

Vol 5 Issue 4 Jan 2016

ISSN No : 2249-894X

*Monthly Multidisciplinary
Research Journal*

*Review Of
Research Journal*

Chief Editors

Ashok Yakkaldevi
A R Burla College, India

Ecaterina Patrascu
Spiru Haret University, Bucharest

Kamani Perera
Regional Centre For Strategic Studies,
Sri Lanka

Review Of Research Journal is a multidisciplinary research journal, published monthly in English, Hindi & Marathi Language. All research papers submitted to the journal will be double - blind peer reviewed referred by members of the editorial Board readers will include investigator in universities, research institutes government and industry with research interest in the general subjects.

Regional Editor

Dr. T. Manichander

Advisory Board

Kamani Perera Regional Centre For Strategic Studies, Sri Lanka	Delia Serbescu Spiru Haret University, Bucharest, Romania	Mabel Miao Center for China and Globalization, China
Ecaterina Patrascu Spiru Haret University, Bucharest	Xiaohua Yang University of San Francisco, San Francisco	Ruth Wolf University Walla, Israel
Fabricio Moraes de Almeida Federal University of Rondonia, Brazil	Karina Xavier Massachusetts Institute of Technology (MIT), USA	Jie Hao University of Sydney, Australia
Anna Maria Constantinovici AL. I. Cuza University, Romania	May Hongmei Gao Kennesaw State University, USA	Pei-Shan Kao Andrea University of Essex, United Kingdom
Romona Mihaila Spiru Haret University, Romania	Marc Fetscherin Rollins College, USA	Loredana Bosca Spiru Haret University, Romania
	Liu Chen Beijing Foreign Studies University, China	Ilie Pinte Spiru Haret University, Romania
Mahdi Moharrampour Islamic Azad University buinzahra Branch, Qazvin, Iran	Nimita Khanna Director, Isara Institute of Management, New Delhi	Govind P. Shinde Bharati Vidyapeeth School of Distance Education Center, Navi Mumbai
Titus Pop PhD, Partium Christian University, Oradea, Romania	Salve R. N. Department of Sociology, Shivaji University, Kolhapur	Sonal Singh Vikram University, Ujjain
J. K. VIJAYAKUMAR King Abdullah University of Science & Technology, Saudi Arabia.	P. Malyadri Government Degree College, Tandur, A.P.	Jayashree Patil-Dake MBA Department of Badruka College Commerce and Arts Post Graduate Centre (BCCAPGC), Kachiguda, Hyderabad
George - Calin SERITAN Postdoctoral Researcher Faculty of Philosophy and Socio-Political Sciences Al. I. Cuza University, Iasi	S. D. Sindkhedkar PSGVP Mandal's Arts, Science and Commerce College, Shahada [M.S.]	Maj. Dr. S. Bakhtiar Choudhary Director, Hyderabad AP India.
REZA KAFIPOUR Shiraz University of Medical Sciences Shiraz, Iran	Anurag Misra DBS College, Kanpur	AR. SARAVANAKUMARALAGAPPA UNIVERSITY, KARAIKUDI, TN
Rajendra Shendge Director, B.C.U.D. Solapur University, Solapur	C. D. Balaji Panimalar Engineering College, Chennai	V.MAHALAKSHMI Dean, Panimalar Engineering College
	Bhavana vivek patole PhD, Elphinstone college mumbai-32	S.KANNAN Ph.D , Annamalai University
	Awadhesh Kumar Shirotriya Secretary, Play India Play (Trust), Meerut (U.P.)	Kanwar Dinesh Singh Dept.English, Government Postgraduate College , solan

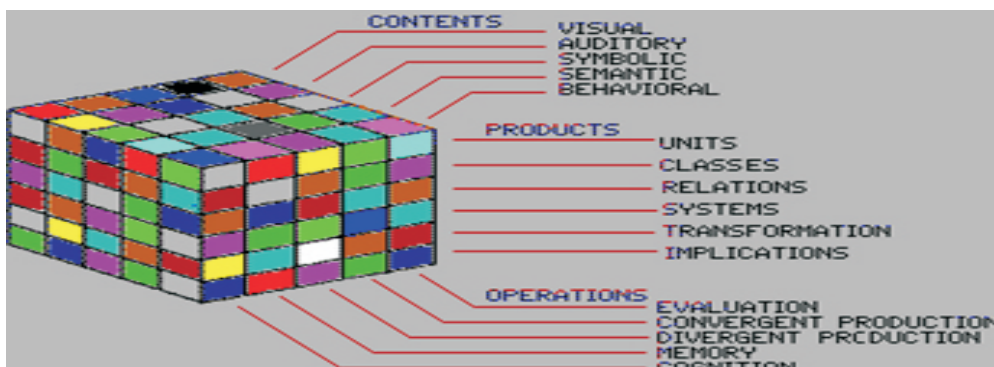
More.....



