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## THE WORLD OF WORK

Work To some is life itself.

Others would describe it as a slow death.

To the more fortunate, work is synonymous with pleasure—the thing that one enjoys doing most.

To others, it is torment and drudgery, a requisite of survival.

The need to work is, nevertheless, natural to the human condition.

—*The Rotarian Magazine*,  
May 1976.



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### *The Role of Guidance in Elective Preference*

By  
**Shri Surendra Mohan Pany, B. A., (HONS.) & B. Ed., M. Ed.**  
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**W**HEN a pilgrim is starting on a journey, he should find out a competent guide either in the form of a book-let or a person that may help him to successfully complete his cherished desire. Though, he has a background knowledge about the place, the contribution of the guide is indispensable. This simple experience of our ordinary life is quite applicable in the field of education. When a young delicate student of thirteen years, with a primary background, enters into the Secondary Education, he is nothing more than a pilgrim in a new place. He is a helpless fish who is out of the secured waters of the primary school and is trying to acclimatize himself in the troubled waters of secondary education. He is ignorant of his own abilities, interests and aptitudes etc.

Here, this student of class nine is exposed to a group of subjects, generally known as elective group, or elective subjects or optional subjects. Here he experiences the approach of "Secondary" subject in the field of

curriculum. He is asked to exercise his elective preference. Does not he experience a problem of choice at this critical stage? If so is he competent enough to solve or resolve this problem alone through his own self autonomy? Certainly not, rather this problem of choice plants the seeds of a series of crises for the future. No doubt, the student exercises his choice to offer some group because he has to complete the present course. It is generally marked many young people choose only the school subjects that seem easy or convenient for them. But before choosing a particular subject, is it not expected of the student to know the answers of the questions like:-

Why should he offer this subject and not that? '

What is the future implication of this subject?

What is its scope and limitation?

Is he able to manage this subject?

Is it interesting for him? and so on.

"Although many people can and are willing to help the student, the responsibility for Programme planning is always his. He will be the final judge in deciding what subjects best fit to his general plan."\*

But now the question is, how can he be made his "Own Judge"? Like a pilgrim, he wants a guide to help him to know himself, his environment and to solve his own problems to achieve the goal for a successful life. He needs the analysis of the future implication of different subjects. In such a crucial point a person, as widely known as guidance worker can help him to solve his problems.

Super justifies to define guidance in his "Psychology of careers" as a "process to help the individual child to grow up to his or her fullest potentiality so as to achieve proper adjustment educationally, vocationally, and socially".

Today, the concept of "guidance" is wide spread and has the following functions in general:-

- 1) To understand the individual pupil and help him to assess his abilities, interests, and needs;
- (2) To help him to become acquainted with resources and facilities in the school and community,
- (3) To help him to make the best possible use of opportunities;
- (4) To help him evaluate his experiences, classify his objections, and make plans for his future.

Coming to the special functions of Educational guidance it is worth not-

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\* John H. Brochard " School Subjects and Jobs "—(Guidance Series Booklet.)

(1) Encyclopaedia of Vocational Guidance Page 306.

(2) Encyclopaedia of Americana, Vol. 20 P. 70.

ing that the worker has to perform, mainly four important functions which are mutually and reciprocally dependent.

(1) He helps the pupil to make educational plans consistent with his abilities, interest, and goals to select appropriate curriculum and courses.

(2) He helps the pupils to explore educational possibilities beyond his present school level;

(3) He helps the pupil to succeed in his educational programme.

(4) He has responsibility jointly with other members of the faculty for suggesting modifications in the curriculum and in the administrative arrangements of the school to meet better the needs of the students." 1

In the light of the above discussion the author can emphatically state that guidance plays a very significant role for the choice of electives in the secondary schools, if the author is permitted to use loosely the word "vocational subject" in the place of "elective subject." Because the "Elective Courses" means a term that is generally used to distinguish those subjects of study particularly in the college and universities which the student is permitted to select for himself in accordance with his particular interest and abilities, as opposed to those specifically required for a certificate of graduation or degree," (\*)\*\*\* And here this choice in the class room determines his future vocation where rests his cherished desire of the journey of the life.

As such, the guidance worker must, therefore take into consideration the nature of the educational and vocational guidance and the techniques employed in carrying out effectively the programme. If vocation makes life richer and fuller then the

# Recreation for Teachers

By

**Shri Pritam Singh Brar,**

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**P**ERHAPS in no other sphere of human activity is recreation so badly needed as in teaching. Teaching is a profession which makes great emotional demands. Working with small children and adolescents creates anxieties, tensions and emotional disturbances even in most stable and matured personalities. These tensions and anxieties will reduce the teachers to physical and emotional wrecks, if they are not given sufficient facilities for recreation. Recreation for teachers is important if another aspect of teaching is examined. Teaching is a process which can be refreshing and exhilarating as well as dull and monotonous. In our contrary, most teachers find it dull and boring. And reasons for this are not far to seek. When the same lesson is repeated year after

year, it tends to become dull and boring for the teacher. Moreover, class room work, year in and year out exhausts teachers physically and emotionally. Most teachers start their careers with excellent ideas but soon lose early enthusiasm and drive. After a few years, they are content to carry on their work in a routine way. This results in their teaching becoming lifeless & mechanical. The only way to sustain the interest and enthusiasm of teachers is to help them break the monotony and boredom of the daily routine. This can only be done by providing them with more and more facilities for recreation.

### **Professional Preoccupations:**

Teaching profession is becoming complex day by day, as the goals of education are constantly being

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need for the right kind of vocation is indispensable. First the right kind of knowledge regarding the nature of work, the conditions of the output, the earning level, the social environment and such other factors are taken into consideration; secondly one must be fully aware of the occupational trends and his own potentialities and interests about taking up the jobs. After this the pupil comes to a position to elect his optional subjects as proper selection is necessary to provide the basis for forming the good judgment, a citizen must make later in life.

