Chapter - IV

Cool Construction
# CHAPTER - IV

## TOOL CONSTRUCTION

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CHAPTER - IV
TOOL CONSTRUCTION

4.1. INTRODUCTION

Our age has been variously called the Age of Science, the Atomic Age, the Space Age, and the Age of Crisis, (De Boer J. John and Martha Dallman, 1960, P.3). Telephone, Telegraph, Internet, Radio, Television, e-mail, and various other methods of voice reading are examples of the ways in which language symbols have become the means of bringing human beings together. But, technology has not replaced reading. It is an indispensable factor in modern life, interwoven with work, recreation, and other activities of young people and adults. Its great value lies in two facts; printed materials provide the most illuminating and varied records of human experience that are now available; and they can be examined and restudied time and again at the reader’s convenience (Gray and Rogers, 1956, P.8).

Reading is the major avenue of communication. It is the means by which every age is linked to each other. Teaching reading is a humanizing process. At all levels reading instruction should serve to develop comprehension. Comprehension depends on the background the reader brings to the reading, his vocabulary development and his ability to interpret the author’s words into concepts. True reading is reading with understanding or comprehension. Comprehension includes the correct association of meaning with word symbols, the evaluation of meanings which are suggested in context, the selection of the correct meaning, the organization of ideas as they are read, the retention of these ideas, and their use in some present or future activity (Yoakman, Gerald A., 1951, P.32).

4.2. RATIONALE FOR THE TOOL – TEST ON READING COMPREHENSION

Lanier and Davis (1972) in summarizing comprehension skills, categorise them as literal skills (recall and recognition of facts); interpretative skills (inferring, drawing conclusions, generalizing, deriving meaning from figurative language, predicting, anticipating, and summarizing); critical skills (judging, detecting propaganda, analyzing, checking validity, checking the author’s biases, and purposes); and creative skills (applying information, responding emotionally).
Gray (1940) suggested that different levels of meaning could be obtained from the same material. He identified a literal level, which involves translation of what the words say, an interpretative level, which relates material to its context, a significance level, which involves implications, and an evaluative level, which requires the reader to react to the material in his own terms (P. vii).

Reading activity involves perception, recall, reasoning, evaluating, imagining, organising, application, and problem solving. Reading comprehension involves the following levels -

6*Reading the lines:* Understanding the literal meaning i.e., responding to the precise meaning of familiar words in their context and inferring the meaning of unfamiliar words from contextual clues and also visualising the scenes and events the words conjure up.

*Reading between the lines:* Getting the author’s intent and purpose - interpreting clues to character and plot, distinguishing between fact and fiction - recognising and interpreting many literary devices like metaphor and irony.

*Reading beyond the lines:* Deriving implications, speculating about consequences, drawing generalisations not stated by the author - arranging ideas into patterns - by analysis and synthesis the reader gains a new insight or higher level of understanding.

*Reading with involvement:* The reader not only gets ideas but ideas get him - sympathy and identification with characters, awareness of moral problems etc. (RIE Monograph on ELT, P.1970).

The investigator after thorough discussion with her research guide and a panel of experts in the field of educational research decided to study the skills of reading comprehension – a) Reading the lines, b) Reading between the lines and c) Reading beyond the lines – developed by standard IX students in Tuticorin district, Tamil Nadu. The following five reading comprehension texts were selected from various books with the help of ELT experts to study the skills of Reading the lines, Reading between the lines and Reading beyond the lines with all their essential sub-skills. After judging the suitability of the texts, test items were prepared to elicit answers at the above stated three levels of comprehension. The following are the texts selected for the purpose:
Text - 1

The Angel of peace

This woman is none other than Mother Teresa, the Nobel Peace Prize winner of 1979. Her service to the suffering humanity has earned her the love and respect of the entire world.

Mother Teresa came to India in 1929 leaving behind her beloved parents and her happy home in Yugoslavia forever. She started her life as a nun in Calcutta. She used to go out into Moti Jheel to teach the poor children and to distribute medicines for the sick. The sufferings of the helpless people living in the dirty and crowded huts of Moti Jheel made her restless and she decided to give her life to their service.

Mother Teresa’s work began in the streets of Calcutta, where men, women and children were dying everyday without food, without shelter and without care. Lepers and diseased people lay here and there, unable to move about. The sight was really heart-breaking. ‘No one should die on the street like a dog’, Mother Teresa said. She came out to give these people her healing touch. She carried with her only five rupees and a strong faith in God.

(Nanda Kamala, 1989; P. 168)

Text - 2

The Four Clever Brothers

“Dear Children”, said a poor man to his four sons, “Since you are grown up, you must go out into the world and make your own fortunes, for I have nothing to give you. Begin by learning a trade and see what happens”.

So the four brothers took their walking sticks and their bundles of clothing bade their father farewell and went out through the town-gate together.

After they traveled some distance, they came to a point where four roads crossed, each one leading into a different country.

“Here we must part”, said the eldest brother, “But exactly four years from now, we will meet again at this spot. In the meantime let’s go and try our luck”.

When they were about to depart they came across a news from a passerby. The king’s only daughter was carried off by a dragon. The king was in grief. He announced that whoever brought his daughter back to him would marry her.

The four brothers said, “Here is a chance we have been waiting for. Let’s see what we can do”. And they agreed to go together to find the dragon and free the beautiful princess.
“I’ll soon find out where she is”, said the star-gazer, and he looked through the glass. He soon cried. “There I see her; she is sitting on a rock in the sea many miles from here, and the dragon is guarding her”.

(Nanda Kamala, 1989; P. 170)

Text - 3

All in a Day’s work

I did most of the domestic work because my sister and brother were too small. My uncles were considered too big. I woke up at 4.30 in the morning to do the domestic work. After morning coffee, which we often had with mealie-meal porridge from the previous night’s left over, we went to school. Back from school I had to clean the house as aunt Dora and grandmother did the white people’s washing all day. Weekday’s supper was very simple—just porridge and meat. When there was no money we fried tomatoes. We never ate vegetables except on Sundays. We never had butter except we had a visitor.

At breakfast bread was cut up. The grown ups were given theirs first in saucers. Then I rationed the remainder in slices and bits of slices. Our youngest uncle not much older than I picked his first, which was the greatest quantity. Then I followed, and my brother and then my sister. We ate supper out of the same plate, we children; and meat was divided up into varying sizes and the ritual was repeated. We never sat at table. Only a visitor was treated to such modern ideas.

On Monday mornings at about four o’clock, I started off for suburbs to fetch washing for aunt Dora. Thursday and Friday afternoons I had to take back the washing. I carried the bundles on my head and walked about seven miles for a single journey. When I came back I went to school. I could never do my homework until about ten O’clock at night when I had washed up and everybody else had gone to bed.

We all slept in the same room. The wooden floor of the room we slept in had two large holes. There was always a sharp young draught. With all these our heads were a playground for mice, which also attacked food and clothing.

(Munby John, 1978; P. 27)

Text - 4

Aeroplane in a storm

Our aeroplane was just besides the airport building. It did not look too strong to me but I decided not to think about such things. We saw our luggage going out to it on trolleys and being loaded from underneath the aircraft. Next, three men and three girls, all in uniform, went over to the plane and entered
it. Over the loudspeakers we were told the plane was ready to leave and were asked to walk out to it. Everybody moved quickly in order to get the seats they wanted. I was unable to get a seat near the tail, but the plane looked stronger inside than it had from outside. I fastened my seat belt before we took off and tried to forget my nervousness.

After an hour’s flying I noticed black clouds ahead through my window. My nervousness immediately returned. An electric sign flashed on: ‘Fasten your seat belts, please’, and one of the hostesses made a similar request over the loudspeakers. She told us we were about to fly into a storm but added cheerfully there was nothing to worry about. The plane shook all over dropped about twenty feet and a great flash of lightning lit up the passenger compartment. For five minutes the three hostesses did their best to give out anti-sickness pills and comfort the passengers. The plane rose and fell. The sky became light again and soon we were flying steadily. The pilot had managed to get above the storm. I realised then that the plane was definitely stronger than it looked, but for all that I felt nervous.

(Stone Linton, 1969; P. 3)

Text - 5
Skating on thin ice

The sun was getting warm as Philip put on his skates and prepared to go for a run. At the edge of the lake the ice was still quite hard. He did not seem to realize there was any danger; but nearer the middle of the lake the warm sun had already begun to melt the ice.

