TO THE READER

This issue of PASAA brings you a variety of topics of interest in the field of English language teaching in Thailand. As we are trying to broaden our readership, from now on we will also welcome articles in the area of linguistics.

We would also like to take this opportunity to express our apologies that a part of the article, "A Report on the University of Manchester Approach" by Dr. Sorani Wongbiasaj published in the previous issue of PASAA was missing. We have accordingly decided to reprint the whole article in this issue so that our readers can obtain the complete picture of what was discussed in the paper.

The next issue of PASAA will focus on "English in Business", as this topic is becoming a center of interest. So, we would like to encourage you to share your thoughts and experiences in this sphere by sending articles to us, no later than March 31, 1985, please. However, we also welcome, as always, contributions concerning other areas of TEFL and linguistics.

Finally, we are happy to announce that CULI has recently published a new book, *Research Abstracts 1978-1984*, which is the first collection of research abstracts taken from researches in TEFL undertaken by CULI teaching faculty from 1978 to 1984. The book is available in Thailand at 30 baht a copy (including postage). For sales overseas, the publication costs US$ 4.50 (including air-mail postage) per copy. Please make your *postal or money order* payable to "Chulalongkorn University Language Institute" "at" "Chulalongkorn University Post Office". Please make your *bank cheque or bank draft* payable to "Chulalongkorn University Language Institute".

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Modified Cloze Tests as Predictive Measures of Language Acquirers and Academic Achievers

K. Prapphal, K. Pas and S. Tanapongpipat
Chulalongkorn University
Language Institute
Bangkok, Thailand

1. Introduction

During the past few years the construct validity of language tests has been widely discussed. From these discussions has emerged the consensus that not only is there a plurality of factors underlying language proficiency, but that there must also be a componentially complex general factor underlying performance in language processing tasks (Oller, in press).

At the same time, but on a less theoretical level, language test researchers have been concerned with a more practical aspect of language tests, namely, the use of such tests for educational purposes (Cziko; 1981). This latter consideration does not need to be incompatible with the former theoretical aspect of language tests. Indeed, language testers today seem in need of tests that can combine theoretical, practical, and educational values.

There is a sufficient body of evidence to show that cloze tests account for linguistic knowledge at the discourse level (Chihará, Oller, Weaver and Chavez-Oller, 1977; and Bachman, 1982). In addition, cloze tests have correlated substantially with both academic achievement and general intelligence and suggest a strong relationship between general second/foreign language skills and first language skills (Cummins, 1979; Streiff, 1978; and Prapphal, 1982).

The present study aimed at investigating the two following aspects of modified cloze tests in the larger EFL context:

This paper was presented at the International Symposium on Language Testing in Hong Kong on 18-21 December, 1982.

1. Their power in discriminating academic achievers from academic nonachievers.
2. Their ability in predicting language acquirers in general English and English for Academic Purposes (EAP) programs.

2. Method

2.1 Subjects

The subjects were 528 randomly selected Thai students who, having just completed their secondary school studies in the science stream, took the 1982 Thailand University English 'AB' Entrance Examination on April 17, 1982. Half of the sample, or 264 students, were designated 'academic achievers' on the basis of their acceptance for undergraduate studies at either Chulalongkorn University or Mahidol University. The other 264 were designated 'academic nonachievers' since they had failed the national university entrance examination. Of the 264 'academic achievers,' 139 (53%) were randomly selected from Chulalongkorn University and 125 (47%) were randomly selected from Mahidol University. At Chulalongkorn, the 'academic achievers' were required to take the freshman general English course offered by the Chulalongkorn University Language Institute whereas at Mahidol the other 'academic achievers' had to take the English for Academic Purposes course offered by the Mahidol English Department.