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enlarged. In the past teaching was synonymous with imparting knowledge in a number of fields and training certain skills. But this concept of teaching is valid no more now. Teaching now embraces all aspects of the child's personality—mental, moral, physical and spiritual. And this makes teacher's job difficult and exacting. Some people are under the false impression that teachers have a lot of leisure in their lives. The fact is that teachers are over-worked people with little or no leisure except during the summer vacation. Instead of getting more leisure, which the nature of their work demands, they have greater professional preoccupations. A teacher's working day is not over with the last bell of the school. He has to carry on with his work late into the night. After the school hours he has to supervise games and help and guide students in co-curricular activities. Then the difficult task of correcting the written work of students awaits him. After this he has to prepare for the next day's class lessons. This routine makes heavy demands on teacher's time, energy and resourcefulness. All this will fatigue the teachers physically and mentally, unless they have opportunities "to recreate that which is damaged" under the strain of school life.

#### **Present Position :**

Recreation is, no doubt, important for teachers, but what recreational opportunities are available to them? Do all teachers realize sufficiently the importance of recreation in their lives? How many teachers avail themselves of the recreational opportunities that are available to them? Recreation involves expenditure, do the financial resources of teachers allow any surplus for recreation. The answers to all these questions will reveal that facilities for

recreation are meagre in the country and that teachers can not take advantage of even the existing facilities. In recent years, there has been much talk of increasing teacher's salaries, giving them an honoured place in society and improving the professional competence, but no attention has been given to this very important aspect of their service conditions. One can understand the indifference of State Departments of Education in the matter, because the Govts. are always chary of spending even a few chips on the teacher's welfare. But what one cannot understand is why the teacher's associations are not doing anything in this direction. There is a plethora of teacher's bodies in the country—Unions, Associations, Federations, Confederations and the like. Some bodies are quite rich and collect and spend thousands of rupees on their activities. But one is yet to hear of a Union planning to raise anything like a Teacher's Home at some hill station.

#### **Forms of Recreation :**

Having discussed the importance of recreation, we come to some important forms of recreation from which teachers can profit.

(1) *Reading*: Reading a book of one's choice is one of the highest types of recreation. Books are not only a source of knowledge but they contribute to make our lives richer fuller and happier. Reading is especially important for teachers who have to keep in touch with the latest in the world of education. But unfortunately most teachers are not avid readers. Moreover, their financial resources do not admit of any expenditure on books. Here the school libraries can step in to provide good books to teachers.

(2) *Research*: Closely allied to reading is genuine interest in research. Genuine interest in research helps to mitigate the boredom and monotony that attends all teaching work. But unfortunately few teachers in schools care to undertake research projects. One reason for this may be that they do not get inspiration, encouragement and guidance from their Head-masters. Given proper facilities and guidance, teachers can contribute their mite in the research field.

(3) *Travelling*: Travelling is one of the most profitable forms of recreation. Men of learning and culture have always yearned to travel far and wide. A visit to a place of historical and geographical interest is at once a source of joy and information. Travelling also brings people of different parts closer to one another and thus helps to bring about emotional integration. But like many other forms of recreation, travelling is also expensive. Here the Railways can be helpful. The Railways give certain concessions to students and tourists. Similar concessions should also be extended to teachers.

(4) *Holiday Homes* :- Holidays Homes are important means of bringing teachers together and thus breaking their isolation. There is a net work of such Holiday Homes in Europe. But in our country there are no such homes where the teachers can spend a few days away from the cares and worries of their humdrum routine existence. They do not get much leisure during the session but annual vacation is the time which gives them leisure for such visits. But, in the absence of Holiday Homes, a vast majority of teachers cannot even think of spending a few days at some hill station.

(5) *Teachers Clubs*: Employees of almost all other Deptts. have clubs where they meet in the evening, but teachers have no such clubs even at Distt. Headquarters. Some might say that teachers need no such clubs, as they spend their evenings with students supervising their games and other co-curricular activities. This is wrong. Teachers' participation in games and other school activities is, no doubt, good for them, but to interpret it as recreation will be wrong. Recreation ceases to be recreation once it becomes a part of work superimposed from without. Supervision of games is not, therefore, recreation, but a part of teachers' manifold duties. They need a place where they can sit together in a relaxed atmosphere, exchange views on matters of common interest, play indoor and outdoor games.

(6) *Seminars and Camps*: Seminars and camps go a long way in breaking the monotony and isolation from which the teacher community suffers. University Grants Commission arranges seminars for college and university teachers. But there is no such agency for school teachers. Seminars organized by the Extension Services Department at Jullundur and Patiala do not serve the purpose of recreation. What is needed is to convert seminars-cum-camps. During the summer season, these camps may preferably be held at some hill station. One such Seminar-cum-camp for Headmasters was held at Tara-devi. It was planned to hold each year a number of such seminar-cum-camps for teachers also. But the idea remained on the paper only.

In the end, it may be once again emphasised that recreation is of great value and importance for teachers. The chief aim of recreation is to transform teachers into a happy, healthy

# Are Examination Results an Index to Teacher Efficiency?

By

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It is well recognized that the results of a liberal education, which is what is offered in most of our Arts Colleges, are felt only in the long run. Nevertheless, in a large and complex education system like ours, a quantitative approach is unavoidable to ensure minimum standards of teacher and pupil performance. An assessment of the work done by the teachers and pupils is sought to be made at the end of the course through a programme of written, and occasionally oral tests.

A recent development in the field has been to take the performance of the pupils at a particular examination

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and joyous community. The health and happiness of teachers is the foundation upon which rests the happiness of the children. Tired, listless and inert teachers cannot be expected to bring joy, enthusiasm and interest in the lives of children. Teachers will not fritter away their energies in petty intrigues, jealousies and mutual recriminations if they have sufficient facilities for recreation. Teachers' participation in recreational activities will also improve the tone of atmosphere which in most schools is sordid and unacademic at present.

as an index to the efficiency of the teachers who taught them. Thus the sincerity and efficiency of a teacher are sought to be measured by the number of successful pupils taught by him. As a logical corollary, he is sought to be penalized if the passes fall below a certain number. This principle has already been put into practice to a certain extent by the Education authorities in Andhra Pradesh. In the months of July and August 1976, many school and college teachers were transferred to other places ostensibly for neglecting their pedagogic duties which culminated in the poor show of the students at the public examinations. The obvious aim of the exercise was to improve standards of teaching in schools and colleges.