After making a few practices turns, Philip set out with long sweeping strides to cross the lake at its widest point. In order to make himself go faster, he tried to race his own shadow as it fell on the ice ahead of him. When he was about half way across, crunch! - the weak ice suddenly broke beneath his weight, and with a splash he fell through it. All the air was sucked out of his lungs by the shock of the freezing water biting into his body, so that for twenty or thirty seconds afterwards he was not even able to scream. Then at last he found his voice shouted for help, and almost immediately afterwards blacked out.

When he opened his eyes again, he was lying in bed in his own home, with his father bending anxiously over him. ‘You should have known better than to do a silly thing like that’, were the first comfortless words he heard after his narrow escape.

* Blacked out-lose consciousness or memory temporarily.

(Cobb David, 1969; P. 4)

It was also decided to have objective type of test items with suitable distractions. The aim of multiple-choice questions is to ascertain whether students have
comprehended the passage fully. These type of questions train the learner in the technique of close reading, so that the powers of comprehension will grow. (Corbluth Julian, 1975, p.165). The investigator also set a few true/false questions. The true/false test is one of the most widely used tests of reading comprehension. Not only is the scoring of such a test straightforward and quick, but the scores obtained by the testees can be very reliable indices of reading comprehension provided that the items, themselves, are well constructed and that there are enough of them (J. B. Heaton, 1975 p.108).

4.2.1. Reading the Lines (R.L)

As stated earlier this is literal comprehension. It is getting the primary, direct, literal meaning of a word, idea, or sentence in context. This may mean repeating information from the text, making a summary of the context, of following directions as in an experiment. Asking where, who, what and when questions, usually produce answers at the literal level of comprehension. Under this dimension Reading the lines (R.L) the researcher selected five sub-skills and questions were taken based on the sub-skills.

4.2.1.1. Guessing the meaning of words and phrases (R.L1)

The ability to identify the main idea is necessary for interpretation and understanding of what is written. It is based on an accurate comprehension of the word, the phrase and the sentence (Emerald V. Dechant and Henry P. Smith, 1977, P.254).

Questions under this sub-skill are the following:

Text - 1
The Angel of Peace
Mother Teresa won the Nobel Prize for
a) Science  b) Medicine
   c) Peace    d) Law

Text - 2
The Four Clever Brothers
The father advised his sons to
a) earn their livelihood.  b) gain wisdom
   c) become wealthy  d) gain profit
The star-gazer in this story located the princess

a) in the sea  

b) on the hill  

c) in the forest  

d) in a desert  

Text - 4

Aeroplane in a storm

Where were the passengers when they were told their plane was ready to leave?

a) Walking quickly towards it.  

b) Beside the airport building  

c) Inside the airport building  

d) Watching the crew walking over.  

‘Fasten your seat belts, please’

a) One of the hostesses said  

b) These were the words on a notice.  

c) These words appeared on a sign board and spoken.  

d) These words came over the loudspeakers.  

4.2.1.2. Locating needed information (R.L2)

By merely verbalising the written symbol pupils cannot locate the specific information. On the pupil’s capacity to locate factual information and story content in a printed page depends his subsequent progress in comprehension (Kamala Nanda, 1989, p.127). To test this particular sub-skill the researcher sets the following questions.

Text - 1

The Angel of Peace

Mother Teresa’s parents were in

a) Calcutta  

b) Moti Jheel  

c) Yugoslavia  

d) America  

Text - 2

The Four Clever Brothers

At the cross-road each road was leading into

a) the same country.  

b) different countries  

c) distant countries  

d) their native country
The eldest brother's suggestions before departure was
a) to return home after four years
b) never to meet again

c) to meet again at that spot after four years
d) to become rich after four years.

The princess was _________ by a dragon.
a) eaten b) killed
c) wounded d) taken away forcibly

The reward announced by the king was
a) to give his daughter in marriage b) to give a part of his kingdom
c) to make the person a king d) to make him his minister

The four brothers wanted to save the princess
a) separately b) unitedly
c) leisurely d) quickly

Text - 3
All in a Day's work

Apart from coffee, breakfast always consisted of,
a) tea b) mealie-meal porridge
c) bread d) porridge and bread

Text - 4
Aeroplane in a storm

What did the hostesses do after there had been a flash, a lightning?
a) Behaved very kindly towards the passengers
b) Looked after the passengers better than they ever did.

c) Looked after the passengers, although it was not easy to do so.
d) Did everything they could for the passengers
Skating on thin ice

After he had fallen into the water he did not scream for twenty or thirty seconds because
a) he couldn’t think what to say
b) he was afraid his father would be angry
c) the cold water stopped him
d) he had fallen fainted breathing

4.2.1.3. Sequencing contents (R.L3)

The good reader sees the relationship between the main and the subordinate ideas and arranges them in some logical order. Reading in the content areas especially depends upon proficiency in organization skill. "This ability to string together ideas and events in a sequential order develops the right attitude to learning other comprehension skills (Kamala Nanda, 1989, p. 137). The following are the questions prepared to study this sub-skill.

All in a day's work

The ritual mentioned in paragraph 2 was
a) the order in which people got their food.
b) the cutting up of the bread into varying sizes
c) the dividing up of the meal into varying sizes
d) letting the youngest uncle take his food first.

Skating on thin ice

Put these events into their order of happening:
a. Philip put on his skates and made a few practice turns.
b. Philip fell through the ice
c. The lake was frozen and the sun started to melt the ice
d. Philip started to race his own shadow.
e. Philip saw his father bending over him.
f. Philip blacked out.
g. Philip shouted for help.
4.2.1.4. Understanding the context (R.L4)

Good readers being particular and multifaceted background to the experience of reading and thus animate the meaning of text. They understand the situation with the help of context clues (Clifford, 1997, p. 1). The good student is one who has learned “to find the facts”. He knows how to grasp information. The researcher sets the following questions under this category.

Text - 3
All in a day’s work
The previous night’s left-over are nothing but the remaining food of the previous night - Children ate their supper in different plates.

Text - 4
Aeroplane in a storm
The plane seemed to hang on one wing means
a) The plane turned upside b) The plane swung backwards down.
   and forwards
  c) The plane was on its side. d) The plane was falling

“Our aeroplane was just beside the airport building”, it means
a) The plane was at the side of the b) The plane was behind the airport building.
  c) The Plane was away from the d) The plane was opposite to the airport building.

4.2.1.5. Recognising contextual clues (R.L5)

In the English language the position of a word in a sentence determines the meaning it conveys. If its position is changed in the sentence, its meaning is also changed (Kamala Nanda, 1989, p. 125). The following is the question the investigator sets to test this sub-skill.
Text - 1
The Angel of Peace
‘This woman’ refers to
a) an angel b) Mother Teresa
 c) a nun- d) a woman in Calcutta
The above sub-skills are to be tested at the level of comprehension - Reading the
Lines.

4.2.2. Reading between the Lines (R.Bet.L)

This is the inferential level. Here we are concerned with what the book or passage
really means. The meaning is not actually stated but implied, and pupils have to read
between the lines. Asking how and why questions help to develop reading for inference.
Under this dimension the investigator selected three sub skills.

4.2.2.1. Skill of interpreting contents (R.Bet.L1)

Students may be able to understand the words, locate the facts, and retain and
recall ideas expressed and yet not be able to see their real underlying import (Kamala
Nanda, 1989, p.115). In a purposeful comprehension programme, sensing the true
meaning and applying the information for gaining a general achievement level is very
important. The following are the questions to check the sub skill - Skill of interpreting
information (R.Bet.L1).