2.2 Instruments

Although the final version of the 'AB' (or science stream) English entrance examination included 50 items from part I 'Structure and expression' and 50 items from Part II 'Reading Comprehension,' this study made use of only the 50 "Reading Comprehension" items. (Cf. Appendix A) These 50 items appeared in three reading passages; Passage 1 was a traditional reading test ('TR') 350 words in length. Its 13 items contained four vocabulary items (#51-#54); two reference items (#55-#56); three paraphrase items (#57, #58, #61); one detail (#60); one main idea (#63); and two stated conclusions (#59, #62). This passage had a Powers, Sumner and Kearl (1958) recalculated Flesch readability score of 38, ranking it as 'difficult.' The Farr, Jenkins, and Paterson (1951) version of the Flesch 'Reading Ease' formula ranked it appropriate for seventh grade with a score of 7.32. Passage 2 was a multiple choice cloze test ('MCC') of 182 words with twelve rational deletions of nine nouns, two verbs, and one adjective. The Powers, Sumner, and Kearl score of 37 also ranked it as 'difficult.' Its Farr, Jenkins, and Paterson score was 6.48. Passage 3 had 338 words with every 10th word deleted. A total of 25 items, together with 5 distractors, were then presented as a matching cloze test ('MC'). The Powers, Sumner and Kearl score of 59 classified the passage as 'fairly difficult' whereas the Farr, Jenkins, and Paterson formula was 5.74. The 25 random deletions

included seven nouns, seven verbs, three adjectives and eight 'other parts of speech.' All students taking the 'AB' examination had three hours in which to answer all 100 items on both Part I and Part II.

Scores of the three reading passages, hereafter referred to as 'TR' 'MCC', and 'MC', were provided by the Office of University Affairs whereas the English achievement test scores were obtained from the Chulalongkorn University Language Institute and the English Department of Mahidol University. The 264 subjects were asked to give their own high school grade point averages.

3. Results and Discussion

The reliability coefficients (Cronbach Alpha) for the three subtests ('TR', 'MCC', and 'MC' respectively) are .659, .640, and .908. The reliability coefficient of the combined tests is .922. *Table One* presents the descriptive statistics of the three tests. Due to the different numbers of items in the various subtests, all raw scores have been converted to Z scores for the purpose of meaningful comparisons.

Table 1

Descriptive Statistics of the Traditional Reading Test (TR), the Multiple Choice Cloze Test (MCC) and the Matching Cloze Test (MC)

N = 528

Variables	Number of Items	$\bar{X}$	%	SD
1. Traditional Reading Test (TR)	13	4.549	35	2.691
2. Multiple Choice Cloze Test (MCC)	12	4.233	35	2.519
3. Matching Cloze Test (MC)	25	7.458	30	6.056
4. Total (TR+MCC+MC)	50	16.241	32	10.258

In order to determine just how well the subjects had been categorized as 'academic achievers' or 'academic nonachievers,' discriminant analysis was used. The results indicate an overall accuracy of 92.80%; 85.60% for the 'achievers' and 100% accuracy for the 'nonachievers.'

Table 2

Classification of Academic 'Achievers' and 'Nonachievers'

Actual Group	N of Cases	Correct Prediction	Incorrect Prediction
1. Academic 'Achievers'	264	85.60% (N=226)	14.40% (N=38)
2. Academic 'Nonachievers'	264	100% (N=264)	0% (N=0)

Percent of "grouped" cases correctly classified = 92.80%

Even though the three subtests are able to satisfactorily classify the subjects as members of their actual groups, the classification of 'achievers' is not as accurate

as that of 'nonachievers.' One possible explanation for this discrepancy may be the fact that 'nonachievers' consistently did poorly in all of their academic subjects whereas 'achievers' did well in most, but not all, of their other academic subjects.

Table 3
Pearson Product Moment Correlations of the Three Tests
(N=528)

Variables	TR	MCC	MC	Total
1. Traditional Reading Test (TR)	1.000	.649	.720	.881
2. Multiple Choice Cloze Test (MCC)		1.000	.744	.890
3. Matching Cloze Test (MC)			1.000	.917
4. Total (TR+MCC+MC)				1.000

As a perusal of the Pearson Product Moment Correlations in *Table Three* indicates, all three tests correlated significantly and substantially. The 'TR' correlates at .649 with the 'MCC' and at .720 with the 'MC.' Even though the 'TR' and the 'MCC' tests are both of the same multiple-choice format, they show the lowest correlation (.649) and share only 42% of the same variance, possibly because of the element of guessing on multiple-choice items. By contrast, the two cloze tests, 'MCC' and 'MC', have the highest correlation and share 55% of the common variance. One possible explanation could be the fact that since the questions of the two tests are completely within the texts, the students must synthesize their knowledge of linguistic elements--syntax, semantics, and pragmatics--more than they would with questions not inherent in the text. Thus, the text-bound questions may require higher-level skills which tap the students' global knowledge of English at the discourse level.

