian, Louise, Lynn, Madeleine, Morna, Ray, R(h)ona, Rosalind, Shirley, Shona, Stella, Yvonne.
- Four-Annie, Beryl, Carolyn, Edna, Eleanor, Emily, Ena, Esther, Euphemia, Ishbel, Ivy, Joanna, Kate, Kay, Liz, Marlene, Molly, Nan, Nicola, Nora, Phyllis, Roberta, Samantha, T(h)eresa, Vera, Wilhelmina.
- THREE—Abigail, Ada, Amy, Anthea, Antoinette, Bertha, Cecily, Cilla, Donna, Enid, Erica, Fanny, Geraldine, Gertrude, Ida, Josephine, Kirsty, Laura, Michelle, Pam, Peggy, Penny, Petronella, Rosanne, Ruby, Veronica, Victoria, Virginia, Vivienne.
- Two-Amelia, Ava, Blanche, Clarissa, Denise, Effie, Eve, Georgina, Harriet, Inez, Jacky, Karen, Lucy, Marcelle, Mavis, Mona, Priscilla, Prudence, Susanne, Vanessa, 22 others.
- ONE—Agatha, Amethyst, Beth, Cheryl, Colette, Dolly, Ermintrude, Florence, Greta, Helena, Ingeborg, Josie, Lulu, Margo, Myrtle, Petula, Rosalyn, Sophia, Verity, 123 others.

	12. MAL	E FI	RST NAMES	(CHRI	STIAN NAI	MES	5)
	Response	F	SP		Response	F	SP
1.	John	174	4.73	19.	Donald	40	8.80
2.	James	135	7.69	20.	Kenneth	38	9.39
3.	Ia(i)n	111	7.34	21.	Douglas	37	7.59
4.	Peter	111	8.40	22.	Christopher	36	7.00
5.	David	109	7.17	23.	Robin	34	7.53
6.	George	100	7.29	24.	Stewart/		
7.	William	98	7.48		Stuart	33	9.88
8.	Michael	89	8.18	25.	Thomas	32	10.03
9.	Robert	80	7.85	26.	Colin	31	8.94
10.	Paul	64	9.42	27.	Graham/		
11.	Al(l)an	63	7.43		Graeme	31	9.97
12.	Alistair/			28.	Mark	31	11.48
	Alasdair	54	8.96	29.	Albert	29	8.34
13.	Alexander	53	9.11	30.	Henry	28	11.36
14.	Richard	52	10.29	31.	Derek	24	9.29
15.	Brian	51	7.02	32.	Jack	24	7.87
16.	Charles	51	9.24				
17.	Andrew	50	8.88	33.	Ronald	24	9.79
18.	Gordon	44	6.75	34	Ant(h)ony	23	8.65

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35. 36. 37. 38.	<i>Response</i> Fred Neil Norman Philip	F 23 22 22 22	<i>SP</i> 7.87 9.41 9.91 9.82	55. 56. 57. 58.	Jonathan	F 15 15 15 15	<i>SP</i> 8.67 11.20 9.27 12.33
39.	Alex/Alec	21	6.57	59.	Cecil	14	11.57
40.	Bill	20	8.00	60.	Den(n)is	14	7.57
41.	Frederick	20	9.05	61.	Jim	14	5.29
42.	Roger	19	10.63	62.	Martin	14	9.57
43.	Simon	19	10.79	63.	Sandy	14	8.43
44.	Arthur	18	9.56	64.	Duncan	13	8.08
45.	Harold	18	12.06	65.	Harry	13	10.08
46.	Stephen/	10		66.		13	8.85
477	Steven	18	10.11	67.	Stanley	13	8.54
47.	Eric	17	10.00	68.	Raymond	12	10.00
48.	Frank	17	9.76	69.	Adam	11	8.55
49.	Malcolm	17	8.18	70.	Bob	11	6.27
50.	Timothy	17	10.76	71.	Leslie	11	10.09
51.	Angus	16	8.25	72.	Tom	11	9.00
52.	Edward	16	9.06	73.	Gerald	10	7.00
53.	Matthew	16	9.50	74.	Hamish	10	9.80
54.	Alfred	15	10.20	75.	Samuel	10	10.10

NINE-Ewan/Ewen, Francis, Joseph, Nicol, Walter.

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EIGHT-Bruce, Geoffrey, Herbert, Luke, Mike, Nigel, Sidney, Tony.

SEVEN-Chris, Julian, Laurence/Lawrence, Leonard, Lewis, Murdo, Ringo. SIX-Bernard, Calum, Gregory, Nicholas, Ralph, Roy, Wilfrid.

FIVE-Barry, Cameron, Cliff, Cyril, Daniel, Jeremy, Oliver, Trevor.

Four-Archibald, Dick, Fergus, Godfrey, Guy, Hubert, Sean, Tim.

THREE-Bertram, Billy, Christian, Dave, Dewar, Ernest, Ferdinand, Gavin, Humphrey, Jeffrey, Louis, Magnus, Oswald, Ray, Rupert, Russell, Scott, Seamus, Terence, Terry.

Two-Arnold, Basil, Bert, Cedric, Cuthbert, Edwin, Forbes, Garry, Harvey, Hugo, Isaac, Jamie, Len, Marshall, Osbert, Pete, Rick, Rodney, Ron, Vincent, 24 others.

ONE-Adolf, Barclay, Campbell, Clive, Darrell, Edgar, Evelyn, Horace, Innes, Joe, Larry, Lucas, Max, Nathaniel, Osborne, Ronnie, Rufus, Tarquin, Tudor, Ward, 96 others. ₽ L ¢å

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1. 2. 3. 4. 5. 6. 7. 8. 9.	Response soon boon noon spoon loon goon croon June coon	F 185 128 107 96 84 82 78 59 45	SP 1.83 3.27 4.97 3.64 4.08 4.55 4.09 4.56 3.96	12. 13. 14. 15. 16. 17. 18. 19. 20.	Response dune swoon prune baboon buffoon doon toon/toun Troon cocoon	F 35 32 29 28 26 23 23 12 11	SP 5.20 3.03 5.59 4.64 4.42 4.61 5.65 6.17 4.45
10. 11.	balloon tune	42 41	4.69 4.93	21.	maroon	11	5.91

13. WORDS WHICH RHYME WITH 'MOON'

EIGHT—rune, shoon, typhoon.

