A SURVEY OF LITERATURE

Educational research is of recent origin in India. The first Ph.D in education was awarded by Bombay University only in 1949. The research activity could never gather sufficient momentum and whatever little it has was picked up only recently. As far as examinations and educational evaluation are concerned, Passi and Sansanwal have done a trend analysis of research in this area. Interestingly, the first Ph.D in education was in the field of examinations itself and that was the only Ph.D to be completed before Independence. After Independence there was a gradual increase in Ph.D and institutional research in this area which they divide into six sub-areas: (i) Achievement Tests, (ii) Diagnostic Tests, (iii) Factors Affecting Achievement, (iv) Examinations, (v) Prediction-Admission-Promotion, and (vi) Failures.

Out of 127 studies at doctoral level or otherwise during the period 1944-75, 105 studies were completed during the period 1960-74 when there was a heavy concentration (about two-thirds) in the sub-area of Achievement Tests. No research in the area of Diagnostic Tests was done up to 1964. The studies related to Failures were undertaken only after 1954, and that too, only at the institutional level.

Looking out for popular research areas in examinations Harper and Misra\(^1\) classify research studies in India broadly under two sub-heads: functional aspects and efficiency aspects — something similar to our idea of externalities and internalities respectively. Lack of research on functional aspects is proved by the fact that they devote only two pages to their review as compared to sixteen pages to efficiency aspects. Their assessment is that studies on the functional aspects of examination have produced what is essentially a survey of statistics about different examinations in India.\(^2\)

The division of Harper and Misra matches with our conception of internalities and externalities of

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2. Ibid.
examinations. But in case of the six-fold division of the area of educational evaluation and examinations by Passi and Sananwal, Achievement Tests and Prediction-Promotion-Admission cover largely the internalities, Diagnostic Tests, Factors Affecting Achievement and Failures deal with externalities, and Examinations cover both. Combining the review of Harper and Misra with that of Passi and Sananwal we may conclude that externalities have largely been neglected at the Ph.D level but have attracted some attention of institutional agencies. Like the other side of the moon, these aspects of examinations have been away from the ken of scholars except for certain features showing themselves partially at times through institutional investigations or individual dissent. As our inquiry is aimed at externalities or functional aspects, we would like to take a somewhat synoptic view of whatever little is known in this area.

3.1 General Issues

One area in the partially visible zone of examinations is that of general contextual issues. Research effort has been rather inadequate. Salamat Ullah\(^1\) made the lone attempt to give proper orientation to examinations

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in India in the light of progressive education's theory and practice. He made a systematic study of the examination system during the early post-Independence era covering its effects on various aspects of education. The study includes a short - rather too short - survey of education in colonial India along with an assessment of the new needs and aspirations that emerged in the post-colonial period. Besides covering the development of evaluation techniques in India, it comes out with a set of proposals for the re-organization of the system. Future examinations are anticipated to play quite a different role in that they will lay emphasis more on guidance than on selection and weeding out; more on improvement of achievement than an assessment of achievement. The limitation of the study lies in the myopic view of an educator. Most of the issues discussed are essentially pedagogical in nature. Although peripheral attention has been paid to psychometric problems, the sociological and economic ramifications have been woefully neglected. It meanders through the examination systems of UK and USA without so much as comparing them with the Indian system much less bringing out their impact on it.
Hill's attempt to discriminate between 'improvement' and 'reform' of examinations shows an implicit concern for their functionality. Improvements are no doubt needed to make them objective based, to de-emphasize essay tests, to reduce options in questions, to increase the objectivity of scoring etc. But reform would aim at more fundamental changes in the system with a view to reducing the high rate of failure. Are we sure that those who pass have qualified for university admission or those who have failed do not deserve the school leaving certificate? The trouble is that school boards are trying to certify students to enter universities as well as to enter life, using the same yardstick. He pleads for the introduction of graduation at the secondary level in India. His contention is that successful completion of secondary education should be recognized as a valued achievement, whether or not the student wishes to continue his education beyond this stage.

Dave and Hill have given a thought provoking analysis of the educational and social dynamics of the examination


system in India. They see a symbiotic relationship between examinations and the milieu in which they operate, regardless of who controls them. They are also convinced that the social dynamics of examinations is more pronounced in countries which lean too heavily on external examinations, as is the case in India. The schools allow several weeks of preparation for examinations with the result that the effective school year is considerably shortened. They have also become symbols of high achievement in Indian society. One's standing in the examinations affects many aspects of one's life. Not only is it a basis of economic success, but it is also a booster of prestige in one's family and community and of one's value in the 'marriage market'.