This large-scale transfer of teachers raises certain questions which deserve dispassionate examination. The most important of these are: 1. Can standards of teaching be automatically improved by transfer of teachers? 2. Can results be taken as an index to the efficiency of a teacher? and 3. What are the positive steps to be taken to improve the performance of teachers and pupils, and of standards in general in schools?



An answer to the first question can be found by comparing the situation in Government and Private Colleges. Only teachers in Government Colleges are liable for transfers. But it is commonly observed that the students of Private Colleges fare better in the examinations. It would of course be erroneous to suggest that this is solely because the teachers in these colleges remain unchanged for decades. At the same time, it also suggests that the continuance of a teacher in his post indefinitely does not militate against his efficiency. The efficient teacher continues to be efficient though he may not be transferred, while the inefficient one cannot be improved by being transferred. It may even be argued that if kept in one place for some time, the good teacher develops a rapport with the community and may render good service to the institution. It is however, obvious that mere transfer of teachers does not improve student performance in examinations.

It is necessary for us to consider the steps to be taken to improve standards in our colleges and schools. The first of these is to reduce the strength of classes in schools and colleges. The classes in High Schools have as many as 60 pupils each, while in colleges, Intermediate classes have anywhere between eighty and a hundred pupils. This is a most unsatisfactory state of affairs. No worthwhile teaching can take place in such overcrowded classes. Devotion of personal attention to individual students in such overcrowded classes is, to say the least, difficult. The strength of the classes in both schools and colleges must be reduced to at least half the existing levels to make effective teaching possible.

Regular testing is one of the essentials for maintenance and improvement of standards. This becomes easier with smaller classes. But this requires increased personnel and financial resources. It may also call for a lessening of the work load of the teacher so as to allow him time for setting and evaluating the tests. Without these, it is futile to blame either students or teachers for poor results.

One of the factors behind the poor results could be the pupil's apathy to the courses offered in the colleges, partly because of their questionable relevance to the careers available in life. Most of the best students go to the professional colleges, and only those who fail to secure a seat there come to the Arts Colleges. Since most of these have little hope or chance of landing decent jobs after finishing their studies, they are apathetic to their studies. It is evidently untenable to consider the teachers inefficient if such unmotivated and unwilling students put up a poor show at the examinations. The remedy lies in injecting more vocational content into these courses, so that they prepare the pupils for some vocation in life.

Incidentally, it is worthwhile to point out here the most striking factor behind the disappointing performance of candidates at the last X Class and Intermediate Examinations. As those at the top have said repeatedly, malpractices in examinations that were previously the rule of the day, were effectively put down at the examinations held in 1975 and 1976. This was indeed a very welcome step. But what really took the students by surprise was the rather abrupt end to the moderation system. The Students were not warned betimes of the end of the old "happy"

times, and expected the same old liberal dose of moderation. The end of the moderation system was decided upon without consultation with or information to the teaching community, much less to the students. The result was quite predictable; a sharp drop in the number of passes.

It is quite possible that if moderation had not been given up, the passes this year would have been no lower than in previous years. As such, the drop in the number of passes is only apparent and not real. The performance of the pupils was the same, but the number of passes was lower, because of the discontinuation of moderation. I do not wish to be taken as pleading for the restoration of moderation. Dispensing with moderation is, in my view, a very necessary measure, and should have been taken long ago. The right thing would be to make it a permanent feature, and let the students understand this. This would encourage them to work harder right from the start, and thus result in a general improvement of their performance of the examinations. Mere transfer of teachers from one institution to another is not going to provide a solution to the problem of poor standards and poor results.

The next question that requires examination is whether results are a reliable guide to the efficiency of a teacher. The inclination to make this assumption seems to be directed at punishing the teacher after the harm is done rather than at preventing it, and improving standards of teaching. If the poor results at the examination are solely the result of bad teaching, this bad teaching itself is the result of laxity on the part of the inspecting machinery of the Education Department, whose job it is to ensure the maintenance of good

standards in teaching. Timely action on the part of the inspecting officers would have gone a long way in preventing such an apparent debacle as happened in the summer of 1976.

My contention is that the teacher is not the only factor behind the students' performance in the examination. What of the mental calibre of the pupil and his willingness to apply himself to his task? The teacher has no control over these two vital factors. Both in schools and colleges, the teacher has little say in the selection of those he has to teach. Even among these, the better students go to the prestigious private colleges which collect much higher fees than Government colleges. Not surprisingly, these private colleges produce better results. We are thus driven to the conclusion that the quality of the students plays a very vital part in their performance at the examinations.

I have already pointed out earlier that mere transfer of teachers is not going to solve the problem of poor standards. The inefficient teacher is not going to be improved by being transferred. The best thing would be not to recruit such people at all, or if already recruited, to give them opportunities for improving themselves. No useful purpose is served by branding the whole teaching community as inefficient or indifferent to their social responsibilities. What is needed is a more constructive approach to the problems of education, and not recrimination. It is noteworthy that by and large, the teaching community has been remarkably supine in the face of the wholesale condemnation of teachers as a body in the context of the poor performance of students.

At this point, I should like to suggest some positive steps to improve

teaching standards in our schools and colleges. The most important of these is to reduce the class strength to fifty in colleges and thirty in High Schools. Selection of good material will go a long way to improve the results. The availability of text books at the beginning of the academic year is a must. Of late, instances of text books not being available for months after the commencement of the academic year have been distressingly frequent. For instance, the text book in English for the March 1975 Intermediate students did not become available till October 1974. The English text book for the present First Year Intermediate students is not yet available (till the end of September 1976). This makes for very uneven explanation of the lessons, and contributes to lowering of standards. Better libraries must be provided in schools and colleges to allow the teachers to improve their minds, and encourage original reading among the pupils.

At present there are several hurdles in the way of teachers outside universities who try to improve their qualifications. Those in affiliated colleges who wish to work for a research degree have neither library nor laboratory facilities. The libraries in most of these colleges are rudimentary,

consisting mostly of text books. In such a situation, it would help tone up academic standards if teachers interested in, and having aptitude for research are assisted to go to the universities, work for a M. Phil. or a Ph. D. and get back to their jobs. Such a measure promises well for the improvement of the standard of Higher Education as a whole.