Text - 1

The Angel of Peace

Mother Teresa is
a) an Indian        b) an American
b) a European      d) an African

In Calcutta lepers and diseased people were
a) given treatment  b) just begging.
c) living in huts.  d) not treated as human beings

Mother Teresa is a _________  but she serves people of all religions.
  a) Muslim        b) Hindu
    c) Buddhist    d) Catholic Christian

Text - 2

The Four Clever Brothers

The four brothers were all
a) young men       b) children
b) oldmen         d) sickmen

The brothers in the beginning wanted to try their luck
a) collectively    b) slowly
b) independently  d) hurriedly
The brothers were all very
a) brave  
  b) dangerous  [Correct]
  c) cowardly  
  d) foolish  [Correct]

Text - 3
All in a Day's Work

Their basic diet was
a) bread  
  b) porridge and meat  
  c) porridge  
  d) porridge, meat, vegetables and bread  [Correct]

They never sat at table because
a) this was reserved for the grown-ups.  
  b) this was kept for special occasions only.  [Correct]
  c) there were too many of them to sit round the table.  [Correct]
  d) they never had a table.  [Correct]

The writer did his homework after about 10 o'clock at night because
a) this was when he finished the washing up.  
  b) he had finished his domestic duties and it was quiet then.  [Correct]
  c) there was not enough room until everyone had gone to bed.  
  d) there was too much noise until everyone had gone to bed.  [Correct]

Text - 4
Aeroplane on storm

Why was the writer nervous?

a) The plane was not a very strong one.  
  b) Because he had to use a seat belt.  [Correct]
  c) He was unable to get a seat near the tail  
  d) The plane looked weak outside  [Correct]

Three men and three girls in uniform who entered into the plane were

a) Captains of the plane.  
  b) Passengers.  [Correct]
  c) V.I.Ps.  
  d) Pilots and Airhostesses.  [Correct]

Though the plane looked stronger inside again the writer became nervous after an hour because

a) he felt tired.  
  b) there were black clouds ahead.  [Correct]
  c) there was a severe storm.  [Correct]
  d) he felt bored.  [Correct]

Text - 5
Skating on thin ice

Philip fell into the water because

a) the lake was wide.  
  b) the ice at the surface could not bear his weight.  [Correct]
  c) he was skating very fast.  [Correct]
  d) he made a hole in the ice in the practice turns  [Correct]
He didn’t seem to realize there was any danger. This means.

a) he did not think about anything other than skating.
b) he knew but didn’t care about any danger.
c) he did not know about the presence of any danger.
d) he thought that it was not really dangerous.

4.2.2.2. Arriving at unsaid facts (R.Bet.L2)

After the student has had some success in reading for and stating the main idea, he is ready to read for details. Learning to follow directions through reading is reading for details. In directions every little step is significant. The student must give full attention and must look for a definite sequence of data (Mildred A. Dawson et al., 1959).

Growth in meaning and vocabulary have many levels. The student must develop precision in meaning; he must become acquainted with multiple meanings (Emerald V. Dechant et al., 1983, P.241). The following are the questions prepared for this sub-skill.

Text - 1
The Angel of Peace

Moti Jheel is a
a) school.  
b) hospital.
c) place in Calcutta.  
d) street in Calcutta.

Because of her services to the suffering humanity she
a) earned money.  
b) gained her living.
c) earned some property.  
d) gained love and respect.

4.2.2.3. Deriving implied meaning (R.Bet.L3)

To comprehend, the pupil must have knowledge of word meanings and be able to select the correct meaning from context (Davis, F.B., 1944, P.185). Vineyard and Massey found that even when intelligence is held constant there still a sufficient high relationship between comprehension and vocabulary proficiency to justify attempts to improve comprehension through vocabulary training (Edwin Vineyard, 1957, P.279).

Phrase reading is not synonymous with word reading. A phrase is more than the sum of the individual words that it contains. By understanding the verbal context pupils can identify the meaning of words, expressions and ideas.
Text - 1

The Angel of Peace

The dirty and crowded huts of Moti Jheel made her “restless”. The word “restless” here means
a) moving constantly. 
  b) unable to be calm and quiet
  c) gives boredom. 
  d) becomes impatient

She came out to give these people her “healing touch” “Healing-touch” in this line refers to
a) giving money 
  b) living with them.  
  c) sharing their sufferings. 
  d) serving for humanity.

‘The sight was really heart-breaking’. This means
a) dirty 
  b) ugly 
  c) not in living condition 
  d) sympathetic

Text - 3

All in a Day’s Work

“I started off, for suburbs to fetch washing for aunt Dora. “suburb” means
a) district outside the central part of a town or city. 
  b) a city. 
  c) an Urban area. 
  d) a thickly populated area.

Text - 4

Aeroplane on storm

“The pilot had managed to get above the storm”

a) He took the plane above the storm 
  b) He tried to get over the storm 
  c) He managed to control the plane. 
  d) He managed to fly through the storm.

4.2.3. Reading beyond the lines (R.Bey.L)

Pupils evaluate the quality, accuracy, or truthfulness of what is read. Questions at this level have to be far from searching. Under this main skill the investigator selected four sub skills. They are the following:

4.2.3.1. Establishing the cause of events (R.Bey.L1)

The reader should draw inferences from key issues in the text. He must try to relate the main ideas to his own experiences and interests and attempt to go creatively beyond the author’s view.

In developing inferential skills we are encouraging the reader to read critically and to analyse carefully what he has read. He is asked to use the information, which he obtains from the text and his own experiences and ideas in order to make inferences about the content of a text (John Potts, 1976, P.44). The following are the questions prepared for this sub-skill.
Text - 1

The Angel of Peace

Which seems to be unnatural in the case of the people in Moti Jheel
a) to go without food.  
b) to live without care.
c) to live without shelter.  
d) to live without clothing.

Text - 3

All in a Day's Work

The writer did most of the domestic work. This was
a) fair because his sister and brother  
b) unfair, because there were other people who could have helped him, especially as he had homework to do.
c) fair, because in this way he helped those who were paying for his education.  
d) unfair, because school boys have a lot of homework to do.

Text - 5

Skating on thin ice

The lake where Philip practiced skating was
a) round in shape.  
b) of irregular shape.
c) somewhat rectangular.  
d) conical in shape.

'a silly thing like that' indicates (last paragraph);
a) falling breathless.  
b) racing one's own shadow.
c) making long sweeping movements  
d) skating when the sun begins to melt over ice.

4.2.3.2. Estimating the worth of the details given (R.Bey.L2)

It involves the evaluation of the validity, accuracy and intellectual worthwhileness of the printed material (William Eller and Wolf Judith G. 1966. P. 259).
The good comprehender is a critical reader. He checks the truth, logic, reliability and accuracy of what is written.

Critical reading is slow, sentence by sentence, and thought by thought reading. It requires the reader to analyse carefully the writer's words, his purpose, and his implications (Emerald V. Dechant et al., 1983, P.260.). The investigator has taken the following questions under this sub-skill.
The Angel of Peace

The main strength of Mother Teresa behind her work is her
a) vast wealth  
  b) landed property  
  c) faith in God.  
  d) people’s support  

The people of the world have recognised the services of Mother Teresa

The Four Clever Brothers

The star-gazer is a person who studies
a) the stars as an astronomer  
  b) the movement of the planets  
  c) the heavenly body  
  d) palmistry  

All in a Day's work

They never ate vegetables except on Sundays because
a) they don’t like vegetables  
  b) they are content with fried tomatoes.  
  c) they like bread and butter very much  
  d) they don’t have enough money to buy vegetables  

The writer was
a) a young boy.  
  b) the eldest of the family.  
  c) the eldest child of the family.  
  d) a responsible member of the family.  

Aeroplane on storm

The writer at last accepted that the plane was
a) not strongly built.  
  b) strong enough to withstand the storm  
  c) strong only inside  
  d) strong only in its appearance  

Skating on thin ice

Which of these statements about the sun is correct? It was
a) rising from the east.  
  b) going down in the west.  
  c) in the middle of the sky.  
  d) not warm.  

4.2.3.3. Decoding Structural Peculiarities (R.Bey.L3)

The specific meaning elicited by a word is a function of the context in which the word occurs. It is a function of the environment of the word. This is not only the verbal or semantic context but also the cultural, syntactic, and structural context (Emerald V. Dechant et al., 1983, p. 241).
Context is considered one of the most important aids to word identification and to interpretation. Emans notes that context clues help students to:

1. Identify words they previously identified but forgot.
2. Check the accuracy of words tentatively identified by the use of other clues.
3. Gain rapid recognition of words by permitting them to anticipate what a word might be.
4. Identify words that are not identifiable in any other way. (Emans, 1968, p.13).

The researcher sets the following questions under this sub-skill.

**Text - 1**

**The Angel of Peace**

Mother Teresa was rich enough to help the poor people. \[\text{True / False}\]

**Text - 5**

**Skating on thin ice**

The ice in the middle of the lake melted first because

- a) the ice was thin.
- b) the ice at the edge was hard.
- c) the sun was very warm.
- d) it was deep in the middle and could hold melted ice at the bottom.