Gad\(^1\) has surveyed the 'misadventures' of examination reform in Indian Universities. He lists them as the introduction of semester examinations, internal assessment, question banking and grading system. He feels that these four endeavours of examinations reform at the university stage became futile exercises and we

find that we have not budged an inch from our original position. If any examination reform programme is to succeed, it must take into account the recent changes in social structure, student population and faculty composition.

3.2 Phenomenal Failures

The operation examination unfolds itself most shockingly in the form of failures, which have far reaching consequences. These affect those who fail, their parents who support them, the institutions which nurture them and the nation which subsidizes them. They involve huge wastage of time, money and materials which no country can afford. Above all, they create social and psychological problems. In spite of our getting used to this tragic drama of large scale failures, we have not remained unperturbed by their grim and gloomy overtones. Their awesome magnitude has already stimulated a number of investigations.

In the early sixties, Kamat\(^1\) analyzed the results of the pre-degree examination of Poona University, which had been introduced a few years earlier, with a view to finding the effectiveness of the new system. The

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pass percentages for the years 1959, 1960 and 1961 were 40.3, 39.0 and 38.3 respectively. Women did better than men in all examinations. Also the results of science students were the best, followed by commerce and arts in that order. Furthermore, most of the students failed because of failure in three or more subjects. He could only discover the well-known pattern of relationship between pre-degree results and those of the previous SSC examination. Those who passed the SSC examination in third division had very little chance of passing the pre-degree. Even among the second divisioners two-thirds of the science candidates and 55 per cent of arts and commerce candidates failed to clear the pre-degree examination. Similar was the case with the first divisioners - about 1 in 6 to 1 in 3 failing to make a mark at the pre-degree level. The most puzzling question of course was: which of the two examinations was really wrong, the SSC in its predictive validity or the pre-degree in its assessment? Perhaps both.

The Directorate of Extension Programmes for Secondary Education ¹ made a pilot study of failures

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in the examinations conducted by various boards of secondary education. Notwithstanding its lack of comprehensiveness and finality, it showed that in the 1962 and 1963 board examinations only 6.1 per cent and 4.5 per cent respectively of the regular candidates got first division; 21.5 per cent and 25.2 per cent respectively secured second division, while 18.2 per cent and 29.1 per cent respectively were placed in third division. In the matter of subject-wise failures, majority of those who failed did so in two subjects.

Dave and Patel made a comparative study of the pass percentages of various boards of secondary education in the country during the five year period 1960-4. They discovered that All-India pass percentages both for high school and higher secondary school stages remained fairly constant over the period - ranging from 42.9 to 45.7 in case of the former and from 55.9 to 60.0 in case of the latter. The variation in the pass percentages of individual boards was, however, quite astonishing. The effective ranges of the combined (Regular & Private) pass percentages at the high

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school level varied from 57.7 in 1961 to 67.0 in 1963. In case of higher secondary results, they varied from 59.2 in 1961 to 86.3 in 1963. The study also quantified the well-known fact that the pass percentage of regular candidates is always higher than that of the private. The difference over the period 1960-6 ranged from 18.8 to 24.3 in case of the high school and from 19.2 to 39.1 in case of higher secondary examinations.

3.3 The Aetiology of Failures

Decimation of the student population by the examination guillotine led to a search for scapegoats. The society would put the blame on poor teaching, teachers would pass the buck on to unresponsive administration and poor physical facilities while administrators would like to fix the responsibility on the students themselves. The riddle had to be solved. Some studies in this area did try to prove that they were not just looking for a black cat in a dark room.

An early attempt was made by Adaval\(^1\) to study the causes of failures in the high school examination in Uttar Pradesh. His focus was on extrinsic causes, i.e., those

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1. S.B. Adaval, *Causes of Failure in High School Examination* (Allahabad University, 1961)
that are attributable to examinations per se. Through
the use of performance tests of intelligence, Rorschach
ink-blot tests of personality and adjustment inventories
sent to school principals, teachers, students and parents,
it proved - if a proof was at all needed - that most of
the students failed because they were not endowed with
the level of general intelligence which was needed for
academic success. This, perhaps, only established that
there was nothing much wrong with our examinations - at
least, they were not failing the intelligent students.
The findings also showed that most of the failed
students were introverted, and faced deeper problems
of adjustment as compared with normal students. The
school principals, while blaming it on the poor economic
conditions of the students, over-crowded classes, and
under qualified and frustrated teachers also pointed
their fingers at defective examinations. Parents
seemed to have reconciled to the fact that failure
was due to economic difficulties and were satisfied
with the quality of teaching or otherwise felt that
they could not do anything about it.

