

NARRATIVE CONSTRUCTION OF APTITUDE TEST QUESTIONS: AN EXPLORATION

AMRITA BASU & SOHINI DATTA

Department of Applied Science & Humanities, Haldia Institute of Technology, Haldia, West Bengal, India

ABSTRACT

The paper uses the tools of 'narratology' to explore the narrative predominance in mathematical questions as seen in most of the 'aptitude tests' carried out, for placements, by various companies (core sectors as well as software sectors) mainly in private engineering colleges. The intertwining of 'narrative' or the 'mini-story' element constructed in English with mathematical questions is a characteristic found generally in texts for junior classes at the school level. There is, however, a total fall-out with the mini-story element in mathematics questions designed for senior school students (i.e. after Std X). This process continues through the four years of studying the B.Tech degree, where irrespective of the branch, pure mathematics papers generally continue only till the third semester, with minimum focus on narrative oriented questions. That the aptitude test questions are constructed in English and have a frequent 'mini-narrative' element brings on a reemergence of narrative constructed in the English language intertwining itself with mathematical concepts (as seen in junior school textbooks). This actually confuses many students facing the aptitude tests as some find it too difficult to come out of the mathematical mold, many cannot amalgamate English with Mathematics, and some do not practice at all thinking that they will pass anyway as the questions are similar to those faced by them in their junior school. As a result, multiple students fail to clear the tests as these tests transcend their comfort zone of mathematical questions. The paper tries to explore the issues and challenges pertaining to the problem and concentrates primarily on Central Board or CBSE mathematics textbooks (Std I-XII) and a plethora of aptitude test questions designed by various core and software companies for placement of engineering students of private colleges. It further will attempt to investigate certain issues relating to engineering students' intelligence while appearing for these kinds of aptitude tests and the role of English Language teachers in handling this.

KEYWORDS: Aptitude Test, Mini-Story, Narrative, Intertwine, Text

INTRODUCTION

Aptitude tests constitute a considerable (and formidable) part of the job selection process for B.Tech students. Placement, as it is well known, is as much a process of rejection as it is one of selection. If 10 students get selected, about 100 are rejected. The first criteria for selection for most companies (software companies as well as core companies) are clearing the Aptitude test. If 50 out of 100 students clear the Aptitude test, then they are considered fit for appearing in the Group Discussion (in which another 10 students may be eliminated from the selection process), Technical round (where again another 10 students will be eliminated from selection) and finally the HR (which again will eliminate another set of 10 students from the process). The final 20 thus make it to receiving an offer of traineeship at the prospective company.

Generally if there is 60 min time given, then 70 verbal aptitude questions are asked. In case of numerical ability, for 60 min, 50 questions are asked. Or sometimes in 30 min students have to attempt 40 questions related to verbal ability and 35 questions related to numerical ability in another 30 minutes (This is the more standard practice as in 1 hour time,

both numerical and verbal aptitude gets tested and most companies would not spend 2 hours carrying out aptitude test) And this holds true irrespective of software companies or core companies. Further numerical reasoning ability problems may be broken up into 6 categories (each category roughly having 5 questions which makes it a total of 30 questions)

Picture Reasoning

In this section, a series of pictures are given which may consist of picture series, picture analogy or picture classification.

Statement Reasoning

In this section, sequence questions like seating arrangement or money distribution or height arrangement are given. A set of five questions are based directly on the statements given.

Data Sufficiency

Here a set of two statements are given followed by 5 options which satisfy the answer for the statements. You have to decide which option best suits the answer.

Data Interpretation

This section consists of a direct sequence of 5 questions based on the data which is provided in the form of table charts, bar charts, pie charts or line charts.

Relation Problem

This section consists of questions which are similar to the sets and relations like students with biology, maths, physics and chemistry, maths and biology, only physics, etc., and questions related as such.