Seven—room, roon'.

SIX-bassoon, spitoon.

FIVE-lagoon, loom, lune.

FOUR-Dunoon, lampoon, moon, platoon, pontoon, strewn, tycoon.

THREE-abune, afternoon, Doune, festoon, monsoon, Scone, tomb.

Two-boom, broom, cartoon, doom, raccoon, ruin, saloon, stoon.

ONE-attune, Brigadoon, broon, chewn, doubloon, dragoon, fortune, gloom, harpoon, hewn, honeymoon, opportune, quadroon, Sassoon, Walloon, womb, woon, zoom.

14. WORDS OF ANY LENGTH MADE UP FROM THE LETTERS MORTAL

(Each letter may be used once only in any one word)

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	Response	F	SP		Response	F	SP
1.	rat	127	3.52	13.	mar	36	4.72
2.	rot	123	3.37	14.	malt	35	4.43
3.	mat	94	3.65	15.	roam	34	4.38
4.	tar	87	3.48	16.	moat	33	4.70
5.	lot	69	4.20	17.	at	24	4.00
6.	moral	55	2.22	18.	arm	22	5.45
7.	ram	52	4.65	19.	tor	22	3.73
8.	Tom	47	3.60	20.	to	21	4.24
9.	mart	45	4.09	21.	or	20	2.90
10.	tram	39	4.51	22.	oral	15	3.73
11.	loam	38	4.53	23.	alm	12	5.83
12.	art	36	4.47	24.	rota	11	4.09

NINE—atom, oat. EIGHT—marl, tam. SEVEN—am, oar.

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SIX—a. FIVE—mort, mot. FOUR—molar, mortal. THREE—Roma. Two—lo, ta, trol. ONE—amor, atol, lam, mal, moal, molt, mor, o, ort, roat, tal.

15. MUSICAL INSTRUMENTS

	Response	F	SP		Response	F	SP	
1.	piano	184	4.08	25.	banjo	36	8.22	
2.	violin	169	4.06	26.	mouth			
3.	trumpet	154	7.19		organ	34	9.79	
4.	guitar	152	5.79	27.	harpsichord	32	10.12	
5.	drum	149	7.69	28.	cornet	29	10.14	
6.	flute	137	7.37	29.	horn	29	8.41	
7.	cello	119	6.36	30.	xylophone	29	11.55	
8.	clarinet	112	7.49	31.	recorder	25	10.36	
9.	trombone	110	8.76	32.	harmonica	22	8.68	
10.	oboe	108	6.67	33.	mandolin	22	9.82	
11.	violin	96	7.10	34.	tambourine	20	10.60	
12.	double bas	s 87	8.39	35.	fiddle	18	5.44	
13.	harp	86	7.57	36.	lyre	18	8.44	
14.	sax(ophone	e) 85	8.15	37.	cor anglais	17	11.65	
15.	organ	78	8.94	38.	tympani/			
16.	bassoon	68	8.63		timps	16	10.06	
17.	French			39.	bugle	15	8.87	
	horn	61	10.08	40.	zither	13	13.23	
18.	triangle	55	9.80	41.	euphonium	12	10.00	
19.	cymbals	48	10:33	42.	lute	12	9.42	
20.	tuba	46	9.02	43.	castanets	11	11.55	
21.	piccolo	45	10.18	44.	Jew's harp	11	10.91	
22.	bass	42	8.50	45.	vibraphone/			
23.	bagpipes	41	9.32		vibes	10	10.00	
24.	accordion	36	8.33	 _				

NINE-ukulele.

SEVEN—spinet.

SIX—whistle.

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FIVE-concertina, pianola.

Four-kettle drum, penny whistle, tin whistle.

THREE-bongos, fife, glockenspiel, pipes, side drum.

Two-alto sax, bass fiddle, bass guitar, clavichord, double bassoon, dulcimer, flugelhorn, harmonium, maraccas, melodeon, piano accordion, sousaphone, viol. 181 1

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위(1)(영 - ⁶⁴)() ONE-autoharp, baritone sax, bass clarinet, basset horn, bombardon, bousouki, celeste, chanter, Chinese block, comb, contrabassoon, flageolet, Hammond organ, mellophonium, musical box, pipe organ. post-horn, sax-horn, snares, tenor sax, tomtom, tubular bells, woodwinds.

	Response	F	SP		Response
1.	The Times		2.68	13.	
2.	Daily				Herald
	Express	160	2.31	14.	Daily
3.	(Mancheste	er)			Sketch
	Guardian	Í28	3.80	15.	Sunday
4.	Daily Mail	117	4.79		Times
5.	The Scots-			16.	Sunday
	man	114	4.95		Post
6.	Daily Tele-			17.	Glasgow
	graph	111	3.90		Herald
7.	Daily			18.	The People
	Mirror	108	5.13	19.	Financial
8.	The Sun	100	5.86		Times
9.	The			20.	Sunday
	Observer	96	5.09		Express
10.	Daily			21.	New States-
	Worker	61	6.80		man
11.	News of the	2		22.	Sunday Tele
	World	61	6.57		graph
12.	Daily				
	Record	55	5.75		

16. NATIONAL (NOT LOCAL) NEWSPAPERS

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31

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30

29

17

11

11

Tele-

SP

6.08

6.15

6.03

7.26

6.43

7.50

6.31

7.06

5.27

7.91

EIGHT-Sunday Mirror.

SEVEN—Spectator, Sunday Pictorial.

SIX-New Daily, Press and Journal, Reveille, Sunday Mail.

THREE—Daily News, Evening Express, Sunday Citizen.