The Directorate of Extension Programmes for Secondary
Education thought of a facile way of identifying the causes

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1. Directorate of Extension Programmes for Secondary
Education, "Examination Reform: An Opinion Survey",
of failures through an opinion survey. It attributed the failure to administrative weaknesses like ineffective guidance, inadequate supervision and indifferent administration in the schools. It fixed part of the blame on the rapid expansion of education without the requisite improvement in the school plant. It also blamed curriculum defects like the increase in the volume of courses and ungraded syllabi. On the teaching side, it highlighted mediocrity, non-availability or inadequacy of staff due to delay in appointments and frequent transfers.

The part played by teachers in success or failure of students has always been controversial. The Government of Kerala decided to penalize the teachers who did not produce satisfactory results at the SSLC Examination. This created a furore and while some of the teachers did work harder with a view to bettering the results of their pupils, they were terribly agitated over the decision which made them solely responsible for poor results as they felt there were several other reasons for such failures. Pillai decided to go into this on scientific lines. He categorized the factors that are expected to affect achievement as (1) instructional

factors; (ii) environmental factors and (iii) organizational and administrative factors. It was shown that all the three factors have a definite influence on the achievement of pupils. The analysis, however, revealed that environmental factors exert the maximum influence.

3.4 Nastage and Stagnation

The phenomenon of wastage and stagnation is experienced the world over. But perhaps it is more serious and challenging in under-developed countries than in the rest. It generally tends to be considered as an administrative problem. Buch 1 goes to the extent of classifying it under educational administration. Inspite of the area attracting considerable research attention, its relationship with examinations has remained largely unexplored.

Sharma and Sapra 2 tried to study the wastage and stagnation at the primary and middle stages. They established that the total rate of wastage and stagnation was 65.30 per cent by the time the children reached Grade V and 78.35 per cent by the time they reached grade VIII. They tried to relate the causes to school variables, pupil


variables, family variables etc. and were able to show that absence from school, for whatever reasons, is the strongest cause of wastage at both the stages.

Desai and Desai\(^1\) went into the question of wastage and stagnation in secondary education in Gujarat covering classes V-XI. They based their computation on the number of students who were admitted to Class V in 1948-49 and those who passed the SSC Examination in 1955. The investigators concluded that clear wastage as percentage of candidates who, for one reason or another, left studies before the completion of their secondary education would be around 50. The study also revealed that wastage was greater in case of girls than boys; greater in backward districts than in the more advanced ones; and that it was less marked in the case of 'Advanced Hindus' and Jains than other communities in Gujarat.

The Indian Institute of Education, Bombay\(^2\) made a similar attempt to assess wastage and stagnation at the secondary stage in Maharashtra. The apparent wastage for students who joined Class VIII in June 1949 and failed

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to pass the SSC Examination in March 1953 was 78.8 per cent. Like the above study, it also established that "the advanced community fares better than the intermediate and the intermediate fares better than the backward". Also, the wastage was found to be more pronounced among girls than boys.

The question of wastage and stagnation in university education has not been investigated in any detail. Deshmukh and Kamat conducted a micro-level study for Fergusson College, Poona. As it is an elitist institution, the results would obviously lack in general applicability. It might, however, be noted that wastage rates for men were remarkably higher than those for women - much unlike the secondary stage. The study also proved that the extent of 'stagnation' was less for science students than for arts students during the intermediate stage but it was appreciably greater for the post-intermediate stage and more for the four year course as a whole. Interestingly, women 'stagnated' less than men in all stages. The study also established that in terms of the performance in the SSC examination, the average period for completing a stage - both for arts and science students - decreased with the

1. Ibid., p.97.

increase in SSC marks.