This claim seems true if we look at the results of the discriminant analysis of the three tests as shown in *Table Four.*

Table 4
Discriminant Analysis of the Three Tests

Discriminant Function	Eigenvalue	Relative Percentage	Canonical Correlation	Functions Derived	Wilks' Lambda	Chi quare	df sig
1	2.483	100.00	.844	0	.287	654.576	3.000

Standardized Discriminant Function Coefficients

	Function 1
Traditional Reading Test	-.226
Multiple Choice Cloze Test	-.344
Matching Cloze Test	-.533

While it is apparent that the three tests measure the same dimension, it is also clear that the 'MC' test contributes the most to this discriminant function, followed next by the 'MCC' test and lastly by the 'TR' test. The exact nature of this underlying dimension could conceivably be a global knowledge of English, underlying propositional abilities and/or communicative competence in the visual mode.

Table 5A
Bivariate Regression between the Traditional Reading Test and Academic Achievement

Source	R^2	B	df	SS	MS	F
Regression	.494	.703	1	260.883	260.883	514.017***
Residual	.506		526	266.965	.508	
Total	1.000		527	527.848		

Table 5B
Bivariate Regression between the Multiple Choice Cloze Test and Academic Achievement

Source	R^2	B	df	SS	MS	F
Regression	.561	.749	1	295.969	295.969	671.255***
Residual	.439		526	231.923	.441	
Total	1.000		527	527.892		

Table 5C
Bivariate Regression between the Matching Cloze Test and Academic Achievement

Source	R^2	B	df	SS	MS	F
Regression	.645	.803	1	338.791	338.791	956.921***
Residual	.355		526	186.226	.354	
Total	1.000		527	525.017		

Tables Five A, Five B, and *Five C* present the results of using bivariate regression analyses to investigate the predictive ability of the three kinds of reading tests on academic achievement. Once again, the best predictor of academic achievement is the matching cloze test which explains 65% of the variance ($R^2 = .645$). The multiple-choice cloze test is the second best predictor, explaining 56% of the variance ($R^2 = .561$). The traditional multiple-choice test is the worst predictor, accounting for 50% of the variance ($R^2 = .494$). All of the above evidence suggests that the

'MC' test is undoubtedly the best predictive measure of academic achievement, probably because it measures high-level integrative skills along the continuum of communicative effectiveness.

The relationships between the three tests with both secondary school grade point averages, 'GPA,' and university English achievement, 'UA' can be seen in *Tables Six* and *Seven.*

Table 6
Descriptive Statistics of the EAP Program
(Mahidol University)

Variables	N of Cases	Maximum Score	$\bar{X}$	%	SD
1. Traditional Reading Test	125	13	6.104	47	2.352
2. Multiple Choice Cloze Test	125	12	5.912	49	2.040
3. Matching Cloze Test	125	25	11.688	47	4.933
4. Proficiency Test (1+2+3)	125	50	23.704	47	7.578
5. GPA (Secondary)	107	4.00	2.943		.497
6. University Achievement Test	116	350	278.095		42.762

Table 7
Descriptive Statistics of the General English Program
(Chulalongkorn University)

Variables	N of Cases	Maximum Score	$\bar{X}$	%	SD
1. Traditional Reading Test	139	13	6.741	52	2.339
2. Multiple Choice Cloze Test	139	12	6.302	53	2.010
3. Matching Cloze Test	139	25	12.885	52	4.754
4. Proficiency Test (1+2+3)	139	50	25.928	52	7.526
5. GPA (Secondary)	120	4.00	3.109		.463
6. University Achievement Test	128	180	123.141		15.643

Not only did the Chulalongkorn University students have slightly higher secondary school grade point averages than the Mahidol University students (3.109 vs. 2.943), but the Chulalongkorn students consistently performed better than their Mahidol counterparts on all three subtests with the result that the total test scores were 25.928 (or 52% correct) for the Chulalongkorn students vs. 23.704 (or 47% correct) for the Mahidol ones.

In order to explain the relationships between the traditional reading comprehension test, modified cloze tests, secondary school grade point averages and university English achievement, Pearson correlations were computed. *Table Eight* shows the intercorrelations of the variables for Mahidol University students whereas *Table Nine* shows the same information for Chulalongkorn University students.