Two-Economist, Figaro, Gazette, New York Times, People's Journal, Racing News, Scottish Daily Mail, Sunday Sketch.

ONE-Courier, Daily Chronicle, Daily Echo, Dispatch, Evening Citizen, Evening Standard, Evening Star, France Soir, Globe, Hansard, Listener, Le Monde, News Chronicle, New Musical Express, Paris Soir, Pravda, Scottish Express, Sportsman, Stock Exchange Gazette, Sunday Dispatch, Tatler, Time, Tribune, Weekly News.

17. NAMES APPLIED TO PEOPLE TO INDICATE THEIR OCCUPATION OR PROFESSION

17. engineer29 6.52 43. electrician11 6.09 18. farmer29 8.00 44. mechanic11 9.45 19. tailor29 4.97 45. priest11 5.72 20. banker25 5.16 46. student11 6.27 21. soldier24 6.50 47. blacksmith10 6.80 22. chemist23 6.91 48. bus driver10 6.80 23. labourer23 7.96 49. journalist10 8.10 24. surgeon23 5.43 50. pilot10 8.10 25. psycho-51. shoemaker10 8.40 logist22 6.50 52. smith10 3.70	1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15.	Response doctor teacher lawyer baker lecturer butcher professor grocer nurse joiner carpenter minister plumber sailor (bus) con- ductor dentist	<i>F</i> 153 135 83 61 56 52 50 40 40 36 33 32 32 31 30 30	SP 2.84 3.84 4.53 5.87 6.96 5.27 5.04 6.70 5.67 5.25 5.30 4.91 6.09 6.97 7.53 4.90	 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 	<i>Response</i> policeman clerk shopkeeper postman driver painter scientist solicitor architect artist builder accountant fisherman actor mason bricklayer dustman	F 21 19 19 17 16 15 15 14 14 13 13 12 12 11 11	<i>SP</i> 6.67 7.79 6.95 6.35 6.81 7.07 6.73 5.13 6.79 7.79 6.00 7.46 7.62 8.42 8.33 5.64 6.27
10. joiner36 5.25 35. artist14 7.79 11. carpenter33 5.30 36. builder14 6.00 12. minister32 4.91 37. accountant13 7.46 13. plumber32 6.09 38. fisherman13 7.62 14. sailor31 6.97 39. actor12 8.42 15. (bus) con- ductor40. mason12 8.33 ductor30 7.53 41. bricklayer11 5.64 16. dentist30 4.90 42. dustman11 6.27 17. engineer29 6.52 43. electrician11 6.09 18. farmer29 8.00 44. mechanic11 9.45 19. tailor29 4.97 45. priest11 5.72 20. banker25 5.16 46. student11 6.27 21. soldier24 6.50 47. blacksmith10 6.80 22. chemist23 6.91 48. bus driver10 6.80 23. labourer23 5.43 50. pilot10 8.10 24. surgeon23 5.43 50. pilot10 8.10 25. psycho-51. shoemaker10 8.40		v						
11.carpenter33 5.30 36.builder14 6.00 12.minister32 4.91 37.accountant13 7.46 13.plumber32 6.09 38.fisherman13 7.62 14.sailor31 6.97 39.actor12 8.42 15.(bus) con-40.mason12 8.33 ductor30 7.53 41.bricklayer11 5.64 16.dentist30 4.90 42.dustman11 6.27 17.engineer29 6.52 43.electrician11 6.09 18.farmer29 8.00 44.mechanic11 9.45 19.tailor29 4.97 45.priest11 5.72 20.banker25 5.16 46.student11 6.27 21.soldier24 6.50 47.blacksmith10 6.80 22.chemist23 6.91 48.bus driver10 6.80 23.labourer23 5.43 50.pilot10 8.10 24.surgeon23 5.43 50.pilot10 8.40								
12.minister324.9137.accountant137.4613.plumber326.0938.fisherman137.6214.sailor316.9739.actor128.4215.(bus) con-40.mason128.33ductor307.5341.bricklayer115.6416.dentist304.9042.dustman116.2717.engineer296.5243.electrician116.0918.farmer298.0044.mechanic119.4519.tailor294.9745.priest115.7220.banker255.1646.student116.2721.soldier246.5047.blacksmith106.8022.chemist236.9148.bus driver106.8023.labourer235.4350.pilot108.1024.surgeon235.4350.pilot108.1025.psycho-51.shoemaker108.40								
13.plumber32 6.09 38.fisherman13 7.62 14.sailor31 6.97 39.actor12 8.42 15.(bus) con- ductor40.mason12 8.33 ductor30 7.53 41.bricklayer11 5.64 16.dentist30 4.90 42.dustman11 6.27 17.engineer29 6.52 43.electrician11 6.09 18.farmer29 8.00 44.mechanic11 9.45 19.tailor29 4.97 45.priest11 5.72 20.banker25 5.16 46.student11 6.27 21.soldier24 6.50 47.blacksmith10 6.80 22.chemist23 6.91 48.bus driver10 8.10 24.surgeon23 5.43 50.pilot10 8.10 25.psycho-51.shoemaker10 8.40								
14.sailor31 6.97 39.actor12 8.42 15.(bus) con- ductor30 7.53 40.mason12 8.33 ductor30 7.53 41.bricklayer11 5.64 16.dentist30 4.90 42.dustman11 6.27 17.engineer29 6.52 43.electrician11 6.09 18.farmer29 8.00 44.mechanic11 9.45 19.tailor29 4.97 45.priest11 5.72 20.banker25 5.16 46.student11 6.27 21.soldier24 6.50 47.blacksmith10 6.80 22.chemist23 6.91 48.bus driver10 6.80 23.labourer23 5.43 50.pilot10 8.10 24.surgeon23 5.43 50.pilot10 8.10 25.psycho-51.shoemaker10 8.40								
15.(bus) con- ductor40.mason128.33ductor307.5341.bricklayer115.6416.dentist304.9042.dustman116.2717.engineer296.5243.electrician116.0918.farmer298.0044.mechanic119.4519.tailor294.9745.priest115.7220.banker255.1646.student116.2721.soldier246.5047.blacksmith106.8022.chemist236.9148.bus driver106.8023.labourer235.4350.pilot108.1024.surgeon235.4350.pilot108.40								
ductor 30 7.53 $41.$ bricklayer 11 5.64 16.dentist 30 4.90 $42.$ dustman 11 5.64 16.dentist 30 4.90 $42.$ dustman 11 6.27 17.engineer 29 6.52 $43.$ electrician 11 6.09 18.farmer 29 8.00 $44.$ mechanic 11 9.45 19.tailor 29 4.97 $45.$ priest 11 5.72 20.banker 25 5.16 $46.$ student 11 6.27 21.soldier 24 6.50 $47.$ blacksmith 10 6.80 22.chemist 23 6.91 $48.$ bus driver 10 6.80 23.labourer 23 5.43 $50.$ pilot 10 8.10 24.surgeon 23 5.43 $50.$ pilot 10 8.40			31	6.97		actor		
16. dentist30 4.90 $42.$ dustman11 6.27 17. engineer29 6.52 $43.$ electrician11 6.09 18. farmer29 8.00 $44.$ mechanic11 9.45 19. tailor29 4.97 $45.$ priest11 5.72 20. banker25 5.16 $46.$ student11 6.27 21. soldier24 6.50 $47.$ blacksmith10 6.80 22. chemist23 6.91 $48.$ bus driver10 6.80 23. labourer23 5.43 $50.$ pilot10 8.10 24. surgeon23 5.43 $50.$ pilot10 8.40	15.		• •					
17. engineer29 6.52 $43.$ electrician 11 6.09 18. farmer29 8.00 $44.$ mechanic 11 9.45 19. tailor29 4.97 $45.$ priest 11 5.72 20. banker25 5.16 $46.$ student 11 6.27 21. soldier24 6.50 $47.$ blacksmith 10 6.80 22. chemist23 6.91 $48.$ bus driver 10 6.80 23. labourer23 7.96 $49.$ journalist 10 8.10 24. surgeon23 5.43 $50.$ pilot 10 8.10 25. psycho- $51.$ shoemaker 10 8.40								
18.farmer298.0044.mechanic119.4519.tailor294.9745.priest11 5.72 20.banker25 5.16 46.student11 6.27 21.soldier24 6.50 47.blacksmith10 6.80 22.chemist23 6.91 48.bus driver10 6.80 23.labourer23 7.96 49.journalist10 8.10 24.surgeon23 5.43 $50.$ pilot10 8.10 25.psycho- $51.$ shoemaker10 8.40						dustman	11	6.27
19. tailor29 4.97 $45.$ priest 11 5.72 20. banker25 5.16 $46.$ student 11 6.27 21. soldier24 6.50 $47.$ blacksmith 10 6.80 22. chemist23 6.91 $48.$ bus driver 10 6.80 23. labourer23 7.96 $49.$ journalist 10 8.10 24. surgeon23 5.43 $50.$ pilot 10 8.10 25. psycho- $51.$ shoemaker 10 8.40						electrician	11	6.09
20.banker25 5.16 46.student11 6.27 21.soldier24 6.50 47.blacksmith10 6.80 22.chemist23 6.91 48.bus driver10 6.80 23.labourer23 7.96 49.journalist10 8.10 24.surgeon23 5.43 50.pilot10 8.10 25.psycho-51.shoemaker10 8.40					44.	mechanic	11	9.45
21. soldier246.5047. blacksmith106.8022. chemist236.9148. bus driver106.8023. labourer237.9649. journalist108.1024. surgeon235.4350. pilot108.1025. psycho-51. shoemaker108.40					45.	priest	11	5.72
22. chemist 23 6.91 48. bus driver 10 6.80 23. labourer 23 7.96 49. journalist 10 8.10 24. surgeon 23 5.43 50. pilot 10 8.10 25. psycho- 51. shoemaker 10 8.40					46.	student	11	6.27
22. chemist236.9148. bus driver106.8023. labourer237.9649. journalist108.1024. surgeon235.4350. pilot108.1025. psycho-51. shoemaker108.40		soldier		6.50	47.	blacksmith	10	6.80
23. labourer237.9649. journalist108.1024. surgeon235.4350. pilot108.1025. psycho-51. shoemaker108.40		chemist		6.91	48.	bus driver	10	6.80
24. surgeon 23 5.43 50. pilot 10 8.10 25. psycho- 51. shoemaker 10 8.40		labourer	23	7.96	49.	journalist	10	8.10
25. psycho- 51. shoemaker 10 8.40			23	5.43	50.	pilot		
	25.	psycho-				- - .		
		logist	22	6,50				