Syllogism

This section consists of statement followed by two conclusions. We need to pick out from 5 options which suits the best answer

It would not be out of place to mention that going by the nature of sections from which problems are asked, narrative element plays a huge role in such questions.

Companies are extremely interested in the application-fit of theoretical knowledge. In fact the whole discipline of Engineering is based on applicability, how well theory may be applied to contribute to social, economical and above all technological growth. Thus, while the schools may be at a later stage testing more and more the theoretical base of the student, companies test how well they can apply theoretical knowledge—bringing narrative back into the intellectual domain of the student. Now it is commonly seen that as far as English Language Teaching or ELT in B.Tech or engineering colleges is concerned, right from the very beginning it is considered that the sole responsibility of the English teachers is to make students employable, presentable, well-groomed, smart and conversant in English. English teaching in such scenarios consists of Group Discussion classes, Mock Interview sessions, Stress Interview tips, Personality Development classes and classes set in the Language Laboratory aimed to impart fluency in English conversation to students. Aptitude tests, though they form the foremost barrier in the selection process, receive comparatively less attention from the English teacher due to several reasons.

- If students become well-conversant in English, then automatically their vocabulary and stock of words increases, so teaching English well is inclusive of the preparation for the Aptitude test.
- Practising synonym-antonym, preposition and basic grammar by dictation method or by writing on the board is not seen to be very helpful as students feel bored after sometime. Carrying out verbal ability tests would require question papers (each of at least 4 A4 size pages). If a class is assumed to have 60 students and there are 15 such batches comprising 60 students each then the cost factor to the college or to the teacher turns out to be humungous.
- Verbal ability forms a part of the overall aptitude test which comprises numerical ability (including problem solving skills, logical ability, visual-spatial ability, reasoning etc) as well as the verbal domain. Naturally, B.Tech students would be more interested in the mathematical or technical domain than the verbal. It is very difficult for the English teacher to arouse interest in the verbal domain when the student knows that his vital technical, logical reasoning domain goes unaddressed in the class. This brings us to the important critical juncture of assessing and analysing the numerical aptitude test and studying it not through the domain of mathematics but through the lens of the English language.

Let us begin with a simple example from a **Tech Mahindra Aptitude test questions**:

Athos, Porthos and Aramis are neighbours. Athos has two red herrings more than Aramis who in turn has twice the number of red herrings that Porthos has in his possession. Porthos also owns two cats and a canary, Aramis owns only a canary and Athos has one cat and one canary. How many felines are present in total?

When this question figured in a set of 20 questions handed out to students in a classroom aptitude test, surprising responses were received. Almost 50% students asked what is a herring, 27% students said there is no mention of any animal called feline and 37% students did not know what a canary was! And there were also a minor handful of students who were literature oriented and spent a lot of time thinking where in the famous novel of The Three Musketeers did Athos, Porthos and Aramis possess herrings, canaries and felines in addition to their horses! One cannot help but smile at this apparently funny incident. The question just asks about the number of felines, Porthos has got two cats, Aramis does not have any cat and Athos owns one cat. So there are simply 3 felines in total. But more than 40% students got the answer to the question wrong or left it unattempted. This question is a logical ability question but it is as much a verbal aptitude question at the same time. This intertwining of narrative and mathematics or rather the narrativity of mathematical questions is the chief focus of this paper. Theories, formulas and concepts after all, have their genesis in our day to day life in this world. So, how can they exist in abstract?