At the school level too, teachers should be given opportunities to keep themselves aware of the advances in their areas. Since every school cannot afford the resources to build up a good library, periodical refresher courses and workshops can be of considerable help in achieving this objective. Audio-visual aids like filmstrips and sound tapes, which are at present available only in name can be made more use of in teaching. These are some of the positive steps that can bring about qualitative and quantitative improvements in the standards of teachers and pupils in our schools. Those concerned with education earnestly hope that they will receive the earnest consideration of the authorities, and implemented. These steps can bring about a real improvement of standards, instead of a mere improvement of examination results.

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## TREASURE HUNT

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# Is Intelligence the same at I. Q. Score ?

By

**Shri G. S. Varma,**

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**T**HE question: Is Intelligence the same as I. Q. score? needs our attention. The term I. Q., first used by Stern (1912), expresses the ratio of an individual's Mental Age (MA) to his or her Chronological Age (CA). This ratio is multiplied by 100 to avoid fractions.

Mathematically expressed:

$$I. Q. = M. A. / C. A. \times 100$$

The Intelligence Quotient indicates the rate of mental development. Its value normally is 100 if the mental development perfectly keeps pace with the growing age. It is more than 100, if the rate of mental growth gets accelerated and less, if retarded. That the Mental Age does not appropriately represent the mental capacity of an individual is quite clear from the simple fact that persons of different ages may attain the same mental age.

Terman (1916) categorised children as dull, average, superior, very-superior and genius in intelligence according to the varying ranges of I. Q. scores i.e.,

I Q Score Range	Category
80— 89	Dull
90—109	Average
110—119	Superior
120—139	Very Superior
140 Plus	Genius

These categories were arbitrarily determined to facilitate classification and statistical analysis.

In order to answer the question raised, it is helpful to understand the nature of Intelligence. Much work has been done by Spearman, Thomson, Vernon in Great Britain and Stoddard, Thorndike, Thurston and many others in America to give a clear concept of this term. It is quite difficult to define 'Intelligence' precisely. Some think that intelligence is the "capacity to adjust oneself to the new situations." Others regard it as the 'ability to learn'. Still others hold that it is the 'ability to do abstract thinking'. But these three broad views of intelligence speak of its functions rather than its nature.

A search for the nature of intelligence has important theoretical roots that help in the construction of tools of mental measurement. Practically during the first half of the present century hectic efforts were made to devise sophisticated instruments of mental measurement. On the one extreme Thorndike put forth his 'Multifactor Theory' of Intelligence. Professor Carl Spearman attacking Thorndike's atomistic approach, forwarded his 'Two Factor Theory' represented by the general ability

designated as 'g' factor and the special ability called 'S' factor. To compromise the two extreme views, L. L. Thurston forwarded the 'Group Factor' Theory represented by six Primary Mental Abilities viz, N (the number Factor), V (the Verbal Factor) S (the Space Factor), W (the Word Fluency Factor), R (the Reasoning Factor), and M (the Rote Memory Factor). Originally supposed to be functionally independent of each other, it was discovered that these six factors are positively and significantly inter correlated. This has once again thrown budding clarity into utter confusion. At times it appears that Prof. Spearman's Two Factor Theory approximates truth. But no seal of finality can be put on this issue so far.

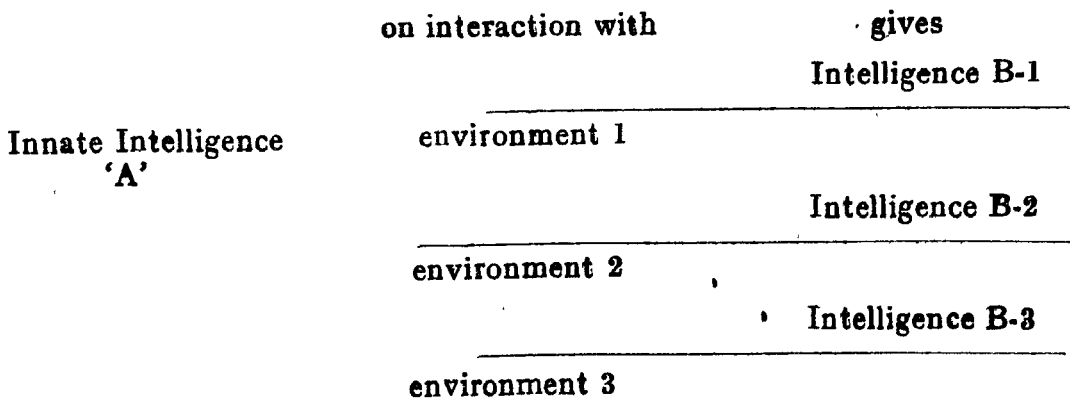
The precise nature of Intelligence being obscure, it is doubtful if our intelligence tests items really sample intelligence. The intelligence Tests at best, sample human behaviour, which appear to be a final product of innate intelligence and the cultural environment. It would be quite absurd to try to measure the mentali-

ty of a Negro or an Eskimo, whose cultural setting is entirely different from that of an Englishman or an American on the same instrument of mental measurement — be it a point scale or a test.

Innate Intelligence being a hereditary trait has a genotypic quality of its own. This innate intelligence is reacted upon by a social and cultural environment, what we broadly term as education. Interaction of innate (genotypic) intelligence with cultural environment results in what may be called apparent (pheno-typic) intelligence. What we are able to measure with our intelligence tests is the apparent intelligence rather than the innate one. The real nature of which is as yet far from being clear.

The Canadian psychologist, D. O Hebb has pointed out that I. Q. is an estimate of Intelligence 'B' (phenotypic) as he calls it and not the innate intellectual capacity which he styles as Intelligence 'A'. Even this intelligence 'B', as measured by our tests, is open to errors of sampling and measurement.

Diagrammatically, we could show as



G. A. Ferguson has pointed out how the demands of a culture shape intelligence. A society of hunters would prize achievement in hunting

whereas a modern society valuing abstraction of symbols would expect its intelligentsia to excel in this quality.