**After Philip's narrow escape**

- a) his father brought him home.
- b) his father was anxious about him.
- c) his father scolded him.
- d) his father felt comfortable.

**4.2.3.4. Judging characters and ideas (R.Bey.L4)**

Under the dimension Reading beyond the lines the readers can be asked to infer character traits on the basis of clues given by the author of a text. The reader must be able to recognize the author's intent and point of view, to distinguish fact from opinion, and to make judgements and inferences.

The critical reader reads beyond the materials. He formulates the question clearly, checks the authenticity of the materials, evaluates the author's credentials, looks for errors in reasoning, and develops a sensitivity to the rightness or wrongness of what is presented (Emerald V. Dechant *et al.*, 1983 p. 260). To check this sub-skill the researcher has taken the following questions.
Text - 2
The four clever brothers

The father seems to be
a) wise. b) cruel. c) miserly. d) kind.

The sons were __________ towards their father.
a) revengeful. b) respectful. c) obedient. d) kind.

The four brothers were eager to
a) help the king. b) marry the princess. c) save the princess. d) kill the dragon.

Text - 3
All in a Day's Work

The writer seems to suggest that he would have been more comfortable at night.
a) if the holes in the floor had been blocked. b) if the mice had been kept out.
c) without the draught and the mice. d) in a proper bed.

The writer is
a) a European. b) an American. c) an African. d) an Indian.

The draft tool thus prepared is given in Appendix – I.

4.2.4. Establishing Validity

4.2.4.1. Validity

The validity of a test, depends upon the fidelity with which it measures what it purports to measure. A test is valid when the performances that it measures correspond to the same performance as otherwise independently measured or objectively defined.

4.2.4.2. Content validity

"Content validity" is employed in the selection of items in educational achievement tests, and in many trade tests. Standard educational achievement examinations represent the consensus of many educators as to what a child of a given age or grade should know about arithmetic, reading, spelling, history and other subject fields (Garett, 1969, p.355).
The following panel of experts analysed the draft tool and found that the items were relevant and valid enough to study the skills of Reading comprehension.

Dr. P.S. Chandrakumar
Dr. Mrs. Expedit Olimani
Dr. J. Franklin

Thus the content validity of the tool has been established.

4.2.4.3. Item Validity

To establish the validity of the tool consisting of 67 items a pilot study was done. The draft tool for Reading comprehension was administered to randomly selected 100 students from three schools as detailed below:

Table 4.1.

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Name of the School</th>
<th>Type of the school</th>
<th>No. of Students</th>
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</table>

The students were instructed to read each text carefully and mark their choice for the given questions by putting a, b, c or d in the box provided.

The responses were scored using the key and the answer scripts were arranged in the increasing order of the scores obtained, from the lowest to the highest. The 27% of the sample (27 scripts) scoring the highest scores and 27% of the sample (27 scripts) scoring the lowest scores were picked up and named as high and low groups. The number of right responses, for each of the 67 items in the low and high groups were noted and tabulated, using J.C. Flanagon’s table, [Source: Merle W. Tate, Statistics in Education, New York: The Macmillan Co., 1955, p.364] the normalised biserial coefficient of correlation for each item was noted down. The obtained values are given in the following table:
4.2.4.4. Skill of Reading comprehension

Table 4.2.
Normalised biserial coefficient of correlation

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<th>Item No.</th>
<th>Number wise upper group</th>
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<td>56</td>
<td>6</td>
<td>22</td>
<td>0.38</td>
</tr>
<tr>
<td>61.</td>
<td>8</td>
<td>30</td>
<td>3</td>
<td>11</td>
<td>0.30</td>
</tr>
<tr>
<td>62.</td>
<td>6</td>
<td>22</td>
<td>3</td>
<td>11</td>
<td>0.21</td>
</tr>
<tr>
<td>63.</td>
<td>11</td>
<td>41</td>
<td>2</td>
<td>7</td>
<td>0.50</td>
</tr>
<tr>
<td>64.</td>
<td>2</td>
<td>7</td>
<td>1</td>
<td>4</td>
<td>0.19*</td>
</tr>
<tr>
<td>65.</td>
<td>15</td>
<td>56</td>
<td>0</td>
<td>0</td>
<td>0.70</td>
</tr>
<tr>
<td>66.</td>
<td>4</td>
<td>15</td>
<td>1</td>
<td>4</td>
<td>0.37</td>
</tr>
<tr>
<td>67.</td>
<td>10</td>
<td>37</td>
<td>0</td>
<td>0</td>
<td>0.58</td>
</tr>
</tbody>
</table>

The items with validity indices of 0.20 or more were regarded as satisfactory. The items shown by asterisk mark with validity indices of below 0.20 were eliminated. However item no. 20 in Text 2 - The Four Clever Brothers was found to be an essential one to elicit the skill of comprehension at the level of Reading between the lines. Therefore, the investigator modified the item a little to make it more explicit and understandable to the readers. The modified form of the item is worded as given in Appendix – II.

The brothers, in the beginning of their journey, wanted to try their luck
   a) collectively.       b) slowly.
   c) independently.      d) hurriedly.

With this modification it was hoped that the item would become more valid so as to be included in the final tool. Thus 55 items have been included in the final form of the tool and is given below:

4.2.4.5. Establishing Reliability

Using the same sample Reliability was established by test-retest method. Calculated Reliability coefficients for the skill of Reading comprehension, its dimensions and their sub-skills are given below –

- Reading comprehension
- Reading the lines (R.L)
- Guessing the meaning of words and phrases (R.L1)
- Locating needed information (R.L2)

<table>
<thead>
<tr>
<th>Skill</th>
<th>Reliability Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading comprehension</td>
<td>0.717</td>
</tr>
<tr>
<td>Reading the lines (R.L)</td>
<td>0.713</td>
</tr>
<tr>
<td>Guessing the meaning of words and phrases (R.L1)</td>
<td>0.721</td>
</tr>
<tr>
<td>Locating needed information (R.L2)</td>
<td>0.692</td>
</tr>
</tbody>
</table>
4.2.4.6. Establishing norms for the test on Reading comprehension

In order to establish the grade norms as low, moderate and high, the cut off points were fixed by computing Mean and Standard deviation:

- Scores falling below Mean – 1 S.D. were taken as low.
- Scores falling between Mean +1 S.D. and Mean – 1 S.D. were taken as moderate.
- Scores falling above Mean + 1 S.D. were taken as high.

Table 4.3.

<table>
<thead>
<tr>
<th>Norms for the test on Reading comprehension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
</tr>
<tr>
<td>1 – 35</td>
</tr>
</tbody>
</table>

4.3. READING READINESS

Reading is a developmental task. It is a task that the child must perform to satisfy his own needs and the demands of society. Reading readiness is understood to be a developmental stage at which constitutional and environmental factors have prepared the child for reading. Lamoreaux and Lee (1977), however, emphasized that each stage of reading is a step toward readiness for further reading. Betts (1957) pointed out that mental, emotional and physical readiness for sustained reading activities has as much significance in a modern primary school. Thus the reading readiness concept applies not only to initial reading instruction but to the teaching of every specific reading skill.
4.3.1. Rationale for the Tool – Test on Reading Readiness

According to the Scottish Council on Education (1966), it is important to realise that Reading readiness does not come by nature. The child brought up in a savage tribe that has no written records can have no reading readiness... reading readiness is not the product of maturation alone. Some degree of mental development and of other abilities and qualities must be attained before the reading task can be successfully performed, but the teacher's work cannot be accomplished by waiting on nature.

The Reading readiness test was prepared by the investigator under the close guidance of the research guide with six components.

4.3.1.1. Perceiving Information (R.R1)

Perception can be considered as the first-hand acquisition of information from the environment. Thus perceiving is acquiring information via sensory systems about the objects, places, and events of the world (Murray Thomas, 1990, p.249).

Pupils must learn that all sentences have a "who" or "what" and often answer the question: "where"?, "when"? and "how"?. A good reader identifies the answers quickly and easily. The given model test item has been taken from the Read and Listen work book:

27Late last night a burglar entered the home of Adam Mullins at 22 Clay Street apparently to steal several valuable paintings.

Who or What?  
What happened?  
Where?  
When?  
Why?

(Anderson et al., 1961, p.33)

Based on the above example five sentences with a set of questions were framed by the investigator to check the presence of the skill of Perceiving information.
Read the sentences below and answer the questions that follow:

E-g: Late last night a burglar entered the home of Mr. Ravi at 22 Kamarajar Street to steal valuable jewels.