Table 8
Pearson Product Moment Correlations of Language Tests and Secondary School GPA (Mahidol University)

Variables	1	2	3	4	5	6
1. Traditional Reading Test (TR)	1.000	.278	.469	.691	.349	.433
2. Multiple Choice Cloze Test (MCC)		1.000	.489	.674	.471	.283
3. Matching Cloze Test (MC)			1.000	.928	.602	.508
4. Proficiency (TR+MCC+MC)				1.000	.623	.540
5. University Achievement (UA)					1.000	.609
6. GPA (Secondary)						1.000

Table 9
Pearson Product Moment Correlations of Language Tests and Secondary School GPA (Chulalongkorn University)

Variables	1	2	3	4	5	6
1. Traditional Reading Test (TR)	1.000	.527	.485	.758	.553	.135
2. Multiple Choice Cloze Test (MCC)		1.000	.460	.721	.482	.321
3. Matching Cloze Test (MC)			1.000	.905	.691	.465
4. Proficiency (TR+MCC+MC)				1.000	.748	.425
5. University Achievement (UA)					1.000	.517
6. GPA (Secondary)						1.000

As regards both Mahidol and Chulalongkorn University students, the highest correlation between secondary school grade point averages and any one subtest was with the 'MC' test at .508. Thus, this test explains 26% of the common variance for Mahidol students and 22% for Chulalongkorn students. The correlations for the

'TR' and 'MCC' and secondary GPA differ for Mahidol and Chulalongkorn University students. With Mahidol students, the 'TR' and 'MCC' tests account for 19% and 8% of the variance with .433 and .283 correlations, respectively. But with Chulalongkorn students, the 'TR' and 'MCC' tests account for 2% and 10% of the total shared variance with .135 and .321 correlations, respectively. The 'TR' and 'MCC' may be unreliable indicators of past academic performance because they tap lower-level cognitive skills that are independed of the secondary GPA.

Similarly, the 'MC' test correlates most highly with the EAP achievement of Mahidol students and general English achievement of Chulalongkorn students at .602 and .691, respectively. However, the common variances are higher than those of secondary GPA, accounting for 36% and 48% of the commonly shared variance. It is also interesting to note that the 'MCC' test correlates better with university achievement than with secondary GPA at both Mahidol and Chulalongkorn. Perhaps such modified cloze tests are more closely related to a general knowledge of English than to any general academic performance. The higher correlation (.553) of the 'TR' test with Chulalongkorn University students' achievement (vs. .349 for Mahidol University) is more in accordance with the more general nature of the Chulalongkorn University English program than it is with the EAP program at Mahidol University.

4. Conclusions

Of the three types of reading comprehension subtests, the matching cloze format was found to have decided theoretical and practical advantages. Theoretically, a matching cloze test is capable of measuring student ability to integrate linguistic elements at the syntactic, semantic, and discourse levels and student abilities to anticipate such elements. As a result, such a cloze test draws upon both low and high level integrative skills. Practically a modified matching cloze test not only is relatively easy to construct, but also yields reliable coefficients because of both the greater number of items and the reduced chances of guessing. Equally as important for educators involved in constructing national university entrance exams, the matching cloze test is quite able to discriminate between subjects with different levels of language proficiency. It also serves a useful function in explaining past academic performance and in predicting future university achievement in different types of English programs. For all of these enumerated reasons, the modified matching cloze test can and should make a valuable contribution to language testing in the larger EFL context.

References

Bachman, L.F. 1982. 'The trait structure of cloze test scores.' *TESOL Quarterly* 16 : 61-70.

Chihara, T., Oller, J.W., Weaver, K. and Chavez-Oller, M.A. 1977. 'Are cloze items sensitive to constraints across sentences?' *Language Learning* 27 : 63-73.

Cummins, J. 1979. 'Cognitive/academic language proficiency, linguistic interdependence, the optimal age, and some other matters.' *Working Papers on Bilingualism* 19 : 198-205.

Cziko, G. 1981. 'Psychometric and edumetric approaches to language testing : implications and applications.' *Applied Linguistics* 2 : 28-44.

Farr, J.N., Jenkins, J. and Paterson, D.G. 1951. 'Simplification of Flesch reading ease formula.' *Journal of Applied Psychology* 35 : 333-337.

Oller, J.W. In press. *Issues in Language Testing Research* Rowley, Mass. : Newbury House.

Powers, R.D.; Sumner, W.A.; and Kearl, B.E. 1958. 'A recalculation of four readability formulas.' *Journal of Educational Psychology* 49 : 99-105.

Prapphal, K. 1982. 'Surface and deep structure of language tests.' *PASAA* 12 : 21-30.