NINE-candlestick maker, vet(erinary surgeon).

- EIGHT—businessman, judge, manager, milkman, psychiatrist, salesman, writer.
- SEVEN-barrister, confectioner, fishmonger, greengrocer, newsagent.

SIX-cobbler, dancer, navvy, physicist, secretary.

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FIVE—author, director, docker, miner, musician, shop assistant, singer, tinker, vicar.

Four-barber, bookmaker/bookie, butler, chauffeur, civil servant, cleaner, clergyman, cooper, draper, draughtsman, footballer, forester, ironmonger, librarian, officer, optician, publican, scavenger/scaffy, (chimney-)sweep, typist, waiter. .

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- THREE—advocate, airman, barman, cabinetmaker, coalman, economist, fireman, fruiterer, gardener, hairdresser, merchant, parson, plasterer, playwright, preacher, railwayman, refuse collector, reporter, roadman, sheriff, sister, slater, teller, weaver, wheelwright.
- Two-actuary, attendant, C.A., chiropodist, collier, cook, doorman, executive, glazier, manufacturer, opthalmologist, politician, prostitute, shipwright, spinner, stockbroker, tax collector, welder, welfare worker, windowcleaner, 34 others.
- ONE-almoner, beatnik, caretaker, clown, distiller, filleter, gamekeeper, housewife, laboratory technician, matron, model, orderly, poet, proprietor, retired, sanitary inspector, steward, traffic warden, tycoon, warden, 136 others.