ISSN: 2249-894X

Impact Factor : 3.1402(UIF)

Volume - 5 | Issue - 4 | Jan - 2016



Dr. Vikram P. Hiremath



DEVELOPMENT OF GUILFORD'S TYPE TESTS OF COGNITIVE ABILITIES



Dr. Vikram P. Hiremath

Assistant Professor , Kottur Swamy College of Education,
Kappagal Road Ballari.

ABSTRACT

In all classifications of cognitive abilities a Verbal Comprehension factor is prominent. The nature of this factor is complex, and attempts to analyse it (Thurstone, 1938; Carroll, 1941; Guilford, 1972) have made distinctions between receptive ability (comprehension) and productive ability (fluency), and between isolated words (vocabulary) and words in context (discourse). The validity of these distinctions is discussed. The second part of the article examines what type of tests are the best markers for the Verbal Comprehension factor. The Educational Testing Service's kits of factor referenced cognitive tests (1 954, 1963, 1976) give only single-word vocabulary tests, despite suggestions by Cattell (1971) and Carroll (1974) that other types of tests should also be used, and despite increasing doubts, especially in some ESL/EFL circles, about the validity of discretepoint language testing. The final part of the article describes an experiment with Hong Kong Chinese students. The results support the use of single-word Vocabulary tests as reliable markers of the Verbal Comprehension factor, but also support the contention that future Kits' of The Educational Testing Service should include verbal tests of a more varied nature.

KEYWORDS :cognitive abilities, Verbal Comprehension,

INTRODUCTION

Some of the available tests for the assessment of attainment of Cognitive abilities in Social Science subject at VIII Standard were not found to be that satisfactory in terms of comprehensiveness

and relevance.

A battery of comprehensive test on Cognition abilities with Figural, Symbolic, Semantic and Behavioural abilities was developed using the scientific procedure. The details of the content dimensions are given below.

Cognitive Abilities

About the grammatical structure of the incoming signal, and checks this against the actual input. Miller (1964: 30) describes the process: The first stage is a guess about the stream of incoming sound; a response to this is then generated; the first guess may well be wrong, so another guess is made which will probably be closer; the listener keeps trying till a satisfactory match is obtained.

Though the active, constructive nature of the analysis-by-synthesis (A-by-S) mode seems to fit our internal awareness of the comprehension process, it was challenged by Katz and Postal (1964: 167). Their objection was that in order to provide the syntactic analysis of even fairly short sentences, the number of independent operations required would be so enormously high that a human brain could not be expected to perform the analysis even in a lifetime. The trial-and-error process would have too many errors and could not keep up with the incoming signals.

Neisser (1966) attempted to confront this objection with two suggestions. His first suggestion was that the incoming flow of speech passes through a "filter" system which segments the flow, extracts a few distinctive features, and tentatively recognises some of the constituent elements or units. What comes through this filter system is the raw material for the listener's construction or synthesis of an internal message to match the actual input. Neisser's second suggestion was that the constructive process is not aimlessly trial-and-error, but bases its construction on contextual clues. The context thus ensures that the most probable "fit" will be tried first, and since this will often be the correct one, the trial-and-error process will be characterised more by success than by error.

Cognition : The Figural Dimension

- i. Figural Units
- ii. Figural Classes
- iii. Figural Relations
- iv. Figural Systems
- v. Figural Transformations
- vi. Figural Implications

Cognition : The Symbolic Dimension

- vii. Symbolic Units
- viii. Symbolic Classes
- ix. Symbolic Relations
- x. Symbolic Systems
- xi. Symbolic Transformations
- xii. Symbolic Implications

Cognition : The Semantic Dimension

- xiii. Semantic Units
- xiv. Semantic Classes

- xv. Semantic Relations
- xvi. Semantic Systems
- xvii. Semantic Transformations
- xviii. Semantic Implications

Cognition : The Behavioural Dimension

- xix. Behavioural Units
- xx. Behavioural Classes
- xxi. Behavioural Relations
- xxii. Behavioural Systems
- xxiii. Behavioural Transformations
- xxiv. Behavioural Implications

In all 24 Cognition abilities were listed under 4 Content areas such as Figural, Symbolic, Semantic and Behavioral. These Cognition abilities are to be attained by students of secondary schools through Social Science subject.

However, the scope of the present study is restricted to only 4 Contents and 6 Products. Details of the factors selected for the construction of test are : CFU, CFC, CFR, CFS, CFT, CFI, CSU, CSC, CSR, CSS, CST, CSI, CMU, CMC, CMR, CMS, CMT, CMI, CBU, CBC, CBR, CBS, CBT and CBI.

