Specialization restricts the outlook of the student making him feel at home only in his chosen field. We have never had a tradition of reading for general knowledge in this country. Reading and studying for examinations makes sense but reading for culture and to understand the world around us is hard to come by. I feel that science students are particularly guilty of this "sin" of omission. In some institutes of technology science students are required to follow courses in the humanities and social sciences. This is important mainly because a scientist who knows little beyond his laboratory is a danger to society. By seeking to be innocent of social involvement, he is a ready prey to all manner of pressures — especially political pressure.

A course in General Studies taught in a lively and exciting manner can reveal to all the students that there are more things than are dreamt of in their philosophy.

In this matter, the attitude of the teacher is all important. A topic handled with indifference will only communicate indifference to the young minds. What is worse, the all important aim of helping them to discover knowledge for themselves will be lost. We all want our young people to be well-informed and to be able to tap knowledge confidently. We have to guide them to read critically and not to fill them with facts all the time. They need to be taught the proper use of standard reference books, dictionaries and encyclopaedias. This is especially important in Form Six as they may not have been introduced to these works in their secondary school years, and they will need to consult these at university.

Guidance in reading habit is also essential. The love for ideas, concepts and for knowledge itself is best inculcated through the development of the reading habit among our pupils. The names of Mark Twain and Nathaniel Hawthorne may be just famous names to our pupils, but let the GP teacher take time off to read to the class the short story: "The Stolen White Elephant" or "Rapaccini's Daughter". Then those two names become more meaningful and interest in the authors may be aroused. A GP teacher should infuse his students with an abiding interest in current affairs or developments in science or any other topics.

A major aim of General Paper studies is inculcating the habit of straight thinking — an intellectual discipline that is the very foundation of a clear and sharp mind.

Straight thinking does not depend entirely upon logic but it does demand that we take time to think. It is not always the truth of basic ideas that counts towards accuracy — we must take into account the way they are put together. Very often two statements placed side by side and quite unrelated to one another can give a meaning quite unintended, and unexpected. For example when Mark Twain arrived in England, the newspaper headlined him thus:

1st line: Mark Twain arrives
2nd line: Ascot Cup Stolen

Fair criticism considers the event on which it is to pass judgement in the light of the following factors:

What was said or done?
What did the person mean to say or do?
What was his reason for saying or doing it?
What is the effect of what he said or did?
What is the tone of the whole speech?

It is from the tone that we infer the true intent of the writer or speaker.

An essential part of straight thinking is the avoidance of misunderstanding by defining terms that would otherwise cause confusion. Definition must bring out a distinguishing attribute of the notion we are defining and it must be clearer than the notion we are defining. The discipline of understanding clearly the words we use in our own thinking and to convey to our bearers what precisely it is that we are using these words to say is worth cultivating.

Maturity of thought demands the ability to criticise intelligently — to see a thing clearly and truly, distinguishing the good from the bad in it and seeing the whole of it fairly in its proper setting. Maturity of thought will demand that criticism be done objectively. Various sources like political speeches, advertisements, slogans, newspaper editorials and letters to the editor will be of help to our young people to detect illogical reasoning, half-truths, distortions and biased viewpoints.

There are two ways of making a decision — we may make observations, weigh the possibilities and decide what to do or say. Or we may decide without conscious thinking. The former is the rational way and we should strive to inculcate that way of reasoning in GP classes.

(Editor's note: The following is a condensed version of the talk given by Mr John Doraisamy at the General Paper Seminar)
Using logic will not give us the truth in answer to our questions but it will help us to reach the truth.

Facts are the material of thinking and there are four principal sources: our direct observation, our memories, reports provided by other persons and self-evident truths. To arrive at conclusions, one has to weigh the facts rather than count them. Perhaps the most difficult aspect of dealing with facts is what interpretation one can put on them. In this connexion I commend to all GP teachers George Orwell's *Politics and the English Language*. It contains a wealth of detailed observations on how words and facts can be given such a twisted look that vices can be depicted as virtues. It would be a fascinating GP exercise to collect words and phrases that say one thing and mean quite another thing.

Then we come to the handling of data or masses of information. Data may be primary or secondary. But in reports or conclusions the fruits of observation rate high marks. He is a good teacher of GP who insists that the pupils apply, whenever possible, observation and experimentation to check the findings of others. We should never rate highly an exercise or essay that merely echoes the opinions of others.

Intellectual honesty is a quality we must demand in all the writing and speaking that is done for the General Paper. Facts must be scrupulously weighed and properly evaluated and the student must sincerely attempt to present something that has a judicial quality. A distinct line must be drawn between what has been found to be factual, what is his opinion and what he sets up as a hypothesis.

A relatively new feature of GP studies is the use of statistical data. Comprehension denoting only verbal comprehension is out-moded. We also have to be proficient in the comprehension of statistical data, charts, index numbers and pictorial material like cartoons in newspapers. As far as the GP teacher is concerned, it seems to me that our attitude with respect to numbers should be as follows:

Statistics is one way of bringing big numbers down to a size where they can be grasped with ease.

If we were to scrutinize the statistical skills demanded by the GP exercises, we find that they demand simple judgements of magnitude, comparisons between this and that or between similar things at different times. The principal comparisons based upon statistics are: the same thing at different times, something in relation to a larger thing of which it may be a fact, and one thing in its relation to something else which is supposed to influence it. A set of statistical data by itself does not unfold the tale. Additional verbal statements of fact provided make it more meaningful.

Care is needed in determining the existence and extent of relationship between facts reported statistically. Cause and effect must be sought from statistical data.

A good and useful principle to practise in GP written work, especially in the evaluation and criticism of passages, is to insist that all allegations and conclusions must be supported by reasons.

In GP studies the teacher should dedicate himself to gladly learning and gladly teaching. The spirit of inquiry must be kept glowing. Two useful childhood habits ought to be retained — curiosity and observation. Those who succeed in maintaining a lively spirit of inquiry find it rewarding as acquiring knowledge through research increases their understanding and they find joy in the search itself.