18. PLAYS BY SHAKESPEARE

	Response	F	SP		Response I	F	SP
1.		63	3.24	17.	Much Ado		
2.	Macbeth 1	59	3.53		About	_	
3.	A Midsumm	er			Nothing 5		6.31
	Night's			18.	\$		
		158	5.13		·• ···· · · ·	39	7.38
4.	Othello 1	124	3.81	19.	Antony and		
5.	Twelfth				Cleopatra 2	27	6.93
	Night 1	100	5.07	20.	Troilus and		
6.	Julius					26	5.92
	Caesar	92	5.16	21.	Henry IV		
7.	Romeo and					22	5.86
	Juliet	87	4.99	22.	Henry IV		
8.	As You					22	6.86
	Like It	86	5.55	23.	Love's Labou		c o ¹
9.	Merchant of	2				20	6.05
	Venice	82	6.15	24.	All's Well Th		
10.	King Lear	77	4.95		Ends Well		6.21
11.	Richard II	75	6.51	25.	00220	13	6.08
12.	Henry V	65	7.05	26.			
13.	Henry IV	61	6.56			12	5.33
14.	Winter's			27.			
	Tale	61	5.84			11	6.55
15.	Tempest	60	6.27	28.	Henry VIII	10	8.20
16.	Richard III	55	7.65	, ,,			

NINE—Richard I. EIGHT—Henry VI, Merry Wives of Windsor. SIX—Cymbeline, Henry VII, Two Gentlemen of Verona. FOUR—Comedy of Errors.

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THREE—Henry V Part 1, Henry V Part 2, Rape of Lucrece, Richard IV. Two-King John, Pericles.

ONE-Beatrice and Benedick, Cassandra, Falstaff, Forest of Arden, Henry III, Henry V Part 3, Henry V Part 4, Henry VI Part 1, Henry VI Part 2, Henry VI Part 3, Richard, Some Came Running, Titus Andronicus, What You Will.

1. 2. 3. 4. 5. 6. 7. 8.	<i>Response</i> diamond ruby emerald sapphire amethyst opal pearl topaz	F 198 195 164 141 86 84 72 38	<i>SP</i> 1.69 2.47 3.64 3.62 4.65 4.96 5.14 5.82	9. 10. 11. 12. 13. 14. 15. 16.	Response garnet onyx jade turquoise cairngorm agate aquamarine bloodstone	F 36 29 26 24 19 16 16	SP 6.22 5.75 5.45 6.92 5.79 5.58 6.37 8.25	į	
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19. PRECIOUS STONES

NINE-jet.

EIGHT-moonstone, quartz, zircon.

SEVEN-beryl.

SIX-jasper, lapis lazuli.

FIVE—gold.

Four-amber, marquisite.

THREE—crystal, jewel, peridot, silver.

Two-coral, cornelian, gem, gold nugget, jacynth, jasmine, platinum, rhinestone, Rolling Stones, tourmaline, uranium.

ONE-alexandrite, aragonite, concrete, diadem, ermine, firestone, Maidstone, marble, mother-of-pearl, rock crystal, sardonyx, solitaire, zenith.

20. PREPOSITIONS

	Response	F	SP		Response	F	SP
1.	in	134	3.58	9.	over	75	7.65
2.	to	125	3.96	10.	for	71	6.38
3.	on	116	4.44	11.	beside	70	8.97
4.	by	110	4.89	12.	above	64	9.00
5.	with	101	5.45	13.	near	60	8.47
6.	from	100	5.98	14.	below	58	9.66
7.	under -	90	7.59	15.	of	54	5.50
8.	at	80 🕫	4.01	16.	into	48	7.71

W. P. BROWN

Response	F	SP		Response	F	SP
before	45	7.58	33.	around	17	7.65
out	45	5.24	34.	opposite	17	10.76
through	41	9.49	35.	when	17	6.29
after	39	8.03	36.	without	17	10.12
beneath	33	10.06	37.	round	16	9.06
up	33	7.36	38.	and	15	2.20
behind	32	9.31	39.	off	15	7.20
inside	29	9.48	40.	but	14	2.50
towards	27	7.93	41.	across	13	8.46
against	26	9.81	42.	SO	13	6.15
down	26	8.58	43.	as	12	5.92
outside	24	9.67	44.	beyond	11	7.55
between	23	10.65	45.	where	11	7.18
upon	22	8.05	46.	far	10	9.20
onto	19	7.63	47.	since	10	11.50
along	17	11.24	48.	within	10	10.30
	before out through after beneath up behind inside towards against down outside between upon onto	before45out45through41after39beneath33up33behind32inside29towards27against26down26outside24between23upon22onto19	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	before 45 7.58 $33.$ out 45 5.24 $34.$ through 41 9.49 $35.$ after 39 8.03 $36.$ beneath 33 10.06 $37.$ up 33 7.36 $38.$ behind 32 9.31 $39.$ inside 29 9.48 $40.$ towards 27 7.93 $41.$ against 26 9.81 $42.$ down 26 8.58 $43.$ outside 24 9.67 $44.$ between 23 10.65 $45.$ upon 22 8.05 $46.$ onto 19 7.63 $47.$	before 45 7.58 $33.$ aroundout 45 5.24 $34.$ oppositethrough 41 9.49 $35.$ whenafter 39 8.03 $36.$ withoutbeneath 33 10.06 $37.$ roundup 33 7.36 $38.$ andbehind 32 9.31 $39.$ offinside 29 9.48 $40.$ buttowards 27 7.93 $41.$ against 26 9.81 $42.$ down 26 8.58 $43.$ outside 24 9.67 $44.$ between 23 10.65 $45.$ upon 22 8.05 $46.$ faronto 19 7.63	before 45 7.58 $33.$ around 17 out 45 5.24 $34.$ opposite 17 through 41 9.49 $35.$ when 17 after 39 8.03 $36.$ without 17 beneath 33 10.06 $37.$ round 16 up 33 7.36 $38.$ and 15 behind 32 9.31 $39.$ off 15 inside 29 9.48 $40.$ but 14 towards 27 7.93 $41.$ across 13 against 26 9.81 $42.$ so 13 down 26 8.58 $43.$ as 12 outside 24 9.67 $44.$ beyond 11 between 23 10.65 $45.$ where 11 upon 22 8.05 $46.$ far 10 onto 19 7.63 $47.$ since 10

NINE—among, because, close, if, which.