Who? - A burglar
What happened? - Entered the home of Mr. Ravi
Where? - At 22 Kamarajar Street
When? - Late last night
Why? - To steal valuable jewels

A big tree was blown down by the wind across the road during the storm last week.

What? - Wind
What happened? - How?
Where? - Road

A boy in my class was punished by the headmaster yesterday in the assembly as he did many mistakes.

Who? - Headmaster
What happened? - Why?
Where? - Assembly

When I went to Delhi during last summer I saw an accident which happened due to the carelessness of a car driver.

What? - Car driver
What happened? - Why?
Where? - Road

Gandhiji and the British Viceroy Irwin met in Delhi on January 1931 and the Gandhi - Irwin Pact was signed.

Who? - Viceroy Irwin
What happened? - Why?
Where? - Delhi

Yesterday a goat went away from the herd in the hilly area in search of grassland.

What? - Goat
What happened? - Why?
Where? - Hill area
4.3.1.2. Perceiving the Concept (R.R2)

Understanding words require a psychological orientation far beyond the child’s mental capacity. Readiness is determined by interest in the topic, familiarity with the vocabulary, and the intellectual ability to respond to the ideas (Paul S. Anderson, 1964, p.232). The pupils reap much benefit from exercises with the synonyms of words. This exercise is more meaningful when the pupil uses the word in a sentence and then substitutes his suggested synonym in its place. Such exercises, in the course of time, help the pupils to perceive the concept correctly.

Matching of words with definitions is an exercise of this nature. The following test item was suggested by Emerald V. Dechant (1970) to study the skill of Perceiving the concept.

29Match the following
(E-g.) This is a piece of clothing - dress

(Emerald V. Dechant, 1977, p. 379)

Having this as a model the investigator prepared the following test item.

Match the following:
1. This comes out of the chimney handkerchief
2. This is a place in which we pray medicine
3. This we use to cover ourselves smoke
4. This we use when we blow our noses blanket
5. This we use when we are sick temple/church/mosque

4.3.1.3. Perceiving the root (R.R3)

Being able to break a word into its root, prefix and suffix is a valuable skill in developing meaning for a word. The root is the main part of a word. It is the reservoir of meaning. To test this skill of Perceiving the root the following item has been given.

Identify the root that is used in each of the three words:

(E-g) Washerman, Washed, Washable
1. active, actor, action
2. captor, captive captured
3. abduct, ductile, deduct
4. movable, movement, mover
5. export, import, report
6. transcript, inscription, manuscript

Wash
4.3.1.4. Perceiving similar expression (R.R4)

In some exercises students are asked to select the same thing as the underlined words in the given sentences. Such exercises help the pupils to develop knowledge of the suffixes. Therefore, the following test item has been given based on the pupil's knowledge of suffixes to identify the sub-skill of reading readiness - Perceiving similar expression.

Select the word that says the same thing as the underlined words in each of the following sentences and write the answers in the box provided:

(E-g) The teacher is kind enough to handle these kids.
   a. kind hearted  
   b. lovable

1. The dog was watching the child carefully or otherwise he would wander onto the street.
   a. kind hearted  
   b. lovable

2. The sky was without a cloud
   a. cloudless  
   b. cloudy

3. The man did not move a muscle. He waited for the judge's verdict
   a. movable  
   b. motionless

4. Are you the man who helps me with this job?
   a. helpful  
   b. helper

5. The United States is constantly forced to bring its armed forces up to modern standards.
   a. modern  
   b. modernize

(Emerald v. Dechant, 1977, P.387)
4.3.1.5. Readiness to guess the meaning (R.R5)

Another important component of Reading readiness is Readiness to guess the meaning. Generally it applies to the skill of decoding the figurative language. The following items have been designed with necessary modifications of the items provided by.

Choose the one that best explains the underlined words in the context of the sentences and write the answers in the box provided:

31. She turned **white as snow** at the news.
   a. She became white in colour
   b. She was shocked
   c. She felt irritated

1. They had so much fun playing that the **minutes** flew by.
   a. Minutes can fly like birds.
   b. Time went very fast.
   c. The minutes were riding on an airplane.

2. He **raced like lightning** down the track.
   a. The lightning frightened him.
   b. He ran fast down the track.
   c. He tried to run faster than the lightning.

3. Sara **stood glued** to the ground.
   a. She did not move.
   b. She stepped in some glue.
   c. Her feet were fastened tightly to the ground.

4. Hyderabad and Secondrabad are **twin cities**.
   a. They look very much alike.
   b. Many twins live in these cities.
   c. They grew up side by side.

5. Mala was **as happy as a bird**.
   a. She was free and happy as a bird.
   b. She flew like a bird.
   c. She sang beautiful like a bird.

(Emerald V. Dechant, 1977, p. 391)

In the above items pupils were asked to pick from the three choices the one that best explains the underlined words in the context of the sentence.

4.3.1.6. Reading graphs and tables (R.R6)

An important component of reading readiness is the ability to read graphs. The bar graph compares the size of quantities. It expresses amounts. The bar graph shows how much more or less one type is than the other. The following graph and table are...
incorporated in the tool for studying the skill of Reading graphs and tables. A table is a simple listing of facts and information. It is as useful as that of a graph to elicit the readiness of a person to read graphs and tables.

Read the graph and answer the questions given below:

- Mumbai
- Delhi
- Calcutta
- Chennai

1. The population of Mumbai is about
   a) Eighty thousand
   b) Seventy thousand
   c) Seven million
   d) Eight million.

2. The city of Delhi has more people than the city of Calcutta

3. Mumbai is highly populated

Read the table and tick the right answer:

<table>
<thead>
<tr>
<th>Average Retail prices of Food in Rupees,</th>
<th>1975</th>
<th>1985</th>
<th>1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coffee, 1 Kg</td>
<td>79</td>
<td>86</td>
<td>110</td>
</tr>
<tr>
<td>Sugar, 5 Kg</td>
<td>48</td>
<td>51</td>
<td>52</td>
</tr>
<tr>
<td>Butter, 1 Kg</td>
<td>72</td>
<td>85</td>
<td>72</td>
</tr>
<tr>
<td>Tea, 1 Kg</td>
<td>63</td>
<td>64</td>
<td>81</td>
</tr>
</tbody>
</table>

1. The title of the table indicates that the prices given are in rupees
2. The title of the table indicates that wholesale prices are given
3. The average price of butter in 1985 was 85 rupees.
4. Only butter showed no increase in 1995 over 1985
5. The lowest price per kg of any item listed is sugar.

The draft tool thus prepared is given below in full form.
4.3.2. Test on Reading Readiness

I. Read the sentences below and answer the questions that follow:

E-g: Late last right a burglar entered the home of Mr. Ravi at 22 Kamarajar Street to steal valuable jewels.

Who? - A burglar
What happened? - Entered the home of Mr. Ravi
Where? - At 22 Kamarajar Street
When? - Late last night
Why? - To steal valuable jewels

A big tree was blown down by the wind across the road during the storm last week.

What? When?
What happened? How?
Where?

A boy in my class was punished by the headmaster yesterday in the assembly as he did many mistakes?

Who? When?
What happened? Why?
Where?

When I went to Delhi during last summer I saw an accident which happened due to the carelessness of a car driver.

Who? When?
What happened? How?
Where?

Gandhiji and the British Viceroy Irwin met in Delhi on January 1931 and the Gandhi - Irwin Pact was signed.

Who? When?
What happened? Why?
Where?

Yesterday a goat went away from the herd in the hilly area in search of grassland.

Who? When?
What happened? Why?
Where?

II. Matching the following:

(E-g) This is a piece of clothing

dress

1. This comes out of the chimney

handkerchief

2. This is a place in which we pray

medicine
3. This we use to cover ourselves  
smoke  

4. This we use when we blow our noses  
blanket  

5. This we use when we are sick  
temple/church/mosque  

III. Identify the root that is used in each of the three words:

(E-g) Washerman, Washed, Washable
1. active, actor, action
2. captor, captive, captured
3. abduct, ductile, deduct
4. movable, movement, mover
5. export, import, report
6. transcript, inscription, manuscript
7. monograph, biography, graphic
8. automobile, automatic, autobiography
9. looks, looking, looked
10. worker, worked, working

IV. Select the word that says the same thing as the underlined words in each of the following sentences and write the answers in the box provided.