Meckay has rightly said that the I. Q. scores may be compared for their present ability to function within a particular society but they cannot be compared on their innate capacity for development. I Q scores may be taken to reflect differences in capacity or intelligence 'A', only when the environments of those being compared are psychologically identical.

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# INDUSTRIAL DEVELOPMENT

## IN ANDHRA PRADESH AND GENERAL PROBLEMS

BY: DR. RAM K. VEPA, I. A. S.

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# *Is it My Job ?*

By

**Shri K. Srinivasamurti, M. Sc., B. Ed.,**

*Post Graduate Teacher, M. G. H. School, Guntur.*

ONE day a parent came to the Headmaster of my school. He complained about the behaviour of a teacher towards his son. He said "The teacher always ridiculed the boy in the class. Once there arose a dispute between my son and his classmate. When it was brought to the notice of the teacher he advised them to go into the open and fight it out. It is not proper on the part of the teacher to do so. He should provide the children necessary guidance." The concerned teacher was also present there. He exclaimed "My business is to teach Mathematics. Am I to do the job of a policeman? Is it my job? You should take care of the boy."

This episode made me think about the role of a teacher in a school. The parent's disappointment and the teacher's disgust are both real. It is no doubt that a teacher's prime function is to teach. But it is also agreed that teacher should be concerned with the child's allround progress. Even though a teacher believed that he is concerned only about the intellectual training of the child, still his methods and attitudes influence the growth of the youngsters in other spheres also. Therefore I believe that it is necessary for the teacher to know the nature, direction and extent of his influence on the pupils.

Apart from the intellectual attainment there are five important attributes of a mature person. The teacher should keep in mind some of the salient points in this area.

## **1. An adequate Self-Concept :**

The way a student feels about himself has much influence on his achievement. His experiences of success and failure in turn influence his self-concept. Sometimes a child who feels that he is unwanted often tries to attract attention by stealing, temper tantrums and functional illness. Also children often have unrealistic self-concepts. For example, an intelligent boy may feel that he is stupid, or a student without aptitudes may plan for an Engineer's career. This often leads to frustration. Therefore teacher should help a pupil in acquiring realistic attitudes of self-acceptance.

## **2. Development and use of one's capacities :**

The pupils' mental and physical abilities should be fully developed and used. For example every child is capable of thinking (except in few extreme cases). If the pupils are forced to repeat only what the teacher dictated and opportunities are not provided for the original work of the pupils this ability will not be developed. During school years children should be helped in develop-

ing their capacity to analyze, interpret, evaluate ideas and take responsibility. The extent to which one develops depends upon the amount of encouragement he receives.

### 3. Meeting reality without undue stress :

Everyone has to face conflicts in his life. This is true about children also. He faces many conflicts at home, during play, and in school. But in resolving it he should not be emotionally disturbed. The teacher should notice such signs of conflict and help the child in meeting life demands effectively.

### 4. Concern for Others :

All social work, and development programmes have for their basis the concern for others. The child should develop the ability to love beyond oneself. Psychologists call this *Empathy* or *Social Imagination*. In our example if either of the quarrelling students have learnt to have concern for the other the problem would have been solved peacefully.

### 5. Creative Participation:

A child does not live alone. He lives in an environment. Therefore he must suitably adjust his behaviour to the environment, but this alone is not enough. For real progress his participation in environment is necessary. He must reconstruct the environment in the form he holds valuable in terms of human worth and dignity. The teacher should help the child in recognising what is valuable and encourage the child to participate creatively in the school activities.

Now in the light of foregoing discussion how should one answer the question *Is It My Job?* Encouraging pupils for better achievement, helping them in disputes, guiding them in emotional conflicts, in developing their abilities, in building an adequate self-concept the teacher's duties are clear. All these things and more not mentioned here constitute his job.

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## Raise Standard of Higher Education

**E**DUCATION today is facing a challenge the like of which has not been witnessed in the history of India. There is wide-spread talk that the standards of education are deteriorating from bad to worse but it is not easy to say that how wide-spread is the reported deterioration. Whatever be the size and intensity of the problem we must take cognisance of its true perspective and locate the complexities.

**I**N the first instance, admissions in the educational institutions in number of places are made on donations, pressures, influences, and without rational and well thoughtout considerations. In big cities where educational facilities are not enough, agitations are adopted to find accomodation for the accelerated number of students. A large number of students who are admitted are just wasting their time and energy, because nothing interests them there and they have nothing else to do. This overcrowding, moreover, has resulted in inadequacy in staff, building, equipment and other such amenities, projecting lowering standards in educational attainments, social values and emotional stabilities on the part of students and frustration and

irresponsibility on the part of teachers.

**G**ENIUNE talents are thwarted from profiting higher education due to wrong procedures of selection.

**S**ECONDLY there is a lack of proper recruitment of the best available teacher. Good salaries and other related amenities are least provided to them. One can not expect, from teachers who are economically wanted and psychologically and intellectually non-stimulating? And we cannot expect from teachers who are least adaptable to the changing methods and values of teaching and from new recruits to this profession who lack orientation to their work.

**T**HIRDLY adequate and well organized research facilities in most of our Universities are almost non-existent. This hampers the enrichment of knowledge through new vistas in the field of education and thus reflects the standards of education indirectly.

**Q**UALITY is the essence in this field and men of calibre are needed here urgently than elsewhere. There is no justification for rating teachers lower in

financial terms than civil servants, as a result of which it becomes difficult to attract the best talents to the teaching profession.

**FOURTHLY** education is a state subject. The standard of education cannot be accelerated because of paucity of resources and non-coordination of institutions of higher learning at all levels throughout the country. Further the expansion in education is being done with no perspective planning and it is tending to be a national problem as a menace resembling a flood havoc.

**FIFTHLY** in the language tussel, the academic standards have suffered. At the higher stage, by tabooing the use of English as a medium of instruction, we are inviting a dark period in our educational history. What would happen to our existing libraries which will not be useful to the coming generation? It is a sad spectacle to see books, remaining in dust untouched in the shelves.