EIGHT-about, in front of.

SEVEN-next, out of, then.

SIX-away, it, until.

FIVE—because of, he, she, therefore, unto, you.

FOUR-alongside, although, during, how, I, past, there, they, why.

THREE-amongst, close by, hers, his, now, that, who.

Two-according to, adjacent, also, an, aside, except, far from, however, in spite of, me, mine, my, once, on top of, or, them, underneath, versus, what, while, whose, yours.

ONE-along with, any, betwixt, consequently, here, him, in between, its, less, next to, ours, some, these, though, together, twice, via, wherefore, whilst, whom, 38 others.

21. BRITISH PRIME MINISTERS

		F	SP		Response	F	SP
1.	Wilson	186	3.60	9.	Lloyd		
2.	Churchill	184	4.68		George	93	6.87
3.	Macmillan	168	4.45	10.	Pitt	78	6.00
4.	(Douglas-)			11.	Chamber-		
	Home	166	4.39		lain	61	7.41
5.	Eden	150	5.35	12.	MacDonald	58	7.50
6.	Gladstone	119	5.37	13.	Walpole	57	5.89
7.	Disraeli	109	5.37	14.	Palmerston	54	7.44
8.	Attlee	96	6.05	15.	Peel	49	6.35

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	Asquith Pitt the	43	7.23	Baldwin Wellington	 7.18 8.87
	Younger		6.65	Aberdeen	8.92
18.	Pitt the Elder		(==		
	Chatham	30	0.00		

NINE-Salisbury.

EIGHT-Balfour, Campbell-Bannerman.

SEVEN-Canning.

SIX-Bonar Law, North.

FIVE-Grey.

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Four—Fox.

THREE-Gaitskell, Russell.

Two-Brown, Cromwell, Liverpool, Lloyd, Melbourne, Rosebery.

ONE-Addington, Bonham Carter, Burke, Bute, Castlereagh, Curzon, De Gaulle, Derby, Grenville, Lindsay, Macleod, Peel the Elder, Peel the Younger, Perceval, Rockingham, Shaftesbury, Shelburne, Wilberforce.

22. WORDS BEGINNING WITH 'S' AND ENDING WITH 'L'

	Respon	se	F	SP			Response	F	SP
1.	sell		93	3.22		16.	spoil	25	6.04
2.	sill		85	3.34		17.	swell	25	4.96
3.	still		70	4.24		18.	school	24	4.12
4.	soul		66	2.76		19.	shell	24	4.54
5.	sail		64	2.75		20.	skill	23	4.65
6.	stall	¢	54	4.74		21.	snail	22	4.23
7.	seal		51	3.04		22.	shoal	21	4.90
8.	spill		50	5.70		23.	spool	20	4.35
9.	small		39	3.74		24.	sĥawl	17	4.18
10.	shell		36	4.06		25.	steel	15	5.47
11.	smell		35	4.57		26.	swill	15	5.00
12.	spell		32	4.84	:	27.	shrill	14	4.50
13.	soil		28	4.32		28.	sandal	11	2.73
14.	steal		28	5.00		29.	stroll	11	4.64
15.	stool		27	4.52		30.	skull	10	4.60

EIGHT—scrawl. SEVEN—scroll, sol, sprawl, squall. SIX—sentinel, several, skirl. FIVE—shiel, shovel, sorrel.

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FOUR-Saul, scowl, scull, sensual, signal, sinful, sisal, snarl, social.

THREE—Sal, satchel, sentimental, snell, sorrowful, spiral, Spital, squeal, supernatural, swirl, symbol.

Two-scandal, sepal, sexual, skol, spiel, spiteful, squirrel, stoll, sundial.

ONE-sacredotal, Samuel, satirical, scalpel, sceptical, schoolgirl, seminal, sensational, sibyl, soleil, Solihull, sonell, soulful, spall, spinal, squill, supernal, swivel, symptomatical, systematical, 11 others.

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	Response	F	SP		Response	F	SP
1.	rugby/	-		25.	fencing	32	9.97
	rugger	182	4.51	26.	soccer	32	3.75
2.	tennis	173	4.69	27.	judo	31	8.81
3.	football	171	3.38	28.	motor-/car-	_	
4.	hockey	151	5.01		racing	28	10.57
5.	swimming	148	6.61	29.	rowing	28	8.68
6.	cricket	124	4.85	30.	volleyball	22	10.32
7.	badminton	103	7.24	31.	water polo	22	10.05
8.	squash	100	7.39	32.	diving	20	10.00
9.	netball	85	7.00	33.	sailing	19	10.21
10.	ski-ing	72	8.86	34.	ice-hockey	17	9.94
11.	basketball	71	8.55	35.	fishing	16	8.25
12.	lacrosse	70	8.70	36.	jumping	16	9.75
13.	boxing	66	9.76	37.	shooting	16	10.75
14.	athletics	61	8.64	38.	bowling	15	10.67
15.	table tennis		9.08	39.	climbing	15	10.13
16.	golf	55	6.29	40.	tiddlywinks	15	10.20
17.	shinty	55	8.38	41.	croquet	14	9.64
18.	wrestling	52	10.33	42.	snooker	14	7.71
19.	running	46	9.07	43.	cycling	13	10.85
20.	polo	45	10.67	44.	discus	11	10.27
21.	(ice) skating	g 44	9.39	45.	racing	11	9.36
22.	(horse)			46.	rounders	11	10.09
	riding	43	9.58	47.	high jump	10	9.00
23.	baseball	36	9.17	48.	hunting	10	11.00
24.	horse			49.	long jump	10	10.30
	racing	34	10.51				

EIGHT—billiards, curling, dog-/greyhound-racing, horse-/show-jumping. SEVEN—archery, javelin, toboganning, weight-lifting.