(E-g) The teacher is kind enough to handle these kids.
1. kind hearted  
2. lovable  

1. The dog was watching the child carefully or otherwise he would wander onto the street.
   a. kind hearted  
   b. lovable  

2. The sky was without a cloud
   a. cloudless  
   b. cloudy  

3. The man did not move a muscle. He waited for the judge’s verdict
   a. movable  
   b. motionless  

4. Are you the man who helps me with this job?
   a. helpful  
   b. helper  

5. The United States is constantly forced to bring its armed forces up to modern standards.
   a. modern  
   b. modernize
V. Choose the one that best explains the underlined words in the context of the sentences and write the answers in the box provided:

(E-g) She turned white as snow at the news.
   a. She became white in colour
   b. She was shocked
   c. She felt irritated

1. They had so much fun playing that the minutes flew by.
   a. Minutes can fly like birds.
   b. Time went very fast.
   c. The minutes were riding on an airplane.

2. He raced like lightning down the track.
   a. The lightning frightened him.
   b. He ran fast down the track.
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3. Sara stood glued to the ground.
   a. She did not move.
   b. She stepped in some glue.
   c. Her feet were fastened tightly to the ground.

4. Hyderabad and Secondrabad are twin cities.
   a. They look very much alike.
   b. Many twins live in these cities.
   c. They grew up side by side.

5. Mala was as happy as a bird.
   a. She was free and happy as a bird.
   b. She flew like a bird.
   c. She sang beautiful like a bird.

VI. Read the graph and answer the questions given below:

1. The population of Mumbai is about
   a) Eighty thousand  
   b) Seventy thousand
   c) Seven million  
   d) Eight million.

2. The city of Delhi has more people than the city of Calcutta
   True / False

3. Mumbai is highly populated
   True / False
VII. Read the table and tick the right answer:

<table>
<thead>
<tr>
<th>Average Retail prices of Food in Rupees,</th>
<th>1975</th>
<th>1985</th>
<th>1995</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>Sugar, 5 Kg</td>
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<td>51</td>
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<tr>
<td>Butter, 1 Kg</td>
<td>72</td>
<td>85</td>
<td>72</td>
</tr>
<tr>
<td>Tea, 1 Kg</td>
<td>63</td>
<td>64</td>
<td>81</td>
</tr>
</tbody>
</table>

1. The title of the table indicates that the prices given are in rupees  
2. The title of the table indicates that wholesale prices are given  
3. The average price of butter in 1985 was 85 rupees.  
4. Only butter showed no increase in 1995 over 1985  
5. The lowest price per kg of any item listed is sugar.

4.3.3. Establishing Validity

4.3.3.1. Theoretical Validity

After going through a wide range of studies related to Reading readiness the investigator finds that it is the developmental stage to prepare the child for reading. The investigator made use of the studies related to Reading readiness and prepared the draft tool with six components to test Reading readiness. Therefore it may be stated that the tools is built on a valid theoretical base.

4.3.3.2. Content Validity

To establish content validity, the test constructor analyzes the content of the area that the test is to appraise and structures a representative instrument to measure the various aspects of that content (Deobold B. Van Dalen, 1979 p.136). Content validity is the extent to which a measuring instrument provides adequate coverage of the topic under study (C. R. Kothari 1985 p.71). The following panel of experts analyzed the draft tool and identified that the items were relevant to study the skill of Reading readiness.

1. Dr. S. Mohan  
2. Dr. S. Purushothaman  
3. Dr. G. Reeta Goretti Lourdes.
4.3.3.3. Item Validity

To establish the validity of the tool, which consists of 58 items, a pilot study was done on a small group of students. Thirty students from three schools were selected and the newly prepared Reading readiness test was administered.

Table 4.4.
List of sample schools selected for pilot study

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Name of the school</th>
<th>Type of the school</th>
<th>No. of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>SVGHSS</td>
<td>Girls'</td>
<td>10</td>
</tr>
<tr>
<td>2.</td>
<td>SVBHSS</td>
<td>Boys'</td>
<td>10</td>
</tr>
<tr>
<td>3.</td>
<td>CMNHS</td>
<td>Co-educational</td>
<td>10</td>
</tr>
</tbody>
</table>

The students were instructed to read the example for each exercise carefully and attend all the items.

The responses were scored using the key and the Item Difficulty was found out. The single most important characteristics of an item to be accurately determined is its difficulty. Item difficulty is determined as the proportion of correct responses. The formula for item difficulty is -

$$P = \frac{\Sigma Cr}{N}$$

where

- $P$ = difficulty, proportion correct
- $\Sigma Cr$ = the sum of correct responses
- $N$ = the number of examinees.

By the same token, the proportion incorrect is equal to 1 minus the proportion correct and is represented by the symbol “$q$”. This may be stated in algebraic form as follows:

$$q = 1 - P$$

where

- $q$ = the proportion incorrect
- $P$ = the proportion correct.....

(Grant Henning, 1987 P. 49)
4.3.3. Item difficulty calculated as proportion correct and proportion incorrect is given below for all 58 items.

Table 4.5.

<table>
<thead>
<tr>
<th>Item No.</th>
<th>No. of correct Responses</th>
<th>Proportion of correct $P$</th>
<th>Proportion Incorrect $q = 1 - P$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>26</td>
<td>0.87</td>
<td>0.13*</td>
</tr>
<tr>
<td>2</td>
<td>22</td>
<td>0.73</td>
<td>0.27</td>
</tr>
<tr>
<td>3</td>
<td>19</td>
<td>0.63</td>
<td>0.37</td>
</tr>
<tr>
<td>4</td>
<td>27</td>
<td>0.90</td>
<td>0.10*</td>
</tr>
<tr>
<td>5</td>
<td>19</td>
<td>0.63</td>
<td>0.37</td>
</tr>
<tr>
<td>6</td>
<td>29</td>
<td>0.97</td>
<td>0.03*</td>
</tr>
<tr>
<td>7</td>
<td>26</td>
<td>0.87</td>
<td>0.13*</td>
</tr>
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<td>8</td>
<td>22</td>
<td>0.73</td>
<td>0.27</td>
</tr>
<tr>
<td>9</td>
<td>28</td>
<td>0.93</td>
<td>0.07*</td>
</tr>
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<td>0.33</td>
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<td>0.50</td>
</tr>
<tr>
<td>12</td>
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<td>0.70</td>
<td>0.30</td>
</tr>
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<td>13</td>
<td>22</td>
<td>0.73</td>
<td>0.27</td>
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<tr>
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<td>16</td>
<td>16</td>
<td>0.57</td>
<td>0.43</td>
</tr>
<tr>
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<td>16</td>
<td>0.57</td>
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<td>Proportion of correct $P$</td>
<td>Proportion Incorrect $q = 1 - P$</td>
</tr>
<tr>
<td>---------</td>
<td>--------------------------</td>
<td>---------------------------</td>
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<tr>
<td>29</td>
<td>19</td>
<td>0.63</td>
<td>0.37</td>
</tr>
<tr>
<td>30</td>
<td>18</td>
<td>0.60</td>
<td>0.40</td>
</tr>
<tr>
<td>31</td>
<td>30</td>
<td>1.00</td>
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</tr>
<tr>
<td>32</td>
<td>13</td>
<td>0.43</td>
<td>0.57</td>
</tr>
<tr>
<td>33</td>
<td>22</td>
<td>0.73</td>
<td>0.27</td>
</tr>
<tr>
<td>34</td>
<td>27</td>
<td>0.90</td>
<td>0.10*</td>
</tr>
<tr>
<td>35</td>
<td>22</td>
<td>0.73</td>
<td>0.27</td>
</tr>
<tr>
<td>36</td>
<td>18</td>
<td>0.60</td>
<td>0.40</td>
</tr>
<tr>
<td>37</td>
<td>22</td>
<td>0.73</td>
<td>0.27</td>
</tr>
<tr>
<td>38</td>
<td>29</td>
<td>0.97</td>
<td>0.03*</td>
</tr>
<tr>
<td>39</td>
<td>29</td>
<td>0.97</td>
<td>0.03*</td>
</tr>
<tr>
<td>40</td>
<td>30</td>
<td>1.00</td>
<td>0.00*</td>
</tr>
<tr>
<td>41</td>
<td>9</td>
<td>0.30</td>
<td>0.70</td>
</tr>
<tr>
<td>42</td>
<td>20</td>
<td>0.67</td>
<td>0.33</td>
</tr>
<tr>
<td>43</td>
<td>19</td>
<td>0.63</td>
<td>0.37</td>
</tr>
<tr>
<td>44</td>
<td>18</td>
<td>0.60</td>
<td>0.40</td>
</tr>
<tr>
<td>45</td>
<td>22</td>
<td>0.73</td>
<td>0.27</td>
</tr>
<tr>
<td>46</td>
<td>18</td>
<td>0.60</td>
<td>0.40</td>
</tr>
<tr>
<td>47</td>
<td>9</td>
<td>0.30</td>
<td>0.70</td>
</tr>
<tr>
<td>48</td>
<td>9</td>
<td>0.30</td>
<td>0.70</td>
</tr>
<tr>
<td>49</td>
<td>12</td>
<td>0.40</td>
<td>0.60</td>
</tr>
<tr>
<td>50</td>
<td>19</td>
<td>0.63</td>
<td>0.37</td>
</tr>
<tr>
<td>51</td>
<td>17</td>
<td>0.57</td>
<td>0.43</td>
</tr>
<tr>
<td>52</td>
<td>22</td>
<td>0.73</td>
<td>0.27</td>
</tr>
<tr>
<td>53</td>
<td>25</td>
<td>0.83</td>
<td>0.17*</td>
</tr>
<tr>
<td>54</td>
<td>22</td>
<td>0.73</td>
<td>0.27</td>
</tr>
<tr>
<td>55</td>
<td>8</td>
<td>0.26</td>
<td>0.74*</td>
</tr>
<tr>
<td>56</td>
<td>26</td>
<td>0.86</td>
<td>0.14*</td>
</tr>
<tr>
<td>57</td>
<td>16</td>
<td>0.53</td>
<td>0.47</td>
</tr>
<tr>
<td>58</td>
<td>25</td>
<td>0.83</td>
<td>0.17*</td>
</tr>
</tbody>
</table>
The table shows the item difficulty as proportion correct and proportion incorrect for 58 items. The higher the difficulty, the lower the proportion correct and the higher the proportion incorrect. Some authors advocate rejection of items with a proportion of correct answers that is less than 0.33 or that exceeds 0.67. (e.g. Tuckman, 1978, p.50). This is not a general thumb rule. Popham (1978) has correctly pointed out that the systematic rejection of all items that are at the extremes of the difficulty continuum may result in a test that is insensitive to the objectives of instruction. When measuring achievement, we may need to include some very easy or very difficult items to ensure that the test itself has face or content validity.