Streiff, V. 1978. 'Relationships among oral and written cloze scores and achievement test scores in a bilingual setting.' In *Language in Education : Testing the Tests*, edited by J.W. Oller and K. Perkins, pp. 65-100. Rowley, Mass : Newbury House.

(PART II) READING COMPREHENSION (50 marks)

A. (13 marks)

Directions : Read the following passage carefully. Then choose the best answer to each of the questions.

Passage 1

A great deal of talk is heard these days about protecting threatened animal species, preserving forests, improving the environment, and even restoring the "quality of life". And yet these notions sometimes seem hazy and the motives behind them are as a rule neither very clear nor very rational. The case for the conservation of nature must be more satisfactorily explained before it can be more effectively defended.

Some 10,000 years ago, and abundant and noble form of animal life, the mammoth, disappeared forever from the face of the earth, perhaps as a result of the long hail of blows imposed on it by our distant ancestors, doubtless too because its disappearance had already been decided in the indifferent evolution of species.

No one today is concerned about the fate of the mammoth, whose extinction has been no hindrance to the development and flowering of human civilizations. The survival or disappearance of a single species notwithstanding, the great adventure of life goes on. On the other hand, the world as we and our children envision it today would undeniably be the poorer if the elephant, for example, became extinct. The philosopher Immanuel Kant maintained that man has duties to himself only. Does he, then, owe none to the elephant? Or to the whale?

The truth is that in every age certain civilizations have shown respect for living species and certain religions have even raised such respect to the level of dogma. In every age, too, the rural world has patiently harvested the bounty of nature's resources without jeopardizing their productive physical and biological mechanisms, thereby securing the very foundations of human societies and cultures.

These processes are still going on today. But at the same time new phenomena have appeared and their impact has been increasingly felt since industrial civilization and the agricultural revolution extended their sway to every corner of the world, since unbridled population growth began, and since our needs of all kinds, whether real or imagined, have come to impose on nature and natural resources a pressure which is constantly mounting, often excessive, and will soon become intolerable.

51. The word "motives" (line 4) means "……".
    a. rules
    b. laws
    c. reasons
    d. ideas

52. The phrase "has been no hindrance to" (line 13) means "……".
    a. has not held back
    b. has not been far behind
    c. has not been related to
    d. has not resulted from

53. The phrase "the rural world" (line 22) "……".
    a. people of the countryside
    b. leaders of some governments
    c. ancient civilizations
    d. ancient religions

54. The word "securing" (line 24) means "……".
    a. making known b. leading to
    c. getting back d. making firm
55. The phrase "whose extinction" (lines 12-13) refers to the extinction of …….
    a. no one b. fate
    c. human civilization d. the mammoth
56. The phrase "these processes" (line 26) refers to the processes …….
    a. by which man has been destroying nature
    b. in which the relationship between and nature is balanced
    c. by which religions and civilizations have developed
    d. which require more use of machinery
57. In the first paragraph, the writer probably believes …….
    a. too many people are talking about protecting threatened animal species
    b. there is still not a clear enough understanding of why nature should be conserved
    c. the rules now followed for the conservation of nature are not clearly stated
    d. the more people talk about the conservation of nature, the more effective they are
58. The phrase "a result of the long hail of blows imposed on it by our distant ancestors" (line 9) indicates that …….
    a. cold weather made the mammoth disappear from our ancestors
    b. our ancestors killed most of the mammoths
    c. long blows placed the mammoth far from our ancestors
    d. our ancestors used bows and arrows to hunt the mammoth
59. From what is said about Immanuel Kant, we can conclude that the writer …….
    a. probably would not agree with Kant's opinion about man's duties
    b. would like to have more information about Kant's idea
    c. supports Kant's statement about man's duties
    d. believes that the elephant and the whale are more important than man
60. In the fourth paragraph, the writer thinks that …….
    a. it is certain all civilizations have shown respect for living species
    b. religions, unlike civilizations, have a great respect for nature
    c. it is possible for man to use the products of nature without destroying nature
    d. mechanical devices have endangered the physical products of nature
61. The clause "since unbridled population growth began (lines 29-30) states the same idea as ……".
    a. from the time that the world's population started growing uncontrollably
    b. because the growth of population began to be uncontrolled

c. after the population was unbridled to begin growing
d. owing to the unlimited growing of crops by the population

62. It is stated in the last paragraph that .....
a. the impact of these phenomena has only recently been felt
b. the agricultural revolution has been more important than the industrial revolution
c. more than ever before, man is beginning to harm the environment for his own wants
d. the pressure of nature's demands has become intolerable

63. In this text, the writer's main purpose has been to "....."
a. explain to us why some species have disappeared
b. praise certain civilizations and religions for respecting living species
c. show us how civilization had developed from ancient times to the present
d. convince us to do more to conserve nature

B. (12 marks)

Directions : In this test every 10th word is one of the four alternatives in the box. Read the whole passage and choose the best answer. Mark the correct answer on the answer sheet.