Constructing and Pooling of Test Items

Test items representing 24 factors were developed by the investigator after consulting the following sources :

1. Guilford's J.P. Structure of Intellect. In Psychological Bulletin, 52, 1996.
2. Guilford, J.P. Nature of Intelligence. New York : McGraw Hill, 1967.
3. Meeker, M. N. The Structure of Intellect : Its Interpretation and Uses. Columbus, Ohio : Charles E. Merrill Publishing Co., 1969.
4. Guilford, J. P. and Hoepfner, R. The Analysis of Intelligence. New York : McGraw Hill, 1971.
5. Katageri, B. S. Construction and Analysis of Guilford Type Test. Unpublished Dissertation, Karnatak University, 1981.
6. Ari, P. G. Development and Detailed Item Analysis of Guilford Type Tests of Some Semantic Abilities. Unpublished Dissertation, Karnatak University, 1984.
7. Harapanahalli, J. G. A Comparative Study of Guilford's Cognitive Abilities among Advantaged and Disadvantaged Students. Unpublished Dissertation, Karnatak University, 1994.
8. Pednekar, R. G. A Comparative Study of Guilford's Convergent Abilities among Advantaged and Disadvantaged Students. Unpublished Dissertation, Karnatak University, 1995.
9. Gudi, J. B. Comparative Study of Guilford's Divergent Production Abilities among Advantaged and Disadvantaged Students. Unpublished Dissertation, Karnatak University, 1995.
10. Morkar, U. S. A Comparative Study of Guilford's Divergent abilities among Advantaged and Disadvantaged Students. Unpublished Dissertation, Karnatak University, 1999.
11. Investigator's experience.

A total pool of test items on Cognitive abilities with Figural, Symbolic, Semantic and Behavioural areas consists of 201 test items.

CONCLUSION

Within the wider framework of attempts to classify human cognitive abilities, the Verbal Comprehension factor has been discussed. Attempts to analyse this factor have been described, and some distinctions commonly made have been seen to be inadequate.

Given the complexity of the factor, it is hardly surprising that there is disagreement on what kind of tests are the most appropriate marker tests for Verbal Comprehension. The practice among some psychologists of using only single-word Vocabulary tests would be challenged by many language teachers, who themselves, however, should not be too cavalier in dismissing this type of test from their test batteries.

REFERENCE

1. Abbot, G. and Wingard, P. (Eds.). 1981. The teaching of English as an international language. London: Collins.
2. Brimer, M. A. and Dunn, L. M. 1968. English Picture Vocabulary Test. Newnham, Glos.: Educational Evaluation Enterprises.
3. Burt, C. and Jones, E. M. 1942. A factorial analysis of Terman-Binet tests. *British Journal of Educational Psychology*, 12, 117-127.
4. Carroll, J. B. 1941. A factor analysis of verbal abilities. *Psychometrika*, 6, 279-308.
5. Carroll, J. B. 1968. Review of Guilford, J. P., The nature of human intelligence. *American Educational Research Journal* 5: 249-256.
6. Educational Testing Series 1979. Sequential tests of educational progress Level I. Princeton, N.J.: Educational Testing Service.
7. French, J. W., Ekstrom, R. B. and Price, L. A. 1963. Kit of reference tests for cognitive factors. Princeton N.J.: Educational Testing Service
8. Guilford, J. P. 1972. Thurstone's primary mental abilities and structure of intellect abilities. *Psychological Bulletin*, 77, 129-143.
9. Horn, L. and Cattell, R. B. 1982. Whimsy and misunderstandings of Gf and Gc theory: a comment on Guilford. *Psychological Bulletin*. 91 (3), 623-633.
10. Royce, J. R. 1973. The conceptual framework for a multi-factor theory of understanding. In J. R. Royce (Ed.), *Multivariate analysis and psychological theory*. London: Academic Press, 305-407.

Publish Research Article

International Level Multidisciplinary Research Journal For All Subjects

Dear Sir/Mam,

We invite unpublished Research Paper, Summary of Research Project, Theses, Books and Books Review for publication, you will be pleased to know that our journals are

Associated and Indexed, India

- ★ Directory Of Research Journal Indexing
- ★ International Scientific Journal Consortium Scientific
- ★ OPEN J-GATE

Associated and Indexed, USA

- DOAJ
- EBSCO
- Crossref DOI
- Index Copernicus
- Publication Index
- Academic Journal Database
- Contemporary Research Index
- Academic Paper Database
- Digital Journals Database
- Current Index to Scholarly Journals
- Elite Scientific Journal Archive
- Directory Of Academic Resources
- Scholar Journal Index
- Recent Science Index
- Scientific Resources Database

Review Of Research Journal
258/34 Raviwar Peth Solapur-
413005, Maharashtra
Contact-9595359435

E-Mail-ayisrj@yahoo.in/ayisrj2011@gmail.com