**NOW** at all levels of education, our administrative system too has been unequal to the new demands and pressures. Appointments and selection to higher posts in the Universities are made often on political grounds which have marred the sanctity of these temples of learning and thus are responsible for the deterioration of standards in the education directly and indirectly both.

**LASTLY**, the challengeable validity and objectivity of the present system of examination,

and outdated methods of Teacher-education have also contributed to the deterioration in the standards of education.

**WE** have so far given the causes for deteriorating standards. but now we will reflect on remedies. In the case of admissions, better we restrict the entry of those students who are unpromising and persistently refuse to work and are there only to waste their time, energy and money. Besides it, adequate staff buildings, equipment and other essential educational amenities should be provided as far as possible. Genuine search for talents should be made and make it possible that all promising students capable of higher education are equipped with proper facilities like scholarships, stipends, books, residential facilities etc.

**BEST** available teachers should be attracted by providing them with reasonable salaries and related amenities. There should be provision of training and orientation facilities both for new entrants and the old ones, who have many years of work to their credit and are not in a position to turn over a new leaf. For the benefit of those teachers who have the proper talent and inclination for research, universities must make proper and adequate facilities of library and other such like things. There is no doubt that a good deal of thought has been given towards the salary and conditions of service for university teachers by the U. G. C. but most urgently needed is the

quality of teachers which can only be attracted provided we equalize, teachers with other civil servants, say in, the police or revenue or judicial departments or technical professions. If we are anxious to raise the standard of education, the higher education beyond the secondary stage should be placed on the concurrent list. The birth of Educational Institutions needs to take place with great caution and thinking. There is an immediate necessity of planning the development of different universities in the states so that each university could develop selected facilities, rather than have endless duplication of the same courses in them.

A college student must have at least bilingual efficiency—efficiency in the use of English and that of his regional language. He would have picked up working knowledge of the national language Hindi at the Higher Secondary stage.

STUDENTS in college level should be free to answer the question papers in national language, but the teacher should be free to impart instruction in English, if it is the language of his choice. For developing national unity, the advantage of English, must not be sacrificed because it is the link language or language of the intellectuals throughout the country.

APPOINTMENTS and selection to higher posts in the universities and colleges should not

be made on political grounds but purely on academic qualifications. THE examination system should be modified so that it exercises a beneficial and liberalizing influence on teaching practices instead of baneful and restricting influence as it often does now.

MOREOVER it should be made broad-based so that it will provide a more comprehensive assessment of a student's quality and minimize the large percentage of failures, involving incalculable waste of national resources.

REQUISITE emphasis should be given for experiments in new methods and techniques of teaching which will promote independent study, thoughtful work in libraries and laboratories.

IN conclusion it can be said that the suggested remedies be immediately implemented to enhance the standard of higher education. It can only be done provided we enthusiastically welcome the recommendations of the education commission and work out our plans accordingly with a continuous endeavour.

— G. R. Sharma.

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## REVIEWS

**'BHILAI STEEL PROJECT AND ITS IMPACT ON THE TOWNS OF CHHATTISGARH':** — By Dr. H. K. Choubey, The Indian Institute of Geography, 10-3-81/1, East Marredpally, Secunderabad-500026, A. P., 1975 Pp. 241, Rs. 40.00.

Dr. H. K. Choubey was born and brought up in the city of Durg, M. P. He is M. A. in Geography from the University of Saugar and was awarded the Ph. D. Degree in Geography by Ravishanker University, Raipur. He is a voracious reader, a prolific writer and a profound thinker. He is the author of the book, 'Bhilai Steel Project and its Impact on the towns of Chhattisgarh' published by the Indian Institute of Geography, Secunderabad under the scheme of Social Sciences Research Publications Series. The publication has also been financially supported by the Indian Council of Social Sciences Research, Ministry of Education and Social Welfare, New Delhi.

Dr. Choubey has seen the establishment of the Bhilai Steel Plant and its impact on the surrounding towns in Chhattisgarh from the very beginning. As such he had the ripe experience to produce this first geographical study on the impact of new towns and it can be truly called a welcome addition to the 'growing literature on the geography of Indian towns.'

The volume is really a valuable source of information for town planners, industrial and urban geographers and other social scientists who have special interest in urban and

regional planning. The book has been very well illustrated with appropriate illustrations and the volume deals with important chapters on, 'Geographical Setting of Chhattisgarh', 'Socio-economic setting of Bhilai', 'Bhilai steel project and its impact on urban population, industry, commerce, Trade, Transport and communication', 'Impact on Social and Public Services' and 'The Impact of Bhilai on the Morphology of Towns in Chhattisgarh'. The author has also critically analysed the socio-economic aspects in the impact zone of Bhilai. He has also high lighted the significant changes in its socio-economic patterns as a result of emergence of the new industrial town of Bhilai.

The magnificently written and beautifully illustrated book tells in a nut shell the whole story of Bhilai steel project and its impact on the surrounding towns of Chhattisgarh. It is unique in that the author has findings selected and integrated the of contemporary research into text that will be of special value to those preparing to work for town planning. The volume is wonderfully designed as a text because of its chapter bibliographies, its tables and figures depicting growth and its numerous illustrations. In fact, there is a wealth of material for researchers too. The book is easy to read and has a list of many references. No doubt the treatise is painstakingly prepared and valuable. The paper, faultless printing and the get up of the book are of a quality to match the ideas the book contains. Hence, I unhesitatingly recommend that the book should occupy a place of pride in the libraries in all educational institutions.

— Shamsuddin.

**EXPORT PROMOTION OF ASBESTOS AND BARYTES IN ANDHRA PRADESH**—By B. P. Rao and S. Ramamurty, D. C. 1/2 Pp. 60 plus 25, not priced; Copies: B. P. Rao, Head of the Commerce Department, Osmania University, Hyderabad.