The paper posits that one of the reasons why students fare poorly in numerical aptitude tests is surprisingly not related to their numerical or logical ability. The reason behind their poor performance is their poor verbal ability. Students right from their childhood are taught Mathematics through 'narrative'. However, with time, as they grow up, the narrative element seems to disappear from Mathematics. As a case in point, the paper analyses the frequency of narrative questions in CBSE-NCERT Textbooks from Std I-XII. It is seen that junior classes have a high narrative dominance in mathematics but narratives seem to disappear from class XI onwards. Problems become more complex, with greater theoretical underpinnings but narrative element seems to be considerably lacking. This continues well into their B.Tech Syllabus where as in the case of WBUT, Mathematics papers are only there in the first, second and third semesters after which pure

mathematics papers are not there. And even in these semesters, M101, M201 and M301, narrative questions are rarely asked. However Aptitude tests or apti as they are popularly called (by virtue of the fact that these tests want to check how well a student can apply a theory, formula or concept to a practical situation), rely heavily on narrativity. The paper thus explores and finds that as narrative questions are dismissed from higher classes, by the time the students face aptitude tests they are so divorced from narratives that they fumble for answers.

Narrative and Numericals: An Exploration

Let us take an example:

$5-2=?$ The answer, is 3

Now, if it is said, Ram has got five mangoes. Sita comes and borrows two mangoes from him. How many mangoes will be left with Ram?

Or if someone gives the pictorial representation—

Five frogs are sitting. Two frogs leap into the water. How many frogs remain?



Figure 1

The answer remains the same. Pictorial narrative along with text narrative forms the basis of the initial numerical problems, as they help students to understand concepts better. The English language plays a central role in producing narratives, metaphors and images that exercise a powerful pedagogical force over how students think of a given problem. Without language and its application fit, a mathematical theory would belong to an ethereal realm that has no referent outside of its own obtuseness and cleverness, it might be said. Interpreting narrative questions makes a problem-solver go through an analytical procedure of reading that is both mathematical and linguistic, that recognises the text as an inter-subjective phenomenon (Stockwell 6). In addition, the mini-narratives in the questions always belong to progressive states.

Progressive states are stage level predicates (Bach 1981) and denote contingent properties that apply to, or are predicated of, stages of individuals rather than the individuals that they belong to. These stages may be thought of as “temporal slices” of individuals or as their particular manifestations in a space time coordinate system. For example we come to know that Sita borrows two mangoes from Ram. It is a temporal slice. It does not tell us anything about the character of Sita or her relation with Ram or whether she likes mangoes or not. Stage level predicates are inferable from the intuitive objectivising acts made manifest in. The intertwining of narrative with mathematics also helps in transforming it to an illusion-directed process in the sense that the reader who is engrossed in reading the text is supposed to yield to the illusion of witnessing the course of action. From one angle it is creating a fictive world which exists in the mode of representation, thus Lakshman borrows two mangoes from Ram would yield the same result, it would not change the result in any way, or Sally borrows two apples from Harry would not change it either. Narrative contributes to the objective view of the problem. For example we do not know Ram and Sita’s knowledge, feeling, customs or general outlook towards life, which might have been possible to know if there had been a more detailed narrative.

Narrative enhances the understanding of mathematical problem, translating an idea to image (Friedman 1967: 119). Fillmore (1981) has suggested that the very process of drawing perspective inferences from the lexical contents of narrative messages is pragmatically constrained by observation-sequence requirements. Thus presenting mathematical problem through narrative brings in the concept of the observer who is watching the action unfold in front of his or her eyes. In the early 1970s, the American linguist William Labov examined narratives and proposed a general six part structure for them:

An Abstract: Indicating that a story is about to begin

An Orientation: Setting the scene and introducing the main characters

The Complicating Action: The main events

A Resolution: The outcome

An Evaluation: Explaining the point of the story

A Coda: Signalling that the story is over

While Labov had applied his narrative theory to a different domain, his principles have been classically applied to multiple narratives. Thus in the case of mathematical questions, or the mini-narrative mentioned, Ram has got five mangoes is the abstract, Sita comes is the orientation, she borrows two mangoes is the complication, Ram is left with a different number of mangoes from the one he started with is the resolution, and evaluation is left for the reader and solver who has to answer the? That is three mangoes are now left with Ram and this signals the coda or the end of this mini narrative. Thus numerical texts do act as mini narratives whose evaluation and coda are left to the reader in a very post-modern like fashion.