SIX—water ski-ing.

FIVE—bobsleighing, bowls, darts, gymnastics, hiking, motor-cycle racing, pelota, sprinting, trampolining.

FOUR-fives, shot-putt.

24.

THREE—boating, cross-country, gliding, handball, hurdling, motocross, motor cycling, mountaineering, quoits, Rugby League, ten-pin bowling, walking.

Two—American football, angling, canoeing, hill-walking, hurley, pingpong, pole-vaulting, putting, rock-climbing, Rugby Union, sledging, softball, steeple-chasing, surfing, throwing the hammer.

ONE—bird watching, boat racing, chess, dancing, driving, game hunting, go-kart, ju-jitsu, kendo, motor scrambling, plane racing, pony trekking, pot-holing, roller-skating, scrambling, sex, surface diving, throwing, yachting, yoga, 13 others.

THINGS THAT ARE LARGE AND FLAT

	Response	F	SP		Response	F	SP
1.	floor	87	3.92	16.	sea	19	3.79
2.	table (top)	77	2.73	17.	lake	16	4.06
3.	ceiling	48	4.81	18.	lawn	15	4.93
4.	blackboard	45	3.69	19.	window	15	6.00
5.	wall	43	4.26	20.	ice-/skating		
6.	pancake	33	2.30		rink	14	3.93
7.	roof	33	5.27	21.	bed	13	5.15
8.	field	30	3.47	22.	playing field	/	
9.	football pitc	:h/			ground	13	3.38
	field	Ż9	3.03	23.	tennis court	13	5.54
10.	plain	29	2.55	24.	door	12	4.92
11.	plate	29	1.69	25.	airfield	11	3.55
12.	desk (top)	25	3.40	26.	(sheets of)		
13.	plateau	24	3:67		paper	11	2.91
14.	road	23	4.83	27.	desert	10	4.60
15.	carpet a	22	4.86	28.	pavement	10	3.70

NINE—saucer.

EIGHT—cricket pitch, feet.

SEVEN—beach, flying saucer, record, rug, rugby pitch/field, (some) stones. SIX—aerodrome, board, dance floor/hall, screen.

FIVE—bench, bowling green/rink, ocean, paving stone, runway, tray.

FOUR-airstrip, book, frying pan, hockey pitch, LP, map, prairie, sports ground, (city/town) square.

THREE—billiard table, bowling alley, (sheets of) cardboard, chair, concrete slab, counter, (panes/sheets of) glass, lid, manhole cover, mat, news-paper, quadrangle, (expanse/surface of) water.

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- Two—aircraft wing, Air Ministry roof, blanket, disc, flagstone, hat, linoleum, parade ground, picture, plaice, platform, policeman's feet, pouffe, sheet metal, shelf, stadium, stage, swimming pool, tablecloth, tombstone, 16 others.
- ONE—arena, box, canvas, cloud, deck, electric blanket, flatfish, gas works, half-crown, Ibrox Park, landscape, millstone, pamphlet, platter, racecourse, Sahara Desert, skate, Table Mountain, the thoughts in my head at present, warming pan, 102 others.

25. TOWNS IN GREAT BRITAIN

	7	-	G D		n	'n	d ک
1	Response	F_{170}	SP	0.1	Response	F_{17}	<i>SP</i> 8.24
1.	Aberdeen	176	3.01	31.	Sheffield	17	0.24
2.	Glasgow	160	4.84	32.	Fraser-	16	5.31
3.	Edinburgh	156	4.74	22	burgh Balfast	16 15	10.00
4.	London	151	4.65	33.	Belfast	15	10.00
5.	Manchester		7.73	34.	Fort William	15	11.13
6.	Dundee	105	6.05	35.	Oban	15	10.07
7. 8.	Inverness	98	8.76	<i>35.</i> 36.		15	9.47
	Liverpool	89	8.54	30. 37.	Plymouth	13	9.47 9.50
9.	Birming-	06	7.33	37. 38.	Doncaster Durham	14	10.21
10.	ham Dorth	86 58	7.55	30. 39.	Exeter	14	11.21
10. 11.	Perth	58 57	9.12	39. 40.	St Andrews	14	8.86
11.12.	Newcastle Leeds		9.12 8.45	40. 41.	Leicester	14	11.00
12.13.	Bristol	51 42	8.4 <i>3</i> 9.17	41. 42.	Montrose	13	7.69
15. 14.	Cardiff	42 36	9.17 10.42	42. 43.	Nairn	13	6.38
14.15.	York	30 36	10.42	43. 44.	Nottingham		8.31
			8.06	44. 45.		13	10.92
16. 17.	Stirling Carlisle	32		45. 46.	Paisley Portsmouth	13	10.92
	-	30	10.00	40. 47.	Arbroath	12	9.50
18.	South-	20	10.00	48.		$12 \\ 12$	9.30 12.25
19.	ampton Hull	30	12.20 10.31	40. 49.	Crewe Preston	12	9.58
19. 20.		29		49. 50.	Thurso	12	9.50 9.50
20. 21.	Elgin	28	. 7.64	51.	Banff	12	8.36
$\frac{21}{22}$.	Swansea	25	10.36	52.	Forfar	11	10.73
	Stonehaven		7.67	52. 53.		11	9.73
23.	Ayr	21	10.33	55. 54.	Grimsby Bradford	10	10.20
24.	Brighton	21	10.24	5 4 . 55.	Chester	10	10.20
25. 26.	Oxford Determent	20	7.90	55. 56.	Dumfries	10	11.70
	Peterhead	20	6.80				8.40
27. 28.	Wick	20	8.75	57. 58.	Halifax	10	0.40
	Cambridge	19 19	7.63	50.	Wolver-	10	8.60
29. 20	Blackpool	18 18	12.17		hampton	10	0.00
30.	Dover	19	11.50				

NINE—Reading.