Khan\(^1\) reviewed the studies on wastage conducted in the country with a view to analyzing the latest available information and to calculating the wastage rates for primary education. His review of the existing studies revealed their non-compatibility both on account of different methodologies adopted and also on account of their varying coverages. An analysis of the available information (1963-4 and 1964-5 data) showed that the output per thousand cohort enrolment in the primary schools came to 453 only (473 for boys and 409 for girls). This indicated that 567 students out of a cohort enrolment of 1000 pupils were dropping out in the period 1963-4 to 1964-5. This output varied from 682 to 224 in the states following the 5-grade system and from 613 to 412 in states following the 4-grade system. Besides these huge drop-outs, if the phenomenon of stagnation was also considered, the output-input ratio came to be in the order of eighty-seven per cent.

Government College of Education, Jabalpur\(^2\) conducted a study to determine the causal factors of wastage and

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stagnation at the primary level in Madhya Pradesh.

Besides estimating the incidence of wastage, the study attributed it to: (a) lack of basic facilities in schools, (b) lack of interest on the part of parents and pupils, (c) poverty, (d) large family, (e) early marriage, (f) necessity to do household work or to earn, (g) irregularity of teachers, and (h) teachers not using the local dialect.

Khandekar did a similar study of dropouts with a sample selected from ten slum areas of Bombay. Major findings of the study were: (i) fathers of the drop-outs were ill-educated, (ii) the families of drop-outs were poor, (iii) proportion of girls among drop-outs was less than that of boys, (iv) financial stringency was the most important factor for dropping out, (v) more girls than boys stopped their education due to non-economic reasons, (vi) as many as sixty-nine per cent did so on the suggestion of their parents, (vii) majority of the drop-outs and their parents reported that they were compelled to discontinue studies, (viii) only thirty-eight per cent of drop-outs had jobs, (ix) quite a few drop-outs had aspirations for higher jobs and (x) as many as fifty-two per cent of drop-outs wished to start education again.

3.5 Malpractices in Examinations

An examination system always operates in a specific social and cultural setting. If it works efficiently, its dynamics should produce a healthy equilibrium. The disequilibrium would manifest itself in many forms - one of which is the prevalence of malpractices in examinations. Cheating is nothing but an organized or unorganized defiance - in the ethical or the legal sense - of the accepted rules of the game and an attempt to beat the system. It makes examinations technically worthless, reduces learning to a frustrating experience and proves socially disastrous. As a result of it, the distinction between competence and incompetence becomes difficult to discern and the principles of equality of opportunity and social justice which are the essential ingredients of democracy, as we understand it, are observed only in their violation. Undoubtedly, it is a highly complex phenomenon and may be considered to be the illegitimate child of the education system and the under-developed economy born in a decadent society. The area needs to be probed through research. Some efforts have already been made but they have not gone beyond quantifying its magnitude.

The Government of India showed their deep concern about the use of unfair means, particularly when they are accompanied with violence, when in 1970 on the
recommendation of the Central Advisory Board of Education, they set up a special committee. Its task was to examine the present situation and make recommendations to counteract malpractices and to give protection to invigilators and others concerned with examinations. The Committee studied the problem in great detail and made wide-ranging recommendations concerning legislative measures like empowering the examining authorities to check students and prohibit those with weapons and making the indulgence of malpractices by the employees of the universities a cognizable offence. Besides, it favoured educational measures like improving the conduct of examinations and de-emphasizing the use of their results for the purposes of recruitment of admission. They even recommended that maximum age for appointment to clerical posts be reduced to 19 years and admission to colleges be on the basis of entrance tests.

The present investigator made a survey of unfair means used in university examinations at the undergraduate stage for the academic session 1972-3. It was found that


malpractices in examinations is a universal problem. Unfair means cases occurred in all the universities except Visva Bharati which is a special type of university. On the average, for every about 97 students who were registered for undergraduate examinations during 1972-3, one student was alleged to have used unfair means. The rank-order correlation between the index of unfair means and the total number of students registered was too small to stand any 'test of significance' proving thereby that cheating could not be looked upon so much as an administrative problem as a socio-economic one. The study of inter-faculty differences in the prevalence of unfair means through 'sign test' yielded interesting results. The difference between the incidence of malpractices during examinations in the faculties of Arts and Humanities including Commerce and those of Science was not significant at the 5 percent level. However, in the case of professional faculties like Law, Engineering, Medicine etc. the incidence of unfair means was significantly less than in the other two groups of faculties.