To prove the main premise of the paper, an exploration of CBSE-NCERT textbooks has been carried out to find the frequency of narrativity of questions. Giving detailed narrative questions for all the years is beyond the purview of the seminar presentation, hence we will focus on frequency of narrative questions in chapters from textbooks of Std I, V, VIII, X, XI and XII. This way it will be detailed and at the same time present us a broad canvas rather than a study of gradual weaning away of narrative. The dismissal of narrative will appear more prominently and clearly if there are a few gaps in between. It is seen that when the students start learning, narrative enhances the grasping of mathematical theories. By class V, text narrative is quite dominant in its presence and maintains its hold even till Std X. However, there is a dramatic shifting away from narrative in Std XI and XII. CBSE follows the NCERT textbooks. Because CBSE is an All India Board, textbooks are available in English, Hindi and Urdu Languages. Thus for Class I, the Mathematics textbooks prescribed are Ganit ka Jadu-I for Hindi Language students, Math Magic-I for students studying subjects in the English language and Riyazi ka Jadu-I for students belonging to the Urdu medium. Needless to say, for the purpose of this paper, we have concentrated on the textbooks in English language only. An exploration of narrative intertwining with mathematical theory or concept in terms of the frequency of narrative questions per chapter is provided herewith.

Table 1: NCERT Textbook for Std I

| Chapter | Focus of Chapter | Narrative Elements |
|---------|--------------------------|---|
| 1 | Shapes and sizes | Entirely narrative, resembles an English Reader, introduction to sizes, shapes, lines—characters of grandmother, Arab traveller, camel etc. The character of grandmother introduces one to size, shapes, lines etc |
| 2 | Numbers from 1-9 | Medium of stories |
| 3 | Addition | Text Narratives and pictorial narratives, explanations through pictures and texts |
| 4 | Subtraction | Text and picture narrative |
| 5 | Numbers from 10-20 | Numbers from 10-20, emergence of text narrative, counting numbers without pictures accompanying the text, e.g. “Rahim had 8 flowers. He put three flowers in a vase. How many flowers was he left with?” |
| 6 | Time | Text, picture and narrative |
| 7 | Measurement | Text, picture and narrative |
| 8 | Numbers 20-50 | Text, picture, narrative |
| 9 | Data handling | Narrative eg.-3 names are given Salma, Joseph and Arun and question is asked how many names have four letters? |
| 10 | Introduction to patterns | Picture and text |
| 11 | Numbers | Picture and text |
| 12 | Introduction to money | Picture and text |
| 13 | Story through counting | Detailed intertwining of narrative, mathematics and pictures e.g. A picture is given where three cows and two goats are seen sitting in a field. Two goats leave, three cows are left behind sitting. Students have to develop a story based on this. Here, the story is represented pictorially, at the same time the mathematical concept of subtraction comes in but students have to present it though the medium of written language. Thus narrative is hugely intertwined with numerical ability. |

Table 2: NCERT Textbook for Std V

| Chapter | Focus of Chapter | Narrative Elements |
|---------|-------------------------------------|---|
| 1 | Fish tale | Numerical problems set in the fish market, story and mathematics go side by side |
| 2 | Shapes and angles | Pictures, narrative and mathematics |
| 3 | How many squares? | Pictures, narrative and mathematics |
| 4 | Parts and wholes | Pictures, narrative and mathematics |
| 5 | Does it look the same—shapes | Pictures, narrative and mathematics |
| 6 | Be my multiple, I'll be your factor | Cat and Mouse chase game narratives solved mathematically, eg. Cat climbs up 3 stairs at a time, mouse leaps down four stairs at a time, when will the two come face to face, given the number of stairs or a point of time |
| 7 | Can you see the pattern | Pictures, narrative and mathematics |
| 8 | Mapping the way | Pictures, narrative and mathematics |
| 9 | Boxes and shelves | Pictures, narrative and mathematics |
| 10 | Tenths and hundredths | Pictures, narrative and mathematics |
| 11 | Area and its boundary | Pictures, narrative and mathematics |
| 12 | Smart charts | Pictures, narrative and mathematics |
| 13 | Ways to multiply and divide | Pictures, narrative and mathematics |
| 14 | How bug, how heavy | Pictures, narrative and mathematics |