For the present Reading readiness test items with a proportion of correct answers that is less than 0.30 or that exceeds 0.75 are rejected. Thus 40 items have been included in the final draft. Items with an asterisk mark in the table are deleted.

4.3.3.5. Establishing Reliability

Making use of the same set of sample reliability was established by test-retest method. Calculated reliability coefficients are given below –

<table>
<thead>
<tr>
<th>Reading readiness</th>
<th>Perceiving information (RR1)</th>
<th>Perceiving the concept (RR2)</th>
<th>Perceiving the root (RR3)</th>
<th>Perceiving similar expression (RR4)</th>
<th>Readiness to guess the meaning (RR5)</th>
<th>Reading graphs and tables (RR6)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.632</td>
<td>0.739</td>
<td>0.695</td>
<td>0.714</td>
<td>0.683</td>
<td>0.643</td>
</tr>
</tbody>
</table>

4.3.3.6. Establishing norms for the test on Reading readiness

In order to establish the grade norms as low, moderate and high, the usual procedure was adopted as in the case of the previous one that is Reading comprehension.

Table 4.6.

<table>
<thead>
<tr>
<th>Norms for the test on Reading readiness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
</tr>
<tr>
<td>1 - 15</td>
</tr>
</tbody>
</table>
4.4. READING ATTITUDE

Reading attitude was the third tool prepared by the investigator with the help of the research guide to find out the students’ attitude towards reading.

4.4.1. Rationale for the Tool – Test on Reading Attitude

Attitudes towards reading have received considerably less attention than achievement in reading probably because of the lack of valid and reliable instruments by which to assess pupils’ attitudes (Louis Cohen, 1976, p.5). Recently Askov (1973) has devised a measure for assessing the attitudes of Primary school pupils towards reading. The instrument requires neither reading nor writing skills on the subjects’ part; it engages their attention without revealing its purpose and is easy and quick to administer in a classroom situation.

The Primary Pupil Reading attitude Inventory (Askov, 1973) consists of 30 pages, each requiring a choice to be made between the two pictured activities. 18 of the choices involve some form of reading activity; the other 12 are distracters, presenting choices that do not involve reading. Subjects are required to mark with a cross the one activity on each page which he or she likes best. Based on the inventory the researcher prepared 15 pairs of pictures on reading and non-reading.
4.4.2. Draft tool for Reading attitude

Look at the following pairs of pictures and tick the one from each which you like most.

1. [Boy playing soccer vs. Boy reading a book]
2. [Man reading a book in a room vs. Man reading a book in a chair]
3. [Ladies sitting in a room vs. Girls sitting in a room]
4.4.3. Establishing Validity

4.4.3.1. Content Validity

A test cannot be exhaustive but must be selective in content. Important decisions must be made about the method of content selection. Content validity is concerned with whether or not the content of the test is sufficiently representative and comprehensive for the test to be a valid measure of what it is supposed to measure. The following experts in the field of English Language Teaching analysed the draft tool and identified that the items are relevant.

1. Dr. P.S. Chandrakumar
4. Dr. S. Purushothaman
5. Dr. J. Franklin.

4.4.3.2. Item Validity

The draft tool was administered on 30 students randomly selected from 3 randomly chosen schools.

Table 4.7.
Sample schools selected for pilot study

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Name of the school</th>
<th>Type of the school</th>
<th>No. of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>SVGHSS</td>
<td>Girls'</td>
<td>10</td>
</tr>
<tr>
<td>2.</td>
<td>SVBHSS</td>
<td>Boys'</td>
<td>10</td>
</tr>
<tr>
<td>3.</td>
<td>CMNHS</td>
<td>Co-educational</td>
<td>10</td>
</tr>
</tbody>
</table>

The students were instructed to tick (✓) the picture they prefer to the other.

The highest scoring group and the lowest scoring group were separated from the entire sample on the basis of total score on the test. The fifteen students with highest total scores are compared in their performance on all 15 items with the fifteen students with lowest total scores, using the formula,

\[
D^{38D} = \frac{Hc}{Hc + Lc}
\]

where

- \(D\) = discriminability
- \(Hc\) = the number of correct responses in the high group
- \(Lc\) = the number of correct responses in the low group

(Grant Henning 1987, P. 51)
The following table shows the computation of item discriminability for 15 items by sample separation.

### 4.4.3.3. Item Discriminability for Reading attitude

Table 4.8.

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Hc</th>
<th>Lc</th>
<th>Hc + Lc</th>
<th>D = Hc / (Hc + Lc)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>14</td>
<td>12</td>
<td>26</td>
<td>0.54*</td>
</tr>
<tr>
<td>2</td>
<td>9</td>
<td>1</td>
<td>10</td>
<td>0.90</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
<td>1</td>
<td>9</td>
<td>0.88*</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>1</td>
<td>5</td>
<td>0.80</td>
</tr>
<tr>
<td>5</td>
<td>11</td>
<td>5</td>
<td>16</td>
<td>0.69</td>
</tr>
<tr>
<td>6</td>
<td>15</td>
<td>10</td>
<td>25</td>
<td>0.60</td>
</tr>
<tr>
<td>7</td>
<td>9</td>
<td>5</td>
<td>14</td>
<td>0.64</td>
</tr>
<tr>
<td>8</td>
<td>5</td>
<td>0</td>
<td>5</td>
<td>1.00</td>
</tr>
<tr>
<td>9</td>
<td>4</td>
<td>3</td>
<td>7</td>
<td>0.57*</td>
</tr>
<tr>
<td>10</td>
<td>11</td>
<td>4</td>
<td>15</td>
<td>0.73</td>
</tr>
<tr>
<td>11</td>
<td>14</td>
<td>14</td>
<td>28</td>
<td>0.50*</td>
</tr>
<tr>
<td>12</td>
<td>7</td>
<td>1</td>
<td>8</td>
<td>0.88</td>
</tr>
<tr>
<td>13</td>
<td>7</td>
<td>5</td>
<td>12</td>
<td>0.58*</td>
</tr>
<tr>
<td>14</td>
<td>5</td>
<td>1</td>
<td>6</td>
<td>0.83</td>
</tr>
<tr>
<td>15</td>
<td>13</td>
<td>13</td>
<td>26</td>
<td>0.50*</td>
</tr>
</tbody>
</table>

By this method, discriminability may range from zero to one. The higher it is, the better. For the present tool a discriminability index of 0.58 was considered the lowest acceptable discriminability. The items with an asterisk mark are deleted. Thus 9 items have been included in the final draft.