A little earlier, the National Council of Educational Research and Training¹ had conducted a similar survey for the boards of school education. The total number

of unfair means cases reported at the school stage during 1969, 1970 and 1971 were 30,602; 31,473 and 51,372 respectively. The number varied from board to board and was negligible in some cases. From the data collected in respect of 15,791 of the cases during 1971, it appeared that mass copying was the most common form of unfair means, followed by the possession of material. Subjectwise analysis showed that 26.39 per cent of the cases used unfair means in language papers, more than half of them in English alone. Mathematics came very close to English.

Bahugana\(^1\) tried to find out the causes of unfair means through a questionnaire distributed and collected on the spot from 150 college and higher secondary students at Nathdwara (Rajasthan) and 150 members of the public at Udaipur. He inferred that one of the reasons for the use of unfair means could be the way questions were asked and expected to be answered in examinations. Students contended that examiners insisted

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upon their giving attractive headlines and correct statistical figures. Finding it difficult to do so, they jotted down points on a piece of paper for use in the examination. Another interesting view was that copying was an art and came to them as a challenge. The most preferred remedies were open book examinations and the abolition of divisions from university/board examinations. Only a tiny minority was in favour of evaluation being based on class work, and surprisingly none favoured assessment by subject teachers. It seemed that students had no trust in their teachers as evaluators even when they were not happy with the present system of examinations.

Misra\(^1\) attempted to delve deeper into the general ethics of examinations. He highlighted the counterfeit nature of marks. According to him, everybody cries from the housetop that the marks awarded by examiners are not genuine measure of pupils' true achievement but no legal action is taken against anybody for circulating these counterfeit marks. The reason probably lies in the fact that no genuine measures are available against which these counterfeit ones could be compared, nor is

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it possible to establish scientifically that the marks awarded by an examiner are spurious or otherwise. On the top of this elusive nature of educational measurement is the human error which reduces both the reliability and validity of tests. The error starts with the setting of question papers, accumulates in the snowball fashion in the process and ultimately gets reflected in the marks-sheet or certificate issued to the candidates. The administration of papers brings in copying and other unfair means which is the most unethical part of it.Copying tends further to reduce the already poor reliability and validity of examination by not allowing uniform conditions of administration. As far as scoring is concerned, the fate of the candidate often depends on the examiner to whom the answerbook is sent. And to cap it all, the marks which are the product of such an unhappy confluence of avoidable and unavoidable circumstances, when entered in the marks-sheet become infallible and no authority on earth can change them except in cases where scrutiny reveals some discrepancy.

Mandal\textsuperscript{1} attempted to find out the factors associated

\textsuperscript{1} J. Mandal, \textit{Mass Copying in Secondary School Final Examinations}, (Calcutta: Department of Applied Psychology, University College of Science and Technology, Calcutta University and Eastern India Centre for Mass Communication Studies, Calcutta, 1978)
with mass copying by students in the final secondary examination with particular reference to their home and school conditions. The study used the system-analysis concept according to which the educational system was conceived to be consisting of three sub-systems, namely, student subsystem, faculty subsystem and administrative subsystem - the three subsystems being independent. It was established that students participating in mass copying differed from others who did not in respect of home and school conditions. The students who indulged in mass copying came from relatively poor socio-economic status, parental education being relatively poor, home educational environment unformulated, and facilities inadequate. The 'non-mass copying institutions' differed from the 'mass copying institutions' in respect of faculty subsystem, administrative subsystem and student subsystem.

3.6 Conclusion

If we try to weave the individual research testimonies, there emerges a picture of examinations in India that is incomplete, gappy and splashed with platitudes and futilities. Even though the first shot in educational research in India was fired before Independence and that too in the field of examinations, both the quantum and quality of research leaves much to be desired. Most of the research effort, especially
at the doctoral level, has been expended on internalities of examinations aiming at the improvement of tools and techniques of testing. But this is not unnatural. The first concern anywhere, as in India, would be to improve the process of examining. General-issues of socio-economic nature indeed belong to the second generation. A few of the institutional and individual projects did try, in a limited manner, to go into some socio-economic aspects covered under externalities. Some studies assessed the magnitude of failures at various stages while some others tried to investigate their aetiology. Wastage and stagnation attracted considerable research attention but investigation into the use of unfair means in examinations did not go beyond the general survey level. Moreover most of them have only tried to prove the obvious.

This at least is clear: there is some sort of a barrier in the form of functional questions that is yet to be crossed by researchers in examinations. The state of art indicates that the take off stage has come. The present inquiry intends to carry it a stage further by questioning the relevance of examinations on pedagogical, economic, political and sociological grounds, thereby raising issues which could be further looked into.