Andhra Pradesh produces highest quality asbestos which though only four per cent of India's total production of the mineral, fetches 46 per cent of its total price. Cuddapah is its home district distantly followed by Anantapur and Kurnool. Mainly used in the manufacture of building materials and of matrixes for locomotives, boilers, fire-boxes, flashing and limpot sheets etc and spray for heat insulation by Indian Railways, and by automobiles and ships, it is also used in combination with other substances for various manufactures. India's 20, 000 metric tonnes of annual production being quite insufficient, 60, 000 m. tonnes are imported. Increased production and invention of substitutes for asbestos (like bamboo pulp in building materials and mixtures of ground mica to manufacture insulating materials) are essential.

Over 83 per cent of India's barytes is mined in Andhra Pradesh, 50 per cent in the Cuddapah district, 13 per cent in Prakasam district and the rest in Anantapur, Nellore and Khammam. Mainly used in the patroleum industry, it is in sharp demand from oil-drilling Countries. It is also needed to manufacture paints, tyres and other rubber products and a large variety of other goods... India's annual production of abut 60, 000 m. tonnes is too very small to meet increasing home and foreign demand.

Prof. B. P. Rao, assisted by Reader B. Ramamurthy points out in this book after a Study financed by the UGC through the Osmania University, that there is much duplication, waste and overlapping in the working of our mines which should be avoided; that the present low per capita production of Rs 9/- should reach Rs 90/- by 2, 000 A. C. and that lapses in leasing procedure should be rectified. The authors emphasise that the mining industry which yields quick profits deserves adoption of long-time, perspectives, thorough survey, scientific and economic management, strict enforcement of statutes and rules, provision of facilities like feeder roads etc. as in the case of industrial centres, reduction or abolition of royalties, mechanisation of operations and conduct of research to improve the quality and volume of production. 15 Tables with diagrams and Appentices covering 17 pages furnish informative and arithmetical details,

It is up to the Union and A. P. State Governments and the Miners to implement the suggestions in this illuminating work: and up to the public to secure the implementation.

— T. R. R.

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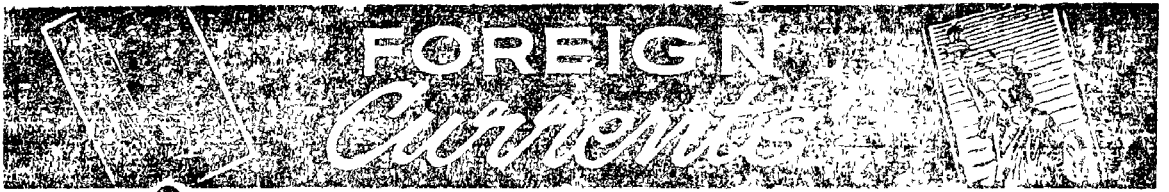
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# WHAT WILL WE DO WITH OUR LEISURE?

By A. J. VEAL,

*Centre for Urban and Regional Studies, University of Birmingham.*

What we do in our free time depends largely on age, sex and income. But it also depends on factors which themselves adjust to changing society and which can be radically affected by technological innovation. This poses problems in predicting future trends.

Paradoxically, but inevitably, forecasting involves studying the past or, at best, the present. It is always hazardous, especially in the social sciences, where predictions may turn out to be wrong because of things done as a result of the predictions themselves. If an economic slump is predicted governments may take action to avoid it, so it does not happen. Indeed, it is in the area of economics that social science forecasting is the most elaborate and highly developed. Demographic forecasting is well developed too, and both are crucial to the forecasting of leisure activity.

A project begun in Birmingham in January 1976 and financed by the U.K. Social Science Research Council makes use of data from a social survey of 25000 adults carried out in 1973 by the Office of Population Censuses and Surveys (OPCS). It assumes leisure to include all time not spent in paid employment or in attending to personal matters such as eating, sleeping and washing. This is by no means clear-cut because leisure cannot be defined solely in terms of time or particular kinds of activity; it is essentially a state or attitude of mind, a state in which the individual is free or feels free and considers himself to be doing whatever he is doing solely from freedom of choice and not because of some obligation or outside constraint. Some family activities are leisure to

some people but chores to others. Certain people, especially professional workers, may consider themselves to be at leisure when engaged in some sort of activity related to their job in the evening or at weekends, whereas others would call the activity work or overtime. Some visit museums as a leisure activity but others may visit them for education. In our research we aim to deal with leisure activities which the individual himself would define as such. Questions in the interview survey upon which this study is based are carefully worded to meet this objective.

## National Survey

The General Household Survey (GHS) is conducted annually by OPCS. It is an 'omnibus' one containing questions on a wide range of social issues related to the work of several government departments. The leisure questions were included in 1973 at the request of the Countryside Recreation Research Advisory Group (CRRAG) which is made up of representatives from a number of official bodies such as the Countryside Commission, the Sports Council and local government bodies, all concerned with countryside and recreation matters. Between them such bodies spend millions of pounds sterling every year on providing recreational facilities, so they naturally have an interest

Percentage participating during 4 Weeks prior to interview

Social Group		Active outdoor sport	Visits to the countryside	Going to films	Amateur music and dramatics	Gardening
Sex	Male	24	10	11	3	36
	Female.	11	10	10	3	25
Age	Under 20	32	6	34	6	5
	30—44	20	12	11	3	34
	60 and over	7	7	2	2	31
Income (£ sterling per week, gross)	Under £20	9	6	3	2	27
	£30—£40	16	10	9	3	32
	£80 and over	19	15	18	7	37
Car ownership	Yes	21	13	12	4	34
	No.	11	5	8	2	25

Levels of participation in various leisure activities, related to a number of social variables. The figures were obtained from the General Household Survey.

in present and future patterns of demand. Interviews for the GHS are carried out throughout the year in areas sampled from the entire UK. The 1973 survey was the first national one since 1965 relating to recreation.

There are three basic measures of leisure activity. Firstly, to determine how many people are engaged in a particular activity, we can measure the proportion of the sample involved in it and apply the findings to the population as a whole. Secondly, we can measure the number of times the average person engages in the activity in the course of, say, a year; this, when applied to the whole population, gives the total number of participations in a year. Thirdly, it is possible to measure how much time the average person spends on particular activities or groups of activities. This last approach is best pursued by asking people to fill out 'diaries' of what they do over, say, a day, a weekend or a week. This kind of information is not, however, available from the GHS so we are confining our study to the first two ways of measuring.