- EIGHT-Coventry, Dunfermline, Greenock, Huddersfield, Huntly, Norwich, Peterborough, Torquay.
- SEVEN-Canterbury, Darlington, Forres, Kilmarnock, Luton.
- SIX-Aberystwyth, Berwick, Bolton, Bournemouth, Bury, Derby, Dublin, Ellon, Falkirk, Inverurie, Kirkcaldy, Lincoln.
- FIVE—Bangor, Bath, Blackburn, Brechin, Burnley, Hastings, Hawick, Keith, Motherwell, Peebles, Stoke, Stornoway, Yarmouth.
- Four-Bilston, Dingwall, Dunbar, Galashiels, Gloucester, Grantown, Helensburgh, Lanark, Portree, Southend, Stafford, Tain, Tipton, Troon, Turriff, Ullapool, Walsall.
- THREE—Airdrie, Aldershot, Alloa, Banchory, Buckie, Colchester, Deal, Golspie, Gornal, Hamilton, Ipswich, Jedburgh, Kelso, Kendal, Lerwick, Margate, Newport, Oldham, Penzance, Salisbury, Selkirk, Shrewsbury, Slough, Southport, Stockport, Stockton, Wallasey, Winchester, Worcester.
- Two-Aviemore, Ballater, Bury St Edmunds, Coatbridge, Dumbarton, Dunoon, Eastbourne, Gourock, Lancaster, Lossiemouth, Melrose, Middlesbrough, Orpington, Rotherham, Rothesay, St Anne's, Selkirk, Skipton, West Hartlepool, Wigan, 32 others.
- ONE-Acton, Beauly, Callander, Clacton, Cumbernauld, Dorking, Fort Augustus, Harpenden, Hythe, Kingussie, Lewes, Lockerbie, Northallerton, Pwllheli, Rugeley, Skye, Tring, Tunbridge Wells, Wheathampstead, Yeovil, 162 others.

	Demona	F	SP		Dognoviga	F	SP
	Response				Response		
1.	minute	200	2.43	15.	moment	19	10.53
2.	second	200	2.19	16.	quarter	18	9.56
3.	hour	197	2.90	17.	week-end	18	8.83
4.	day	195	4.11	18.	millisecond	15	7.80
5.	year	195	6.90	19.	generation	14	10.14
6.	week	186	5.49	20.	night .	14	7.43
7.	month	183	6.60	21.	eon	13	9.15
8.	century	179	9.19	22.	afternoon	11	8.27
9.	decade	167	8.65	23.	epoch	11	11.09
10.	fortnight	85	7.94	24.	quarter-		
11.	millennium	n 40	10.42		hour	11	8.00
12.	era	21	10.14	25.	light year	10	9.80
13.	half-hour	21	7.57	26.	micro-		
14.	age	20	₽9.45		second	10	8.00

26. UNITS OF TIME

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潮信) 昭曾 NINE—eternity.

SEVEN—evening, leap year, lunar month, morning, season.

 $SIX - \frac{3}{4}$ -hour, tick.

FIVE—centenary, lifetime.

FOUR-period, solar day, term.

THREE—half-century, jiffy, quatercentenary, split second, tricentenary, while.

Two-bicentenary, calendar month, degree, forenoon, fraction of second, half-second, instant, jubilee, sidereal day.

ONE—biannual, biennial, chronicle, diamond jubilee, dynasty, ever, five minutes, half-day, hora, light hour, long weekend, lunar year, midday, midnight, minuto, moon, nanosecond, part of second, $\frac{1}{4}$ -century, score, second of second, session, semester, siderial year, siecle, sieglo, solar year, ten days, world.

27. WORDS OF ANY LENGTH MADE UP FROM THE LETTERS WHINES

(Each letter may be used once only in any one word)

	Response	F	SP		Response	F	SP
1.	sin	135	4.05	15.	swine	41	4.44
2.	win	130	3.35	16.	wines	40	3.00
3.	shine	100	4.40	17.	hew	30	6.77
4.	wine	100	3.47	18.	wise	29	6.34
5.	shin	79	5.16	19.	wish	27	6.30
6.	sew	76	6.12	20.	is	25	5.16
7.	new	73	5.53	21.	shew	23	6.57
8.	his	70	4.83	22.	news	22	5.95
9.	when	68	4.46	23.	she	21	5.24
10.	whin	64	3.02	24.	he	17	4.82
11.	in	61	3.85	25.	wins	15	5.20
12.	hen	57	5.39	26.	hens	14	4.93
13.	sine	51	5.25	27.	we	11	5.91
14.	whine	51	3.57				

EIGHT—whins. SEVEN—sinew. FIVE—sewn. FOUR—I. THREE—wen.

Two-hewn, hews, sein, shewn, whines.

ONE-hie, hies, hine, hines, ines, nish, sen, shnew, whies.

28. WORDS V	WHICH	END	IN	'X'
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NINE-annex, coax, larynx, prefix.

EIGHT—Ajax, Styx.

Seven-climax, Knox, minx, nix, suffix.

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SIX-flux, lux, Max, vortex.

FIVE-Durex, Kleenex, matrix, Middlesex, phalanx, Sussex.

Four-appendix, crucifix, dux, Essex, hex, ibex, phlox, reflex, Wessex.

THREE-Manx, perplex, perspex, phoenix, Shell Mex, smallpox, syntax.

Two-Alex, anthrax, duplex, ex, felix, ilex, influx, latex, Marx, paradox, pharynx, Playtex, proprietrix, Redex, Redox, Rix, Telex, thorax, Trex, vox.

ONE-airtex, amplex, Bendix, borax, chickenpox, delux, equinox, Ibrox, joyeux, letterbox, lurex, parallax, prolix, pyx, reflux, rox, Tampax, transfix, vertex, Xerox, 36 others.

(MS received May, 1972)

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