As students get into senior classes, the pictorial element is the first to be seen lacking; now we also have sets of practice questions to be solved for a better grasp of the subject. Therefore we also focus on the number of practice questions and the total number of narrative questions out of them.

Table 3: NCERT Textbook for Std VIII

| Chapter | Focus of Chapter | Number of Practice Questions | Narrative Questions |
|---------|---|------------------------------|---------------------|
| 1 | Rational Numbers | 7 | 0 |
| 2 | Linear equations in one variable | 10 | 10 |
| 3 | Understanding quadrilaterals | 12 | 0 |
| 4 | Practical geometry | 10 | 0 |
| 5 | Data handling | 15 | 11 |
| 6 | Squares and square roots | 22 | 6 |
| 7 | Cubes and cube roots | 7 | 2 |
| 8 | Comparing quantities | 12 | 7 |
| 9 | Algebraic expressions and identities | 20 | 0 |
| 10 | Visualising solid shapes | 10 | 1 |
| 11 | Mensuration | 18 | 5 |
| 12 | Exponents and powers | 11 | 0 |
| 13 | Direct and inverse proportions | 11 | 11 |
| 14 | Factorisation | 27 | 0 |
| 15 | Introduction to graphs | 12 | 7 |
| 16 | Playing with numbers—divisibility by 2, 3, 7, 9 etc | 15 | 0 |

As we see narrative was predominant in Std I when a student was learning, by the time a student is in class V, the pictorial narrative is much reduced and text narrative still holds its sway, by the time the student is in Std VIII the text narrative is slowly fading out and giving way to complex mathematical problems. An insight now into textbooks of X, XI and XII will reveal how narrative almost separates itself from mathematics leaving the student in the realm of complex arithmetic.

Table 4: NCERT Textbook for Std X

| Chapter | Focus of Chapter | Number of Practice Questions | Narrative Questions |
|---------|---|------------------------------|---------------------|
| 1 | Real numbers | 8 | 0 |
| 2 | Polynomials | 10 | 0 |
| 3 | Pair of linear equations in two variables | 8 | 3 |
| 4 | Quadratic equations | 17 | 5 |
| 5 | Arithmetic progressions | 25 | 4 |
| 6 | Triangles | 27 | 3 |
| 7 | Coordinate geometry | 15 | 3 |
| 8 | Introduction to trigonometry | 20 | 0 |
| 9 | Some applications of trigonometry | 16 | 11 |
| 10 | Circles | 17 | 0 |
| 11 | Constructions | 7 | 0 |
| 12 | Areas related to circles | 16 | 0 |
| 13 | Surface areas and volumes | 9 | 2 |
| 14 | Statistics | 21 | 13 |
| 15 | Probability | 30 | 15 |

Table 5: NCERT Textbook for Std XI

| Chapter | Focus of Chapter | Number of Practice Questions | Narrative Questions |
|---------|---|------------------------------|---------------------|
| 1 | Sets | 16 | 4 |
| 2 | Relations and functions | 12 | 0 |
| 3 | Trigonometric functions | 10 | 0 |
| 4 | Principle of Mathematical Induction | 24 | 0 |
| 5 | Complex numbers and quadratic equations | 20 | 0 |
| 6 | Linear inequalities | 14 | 2 |
| 7 | Permutations and combinations | 11 | 5 |
| 8 | Binomial theorem | 10 | 0 |
| 9 | Sequences and series | 32 | 6 |
| 10 | Straight lines | 24 | 0 |
| 11 | Conic sections | 8 | 1 |
| 12 | Intro to three dimensional geometry | 6 | 0 |
| 13 | Limits and derivatives | 30 | 0 |
| 14 | Mathematical reasoning | 7 | 5 |
| 15 | Statistics | 7 | 2 |
| 16 | Probability | 10 | 7 |