### 4.4.3.4. Establishing Reliability

The same set of sample was used to establish the Reliability, using test-retest method. Calculated reliability coefficient is given below –

Reading attitude - 0.725
4.4.3.5. Establishing norms for the test on Reading attitude

Mean was taken as the cut off point for fixing the nature of Reading attitude.

- Mean and above Mean – Positive
- Below Mean – Negative

<table>
<thead>
<tr>
<th>Table 4.9. Norms for the test on Reading attitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative</td>
</tr>
<tr>
<td>1 – 6</td>
</tr>
</tbody>
</table>

Students who get 1 – 6 marks are considered to have negative attitude and those who get 7+ are considered to have positive attitude.

4.5. COGNITIVE STYLE

The tool for identifying the Cognitive style was constructed by the investigator under the close guidance of the research guide to find out the cognitive style of the standard IX students.

4.5.1. Rationale for the tool – Test on Cognitive style

Wittrock (1978) has defined “Cognitive style” as the relatively stable way that people “perceive, conceptualize and organize information”. Field dependence / field independence is, perhaps, the dual factor most mentioned in discussions of cognitive style in second language research (Evelyn Marcussen Hatch 1983, P. 222).

According to Witkin et al., (1977) field dependence is a global cognitive style where the individual fails to differentiate parts of a “field” from the general background (i.e., can’t see the trees of the forest). Field independence is the cognitive style used by people who identify, organize, and impose structure on the parts of the field (i.e., see the trees and organize them within a forest). The psychological test for field independence/dependence is the Embedded Figures Test. In this test students are shown a figure and then asked to find it again in an array of figures.

The ability to separate out pieces from a whole may be useful in language learning in someway (Evelyn Marcussen Hatch, 1983, P. 223). The investigator with the help of the research guide and an expert in graphics constructed 30 such figures incorporating distinct parts for the purpose of establishing field dependence or field
independence of the subjects. The cut out of each figure is pasted on a card and is shown
to the subjects one by one. Following the normal procedure it has been decided to set a
time limit of 20 seconds for every subject to locate the figure in an array of figures.

4.5.2. Establishing Scoring Procedure

For the purpose of judging the scores to be assigned to the responses a pilot study
was conducted. The investigator chose a small sample of 20 standard IX students by
random comprising the following categories.

<table>
<thead>
<tr>
<th></th>
<th>Very high Achievers</th>
<th>High Achievers</th>
<th>Average Achievers</th>
<th>Poor Achievers</th>
<th>Very poor Achievers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>.2</td>
<td>2</td>
</tr>
<tr>
<td>Girls</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

Then the researcher administered the 30 figures one by one herself and carefully
noted the time taken by all in order to locate the hidden part. It was noted that the time
taken by individuals varied from a minimum of 9 seconds to 18 seconds. Therefore it
was decided to award a score of 1 to an individual for a figure if he/she locates the part
correctly. Thus according to the time taken credit scores are to be awarded to the
individual as structured below:

<table>
<thead>
<tr>
<th>Time Taken</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>+4</td>
</tr>
<tr>
<td>10</td>
<td>+3</td>
</tr>
<tr>
<td>12.6</td>
<td>+2</td>
</tr>
<tr>
<td>15.1</td>
<td>+1</td>
</tr>
<tr>
<td>17.6</td>
<td>0</td>
</tr>
</tbody>
</table>

If a student locates the part correctly within 9 seconds he/she will be awarded
1 + 4 = 5 scores. This is the maximum score possible for a right response. However if
an individual locates the part correctly after 17.5 seconds he/she can’t earn any score.
4.5.3. Establishing Validity

4.5.3.1. Content Validity

This kind of validity depends on a careful analysis of the language being tested and of the particular course objectives. In order to ensure content validity it is necessary to seek advice from content experts. They may examine each part of the test and will provide a global comprehensiveness. Weaker part of the test would be eliminated until the experts were in perfect agreement that the test exhibited content validity. Thus the test with 30 items was given to the following panel of experts.

1. Dr. S. Mohan
2. Dr. Mrs. Expedit Olimani
3. Dr. George Stephen

From the 30 figures 10 were not recommended for inclusion in the tool and so they were deleted. Therefore only 20 figures were retained. The draft tool thus prepared is given below in full form.
Draft tool for Cognitive style

Find the Hidden Figures

1

2

3

4

5
4.5.3.2. Item Validity

To establish the validity of the tool with 20 figures a pilot study was done on a small group of students. It was administered on 30 students following the above scoring procedure.

Table 4.11.
Sample schools for the pilot study

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Name of the School</th>
<th>Type of the school</th>
<th>No. of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>SVGHSS</td>
<td>Girls'</td>
<td>10</td>
</tr>
<tr>
<td>2.</td>
<td>SVBHSS</td>
<td>Boys'</td>
<td>10</td>
</tr>
<tr>
<td>3.</td>
<td>CMNHS</td>
<td>Co-educational</td>
<td>10</td>
</tr>
</tbody>
</table>

The highest scoring group and the lowest scoring group were separated from the entire sample on the basis of total score on the test. The 15 students in the highest scoring group was compared with the 15 students in the lowest scoring group for all the 20 items. The fifteen students with highest total scores are compared in their performance on all 20 items with the 15 students with lowest total scores, using the formula,

\[
D = \frac{H_c}{H_c + L_c}
\]

The following table shows the computation of item discriminability for 20 items by sample separation.

4.5.3.3. Computation of item discriminability for Cognitive style

Table 4.12.
Item discriminability for Cognitive style

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Hc</th>
<th>Lc</th>
<th>Hc + Lc</th>
<th>D = ( \frac{H_c}{H_c + L_c} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>7</td>
<td>1</td>
<td>8</td>
<td>0.88</td>
</tr>
<tr>
<td>2.</td>
<td>6</td>
<td>0</td>
<td>6</td>
<td>1.00</td>
</tr>
<tr>
<td>3.</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>0.40*</td>
</tr>
<tr>
<td>4.</td>
<td>9</td>
<td>0</td>
<td>9</td>
<td>1.00</td>
</tr>
<tr>
<td>5.</td>
<td>6</td>
<td>2</td>
<td>8</td>
<td>0.75</td>
</tr>
<tr>
<td>6.</td>
<td>11</td>
<td>7</td>
<td>18</td>
<td>0.92</td>
</tr>
<tr>
<td>7.</td>
<td>5</td>
<td>0</td>
<td>5</td>
<td>1.00</td>
</tr>
</tbody>
</table>
In the given tool the discriminability index of 0.55 was considered the lowest acceptable discriminability. Thus items with an asterisk mark were deleted and 15 items were retained in the final form of the tool.

4.5.3.4. Establishing Reliability

Using the same reliability was established by test-retest method. Calculated reliability coefficient is given below –

\[
\text{Cognitive style} \quad - \quad 0.686
\]

4.5.3.5. Establishing norms for the test on Cognitive style

The cut off point for **Cognitive style** (field dependent / independent) is given below –

- Mean and Below Mean – Field dependent
- Above Mean – Field independent

Table 4.13.

<table>
<thead>
<tr>
<th>Field dependent</th>
<th>Field independent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 7</td>
<td>8+</td>
</tr>
</tbody>
</table>

Students who get 0 – 7 marks in the test on **Cognitive style** are considered be field dependent and those who get above 8 are considered to be field independent.
4.6. CONCLUSION

The investigator thus prepared four research tools and established the validity and reliability of the test items.
4.7. REFERENCES


11. Ibid. P.137.


19. Potts, John, 1976, Beyond Initial Reading, London: George Allen and Irwin Ltd., p. 44.


22. Ibid. p. 241.


30. Ibid. P.387.

31. Ibid. P.391.


40. Ibid. p.223.