Example : "Five, four, three, two, one. Fire! The rocket shoots

(1) [a. up / b. at / c. over / d. through] into the sky. The noise dies and the flame

(2) [a. grows / b. flies / c. runs / d. gets] smaller and smaller. Within seconds it is out of sight."

Answers :

	a	b	c	d
1.	(X)	( )	( )	( )
2.	( )	( )	( )	(X)

Passage 2

The amount of water needed to sustain life varies with factors such as peoples' sizes and health, their normal activities, and the environment in which they live. Furthermore, not all water is consumed in pure liquid

(64) [a. amounts / b. types / c. size / d. form] ; it may be derived from the moisture contained in

(65) [a. solid / b. liquid / c. common / d. rare] foods. But the water must be consumed in some

(66) [a. kind / b. way / c. time / d. quality] , or life cannot exist.

The main problems facing any (67) [a. person / b. method / c. group / d. situation] in connection with its water supply are finding a (68) [a. substance / b. machine / c. source / d. technique] , getting at the usable portion, and storing it.

To (69) [a. find / b. spend / c. need / d. limit] sources of moisture, members of hunting and gathering societies (70) [a. focus / b. depend / c. watch / d. insist] principally on their intimate knowledge of their territory and (71) [a. numbers / b. colors / c. qualities / d. types] of local plants and animals. Even in extremely arid (72) [a. areas / b. lives / c. peoples / d. societies] , finding drinking water involves knowing the location of the water (73) [a. animals / b. usages / c. demand / d. suppy] or of moisture-containing plants. It also involves a keen

(74) a. carefulness / b. awareness / c. openness / d. willingness of signs that moisture may be present in other

(75) a. groups / b. times / c. places / d. ways . People who live in dry environments also develop

the ability to persist in spite of thirst, and this gives them an advantage over others who tend to give up in the same situations.

C. (25 marks)

Directions: Complete the following passage by using *only* the following words. Notice that there are more words than blanks. Write the *number* of each correct word on your answer sheet. Do not write the words. Each word is used only once.

Nouns	Verbs	Adjectives	Other Parts of Speech
1. cards	9. competed	17. each	22. a
2. competitor	10. decide	18. few	23. almost
3. competitors	11. is	19. his	24. for
4. game	12. may	20. many	25. itself
5. games	13. offered	21. these	26. not
6. pleasure	14. play		27. on
7. skill	15. remember		28. or
8. spirit	16. wins		29. to
			30. with

Passage 3

People have devised countless varieties of games in which the pleasure lies in striving toward a result that remains uncertain till the end. There are games for one person, like crossword puzzles or patience. There are sports, like football or cricket, that involve not only teams of players, but large crowds of spectators. Games that have this uncertainty of result fall into two broad categories: games of skill and games of chance.

In both types of these games, each player drops *76* normal social role and adopts the temporary role of *77*. In games of skill, a person competes against one *78* more persons or against the difficulty of the activity *79*. His ability to play will largely determine whether he *80* or loses. When a person competes against luck, he *81* playing a game of chance. In each case, is *82* player forgets himself in attempting to win, then that *83* is a good one.

Of course, an element of *84* enters into most games of chance and vice versa. *85* like bridge or poker, in which the player receives *86* by chance, also require a large amount of skill *87* the part of the player if he is to *88* the cards successfully. On the other hand, chance may *89* the outcome of a game of skill. For example, *90* runner may twist his ankle or a cricket player *91* break his bat.

Although the possibilities are seemingly endless *92* competing against others in games of skill, the competitive *93* is found in more than games. It enters into *94* all social activities, adding interest to otherwise routine tasks. *95* present-day industrial societies encourage both agricultural and industrial workers *96* compete against one another in production, and incentives are *97* to the most efficient workers. It is important to *98* that for a competition to be a game, all *99* must observe certain rules of fairness. When this is *100* the case, the game develops into a no-holds-barred struggle that is too serious to be fun.