Table 6: NCERT Textbook for Std XII

| Chapter | Focus of Chapter | Number of Practice Questions | Narrative Questions |
|---------|----------------------------------|------------------------------|---------------------|
| 1 | Relations and functions | 20 | 0 |
| 2 | Inverse trigonometric functions | 20 | 0 |
| 3 | Matrices | 27 | 0 |
| 4 | Determinants | 20 | 0 |
| 5 | Continuity and differentiability | 40 | 0 |
| 6 | Application of derivatives | 34 | 0 |
| 7 | Integrals | 44 | 0 |
| 8 | Application of integrals | 19 | 0 |
| 9 | Differential equations | 18 | 0 |
| 10 | Vector algebra | 19 | 1 |
| 11 | Three dimensional geometry | 23 | 0 |
| 12 | Linear programming | 10 | 8 |
| 13 | Probability | 19 | 8 |

We find therefore a real dearth of narrative questions in the higher classes.

If we see the following table we will be able to understand percentagewise decrease of 'narrative elements' in numerical questions starting from Std I to Std XII.

Table 7

| Standard | Numerical Chapters | Narrative Elements | Percentage |
|----------|--------------------|--------------------|------------|
| I | 13 | 13 | 100% |
| V | 14 | 12 | 85.71% |
| VIII | 16 | 9 | 56.25% |
| X | 15 | 9 | 60% |
| XI | 16 | 8 | 50% |
| XII | 13 | 3 | 23% |

This dismissal of narrative is carried forward even in a student's B.Tech days. For example in the year 2012, there were no narrative question in M 101 for the 1st year students, no narrative questions in M 201 for the second year students and just two narrative questions in M 301 for the third year students. Interestingly, if we analyse the narrative questions set

in the same year by the Multinational conglomerate or corporate giants for campus recruitments or placements at well known private colleges, a very interesting figure emerges.

Table 8

| Company Name | Numerical Ability Questions | Narrative Questions | Percentage of Narrative Questions |
|---------------|-----------------------------|---------------------|-----------------------------------|
| CTS | 25 | 7 | 28% |
| Accenture | 20 | 5 | 25 % |
| Infosys | 30 | 11 | 36% |
| TCS | 40 | 13 | 32.5% |
| Tech Mahindra | 40 | 9 | 22.5% |
| Wipro | 40 | 9 | 22.5% |
| IBM | 25 | 12 | 48% |

These questions have been collected from various well known private colleges 'training & placement cell, from students' feedback, from company's website, various training institutes and HR domain of such companies through personal network. We can see through analysis of these aptitude questions that around 30% of numerical ability questions are narrative in nature and they test the students' reading comprehension skills as well; and all this is in addition to the verbal questions. When a survey was carried out by the researchers, to test the cognitive minds of the students, on a group of 60 students as to why they do not concentrate on aptitude tests, 40% replied that they do visit online aptitude websites but when they see such "childish" questions, they feel they would be able to attempt them in the exam very easily. The problem is that narrativity is intertwined with mathematics in the minds of students as a junior school experience. As a result many leave out aptitude questions thinking they have solved numerous such problems in the past and when finally during campus drive they get the question paper in their hand, lack of experience makes them total failures. It might be said that on an average around 30% questions in numerical ability tests have narrative orientation. This is in addition to the verbal ability tests. Thus one can understand that if 30% numerical questions are narrative in nature, then English teachers do have a very great role to play in helping students to understand and comprehend questions in a quicker manner.