Data available from the first give the proportions of population engaging in each of more than 80 activities, from needlework to mountaineering and from

concert-going to gardening. Respondents were asked about what they did over the four weeks prior to interview, so the measurement relates to a four-week period only and to the time of year the interview took place. Information from the second sort of measurement, the average number of times each individual engages in an activity, is also available from the GHS through respondents' own estimates of the number of days on which they had engaged in it over the previous four weeks. This figure, too, fluctuates with the time of year the interviews were recorded, but the available information can give an aggregate 'annual' figure. This measurement gives more prominence to those activities that people tend to be engaged in on a regular and frequent basis; they include amateur dramatics, music and most kinds of sports.

### Forecasting

There are two main, alternative approaches to forecasting how people will use their leisure time: we can use either time-series data or cross-sectional data. Time-series data indicate the growth or decline in participation in various leisure activities over a period. We can extrapolate trends into the future directly or relate them to underlying causal factors, basing our forecasts



in turn on forecasts of future behaviour of the underlying factors. For example, if the fall in cinema attendance is related to growth in the ownership of television sets, it might be easier or more reliable to base predictions on the likely future increase in the number of television sets rather than on the decline of cinema attendance directly. Unfortunately time-series data are available for only a small number of activities at national level. Those for cinema attendances are exceptional because of the taxation system. Local authorities keep records of attendances at swimming baths, libraries and other public places; in some cases these are collated at national level, but no records are kept of, for instance, visits to parks or to the countryside or to public houses.

Although social surveys provide the most comprehensive source of information, they are expensive; so they are not carried out often enough to provide time-series data; we hope that including questions about leisure in the GHS will remedy this. As already mentioned, the previous national surveys were carried out in 1965, although a number of surveys have been conducted since then in various regions of the country. Some attempt will be made to look at trends using these previous surveys, but a lot of work needs to be done to produce data from the GHS that is comparable in form to data from previous surveys, which in many cases dealt with a different scope of recreational activity and did not sample from the same age ranges of the population.

The cross-sectional approach is less demanding in terms of data collection, because a single social survey can suffice. But it involves some questionable assumptions. The procedure is to examine the rates of participation in leisure activities by various social groups and measure the relationships between participation rates and certain characteristics of the groups such as age, income or car-ownership. The model then assumes that if these characteristics change, participation in leisure activities will change. Past research has shown

that the key variables are the level of education and type of job in addition to the characteristics already mentioned. Sex is also an important classification, for men indulge in a different range of leisure activities from women. The table shows levels of participation in leisure activities for groups identified by some of these variables, revealed by the GHS.

### Regression Analysis

Some well defined relations are apparent immediately, particularly the way that those with higher incomes and with cars are more active in all types of recreation. These differences apply also when individual activities are examined, rather than the grouped activities shown in the table. The relationships can be measured using regression analysis and, where the effects of more than one variable are examined together, using multiple regression analysis. The statistical process of regression gives equations that relate levels of recreation participation to the characteristic variables. Forecasts of age/sex structures of the population, levels of income and extent of car-ownership and so on can then be fed into the equation to produce estimates of future levels of participation in recreation. As mentioned right at the beginning, the method depends on forecasts of the characteristic variables being available from other sources.

The difficulty in this approach is that the cross-sectional patterns in society at any particular time may not indicate what the trend will be for society as a whole. The trouble is that different types of variable are at work. Some changes imply a change in the structure of society; for example, an increase in the proportion of professionally qualified people or an increase in the proportion of elderly persons in the population. In cases like these the cross-section model probably works; that is, we might expect the additional professional or elderly persons to show similar behaviour patterns to those of today. But variables such as income or car-ownership have a more widespread effect. If all incomes increase, the poor may not

necessarily begin to emulate the behaviour of those who are better off; they may instead merely spend more money on activities they have traditionally enjoyed. We shall explore these problems by constructing a cross-sectional model and using it to 'project backwards' to 1965 when the earlier surveys were carried out. We shall ask what *would* recreation patterns have been in 1965 if this model holds good? The differences between these 'predictions' and the true picture revealed by the 1965 surveys will be a test of the model. But the problem of comparing the two surveys, as discussed earlier, will have to be resolved.

Confounding both approaches is the matter of technological change, which may fundamentally affect leisure patterns. Cinema, radio, television and the motor car are influences that immediately spring to mind. Ten-pin bowling was made possible by the development of the requisite machinery; the 'explosion' in boating has been made possible by the advent of cheap, reinforced plastic hulls, and transistorized hi-fi equipment and cassette tape-recorders are now commonplace. Technological innovations of this sort are difficult to foresee, but it is likely that the inventions which will affect leisure activity over the next 20 years have already appeared in industry, commerce or defence. Television sets are already being modified to allow their screens to be used for 'tennis' or 'football', played with additional controls. Computers, too, may be adapted in much

the same way, and developments may come from aviation and hovercraft technology. At the moment we can do little more than speculate about these factors. A technique which might possibly have been used to examine this further is the 'Delphi' one in which 'experts'—in this case perhaps scientists, recreation planners and commercial providers—suggest likely developments in their own fields and, gradually, through an iterative procedure, reach some consensus about the future. But we will not include that approach in our project.

Another key factor is the supply of facilities, especially for public use. If, for instance, all indoor swimming pools are fully used there can be no increase in indoor swimming unless more are built. If there is a sizeable unsatisfied demand, the rate of building may determine precisely the rate of increase in participation. Some examination of this will be possible by comparing regional variation in supply and participation, but results cannot be conclusive because some of the variation may in fact be attributable to variations in taste, tradition and climate from region to region.

Essentially, the project is exploratory. There has been no previous attempt to forecast future leisure patterns in Britain through the use of national data. A limited amount of work has been done in North America but, as far as is known, few if any attempts have been made to explore this subject in Europe, where conditions are somewhat different.

—By Courtesy from "Spectrum" - British Science News 1976 No. 141/1.

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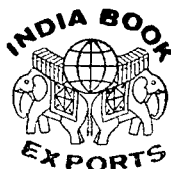
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