The Role of the English Teacher

Here the role of the English teacher becomes paramount—the English teacher can for a change start with simple numerals from Aptitude tests and show the mathematical reliance on verbal cues especially in the study of what is extra-logical in mathematical language feature or features which are peculiar to style or expressiveness as distinct from cognitive meaning. (Ullman 41). For example, the English teacher can teach students to look for key words.

Thus in the **IBM** question: There are 250 people. 100 read newspaper.50 read both newspaper and magazine. Find the number of people reading only magazine.

Here the question demands only the number of students who read "only" magazine. In a twist of verbal ability the question was also once asked to find out the number of students reading magazines, which includes of course the students who read both newspapers and magazines and those who read only magazines. Many students, unable to understand the nuance of the plural "s" got the answer wrong. The problem is they did not get this numerical ability question wrong because of a lack of numerical skills but because they could not understand the word "magazines" and the missing word 'only'. Solving a problem thus also elevates the mathematical process to that of literary text analysis which starts from a basic assumption that the primary interpretive procedures used in the reading of the text are linguistic procedures

(Carter 4); Students enter into a process de-coding the meaning embodied in a text by focusing on linguistic features (Timulin 129), examining in detail the linguistic organisation (Short 53).

The teacher can also teach students to reject unnecessary information. For example in another **Wipro** question:

Ferrari S.P.A is an Italian sports car manufacturer based in Maranello, Italy. Founded by Enzo Ferrari in 1928 as Scuderia Ferrari, the company sponsored drivers and manufactured race cars before moving into production of street-legal vehicles in 1947 as Ferrari S.P.A. Throughout its history, the company has been noted for its continued participation in racing, especially in Formula One where it has employed great success. Rohit once bought a Ferrari. It could go 4 times as fast as Mohan's old Mercedes. If the speed of Mohan's Mercedes is 35 km/hr and the distance travelled by the Ferrari is 490 km, find the total time taken for Rohit to drive that distance.

- a) 20.72 b) 5.18 c) 238.25 d) 6.18

Now, it can be clearly seen that the history of Ferrari is a digression (the history of Lamborghini or Toyota would not have changed the basic precepts and if the car had not been bought by Rohit but by Lakshmi, again the basic precept would not have changed), the students' fast reading ability, drawing inferences and rejecting extraneous word elements becomes as much a part of his success in clearing the aptitude test as his reading comprehension ability. One can only imagine what a waste of time it will be for a student who takes a lot of time to read a passage.

Further, these questions are always placed in the middle of other numericals very strategically, for example we have the first narrative numerical question after 3 general numericals and again the next narrative numerical crops up after another set of 5 numericals. These also break the pace at which the student is solving numericals. So narrative also achieves the concealed purpose as an instrument of pressure. For example in the Infosys logical reasoning question, how much sand is present in a $5\text{m} \times 3\text{m} \times 2\text{m}$ hole, students who calculate get their answer wrong, because if it is a hole, then no amount of sand may be present there. Similarly in the reasoning question if an aeroplane crashes 0.5 km from Pakistan border and 0.7 km from Indian border but all the people travelling in the plane were Indians then at what exact location the survivors should be buried. The question is not one of coordinate geometry or trigonometry or even mapping to decide the location for burial, survivors are not buried.

The teacher can enable students to become clearer in their reading strategies and thus solve numerical problems with élan. English teachers can enable students to decide which objectivising acts are inferable from the kind of linguistic structure displayed. Reading comprehension puts emphasis on knowledge of word meaning, appropriate meaning for a word or a phrase in the light of contextual clues, selecting main thought of a passage, ability to draw inferences and recognise the literary device. (Awal and Rout 2013) The methods of learning English as second language are very complex. Reading process is extremely complex and demands the knowledge of vocabulary, comprehension, understanding and interpretation.

CONCLUSIONS

We can say that our culture is entirely different from western culture. The cultural diversity contributes to the complexity and adds to poor reading comprehension. English aptitude tests consist of vocabulary, comprehension, sentence framing, antonyms, synonyms, inserting appropriate prepositions, grammar skills. Comprehension consists of reading a passage and answering questions. However, maths aptitude tests also in order to create excess pressure on the students rely

on nuances of the language. In English medium schools, students start reading English from the very beginning and all the subjects are studied through English medium whereas in vernacular medium schools, English is taught only in the English period and all the other subjects are taught in the vernacular medium. (Awal and Rout 2013). This creates tremendous problems for students coming from Bihar Board or West Bengal Board who do not have access to English in the same way as students belonging to English medium schools do. Thus, the English teachers in their classroom may amalgamate paradigmatic knowledge based on logico-scientific (Bruner 1985) structure along with narrative, which involves a story or pattern of human interaction. This will enhance the students' respect for the language, it will enable the students to see the English teacher as also a part of their creative psyche—the English teacher who is a number cruncher along with being an expert in his or her field. Bringing narrative back into simple mathematics in the language class will contribute to the numerical locus accommodating the narrating consciousness and linguistic locus accommodating the numerical consciousness (Dias 2006).

The paper therefore attempts to address the problem of narrativity in numerical Aptitude tests and examines how the language English emerges as a key competence area not only in the verbal tests but also in the numerical tests. The paper relates further to issues relating to engineering students' intelligence while appearing for these kinds of aptitude tests and the role of English Language teachers in handling this.

REFERENCES

1. Argamon, S. Koppel, M. Fine and Shimoni S.R. 2003. "Gender, Genre and Writing Style in Formal Written Texts." *Text* 23 (3): 321-346.
2. Awal, Abdul and Sarat K. Rout. 2013. Reading Ability of Secondary School Students of Different School Interventions. *Wizcraft Journal of Language and Literature* 2(3): 137-142.
3. Bach, Emmon. 1981. On Time, Tense and Aspect: An Essay in English Metaphysics. In Peter Cole ed. *Radical Pragmatics*. New York: Academic Press
4. Bruner, Jerome. 1985. "Narrative and Paradigmatic Modes of Thought" in Elliot Eisner ed. *Learning and Teaching the Ways of Knowing* p. 97-115. New York: The National Society for the Study of Education.
5. Carter, Ronald. 1982. *Language and Literature: An Introductory Reader in Stylistics*. London: Allen and Unwin.
6. Dias, Rui Linhares. 2006. *How to Show Things with Words*. Berlin: Mouton de Gruyter.
7. Fillmore, Charles. 1981. Pragmatics and the description of Discourse. In Peter Cole ed. *Radical Pragmatics*. New York: Academic Press 143-166.
8. Friedman, Norman. 1967. Point of View in Fiction. In Philip Stevick ed. *Form and Meaning in Fiction*; Athens: The University of Georgia Press 134-166.
9. Labov, William. 1972. *Sociolinguistic Patterns*. Philadelphia. University of Pennsylvania Press.
10. Labov, William. 1975. *What is a Linguistic Fact?* Lisse, Peter de Ridder Press.
11. Murry, S.M. 1922. *The Problem of Style*. London: Oxford University Press.
12. Read, Herbert. 1998. *English Prose Style*. New Delhi: Kalyani Publishers.

13. Saporta, Sol ed. 1978. "The Application of Linguistics to the Study of Poetic Language". *Style in Language*. Cambridge: Massachusetts: The MIT Press.
14. Short, M. 1995. *20th Century Fiction from Text to Context*. London: Routledge.
15. Stockwell, Peter. 2002. *Cognitive Stylistics*. London: Routledge.
16. Timucin, Metin. 2010. "Exploring the Language of Poems: A Stylistic Study". *Novitas Royal*. 4(2): 129-140.
17. Ullman, Stephen. 1973. *Meaning and Style*. Oxford: Basil Blackwell.