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STATEMENT OF THE PROBLEM

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HYPOTHESIS (ES)

RESEARCH METHODOLOGY

RESULTS & DISCUSSION

FINDINGS

RECOMMENDATIONS/SUGGESTIONS

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APPENDIX/ANNEXURE

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CONTRIBUTIONS TO BOOKS

 Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

JOURNAL AND OTHER ARTICLES

• Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

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CHALLENGES OF GAUGING PRODUCTIVITY IN TEACHING IN HIGHER EDUCATION: A STUDY

MADHAVI R
PHD. SCHOLAR & ASST. PROFESSOR
DEPARTMENT OF COMMERCE – PG STUDIES
SCHOOL OF COMMERCE STUDIES
JAIN UNIVERSITY
JAYANAGAR

DR. EASWARAN IYER
DEAN OF COMMERCE
JAIN UNIVERSITY
JAYANAGAR

DR. SHAILAJA SHASTRI
HEAD
DEPARTMENT OF PSYCHOLOGY
JAIN UNIVERSITY
JAYANAGAR

ABSTRACT

In a world led by results and strategies designed for the same, where does teaching stand? A manufacturing concern shows this with its world class products and improvising on the same from time to time. The enhanced quality from time to time reflects its improvements. The service industry is faced with a different set of challenges. Yet, they raise their benchmark to define productivity. If teaching is considered in particular for understanding productivity and its various nuances, what are the ideal parameters? Teaching is a profession which involves active participation of the student community and the teaching fraternity, synthesized with effective learning resources. The researchers design an operational definition for defining productivity in the typical context of teaching in higher education. In this humble research effort to explore the various challenges and probable suggestions to the given premise, the researchers build a quantitative tool and a qualitative appraisal model. Here, responses are collected through a data collection tool, at the grass root level through purposive sampling choosing teaching professionals from the higher education space. The results clearly indicate multi-layered challenges encountered and lack of clarity at various levels on various counts, apart from lack of standardization in the system, although the apex institute — University Grants Commission — lays down an elaborate protocol.

KEYWORDS

intangibility of teaching & learning, productivity, quantification, diverse tasks.

1. INTRODUCTION

eaching is an intangible service. Since ancient times, teaching has been identified to be a divine profession and was not inhabited by metrics and competition in the past. In the last decade, teaching in higher education has undergone sea change. Research has already uncovered that services have special features distinct from products. To state a simple few, in services, production and consumption happen simultaneously, while in tangible products, they are separated (Services Management, Jan 2007). Teaching is a participatory service, where the role of the teacher and the student need to be synthesized together, if the service needs to be delivered by the teacher and consumed by the student. This factor is resolved only in online teaching where the service can be produced at the convenience of the producer (teacher) and consumed at the convenience of the consumer (student) as technology enables recording in such a way it does not interfere with their lack of participation. However, in such a case, the interaction element is sacrificed compromising the very essence of the service. This research effort is therefore focused on regular face-to-face teaching in higher education.

Being an intangible service makes it challenging to define its role in its entirety and makes it hard to subject it to wholesome judgement. The nature of tasks aligned in teaching in higher education has grown to be diverse and is building on itself over a period of time. The Performance Based Appraisal System form (PBAS) as indicated by UGC is a testimony to such range of diverse roles and responsibilities an academician needs to comply in today's educational world. (UGC)

According to businessdictionary.com, productivity is defined as "A measure of efficiency of a person, machine, factory, system, etc., in converting inputs into useful outputs. Productivity is computed by dividing average output per period by the total costs incurred or resources (capital, energy, material, personnel) consumed in that period. Productivity is a critical determinant of cost efficiency". When all outputs and inputs are included in the productivity measure it is called total productivity. Outputs and inputs are defined in the total productivity measure as their economic values. The value of outputs minus the value of inputs is a measure of the income generated in a production process. It is a measure of total efficiency of a production process (Productivity Management - A Practical Handbook, 1998). Such definitions hold clarity in the manufacturing sector. Teaching, being distinctly different from manufacturing and even most other services, offers a platform to debate the concept of productivity offering a new shape to the concept. In the age of racing technology and rapid changes, without generalizing teaching as one among many services, when due interest and care are offered, how can one understand the concept of productivity? In the light of such questions, the research design may be laid out as follows:

2. REVIEW OF LITERATURE

Jack E. Triplett and Barry P. Bosworth present some measures of the growth in labor and multifactor productivity within the services industries (Bosworth, 2000) quoting the substantial disparities exist among productivity growth rates within the manufacturing sector and also within the nonmanufacturing sector. Mohammad S Owlia & Elaine M Aspinwall; University of Birmingham, UK; pitch TQM in higher education from customers' perspective to define quality in engineering education in higher education in particular (1998).

LAUREN MARIE CALIMERIS provides evidence on measuring teacher quality is extremely difficult in her work. (CALIMERIS, 2011)

The e-balanced scorecard (e-BSC) for measuring academic staff performance excellence By May Leen Yu & Suraya Hamid & Mohamad Taha Ijab and Hsaio Pei Soo focused on using a Balanced Score card through a pilot study to create a means of communication between lecturers and top management.

3. NEED FOR THE STUDY

The above studies focus on productivity in teaching in higher education from different places. This provides research gap that can be addressed by more research studies. Hence the need for the study is felt.

4. STATEMENT OF THE PROBLEM

The concept of productivity can be mathematically quantified in the manufacturing sector. The output input ratio brings out the numerical representation. However, in services, the core aspects of a job (along with the various related tasks) are intangible in nature. Services also are known for heterogeneity in application of their work, while manufacturing sector has promoted homogeneity. In a profession, such as teaching, defining and gauging productivity is a challenging task, as there are discretionary elements in the very nature of the job.

5. OBJECTIVES OF THE STUDY

- 1. To define productivity for a teaching faculty member in teaching in higher education.
- 2. To develop a quantitative and qualitative model of appraisal for the same.

6. HYPOTHESIS

Tasks of a teaching profession in higher education cannot be quantified

7. OPERATIONAL DEFINITIONS

Higher Education: UG and PG level of college education and above.

Academician: A teaching professional/member of an educational institution in higher education

8. RESEARCH METHODOLOGY

(a) Type of research: Both, field research and library research were undertaken. The objectives were first analyzed through field research and then elaborated through library research.

(b) Tool: A Semi-Structured Questionnaire was drafted, keeping in mind the objectives of the study as listed above.

(c) Sample Design:

- Purposive Sampling Method is adopted for the study. Here, the sample units are chosen primarily on the basis of the convenience of the investigator and willingness of the respondents to participate in the study undertaken.
- > The study is relevant to all teaching professionals in higher education in general. Such professionals are spread across the length and breadth of the country. As the population size is huge and has heterogeneous features, purposive sampling method had to be resorted to.
- > The sample size of fifty respondents who consented for the study are teaching faculty members in higher education.

(d) Profiles of the respondents:

- A sample size of **fifty** respondents are in the age group of 23 60 years.
- Men and women were included without preference to either of them.
- > As the subject is confined to teaching, the respondents chosen were confined to teaching professional in higher education.
- > Online teaching, visiting faculty members, etc. were not included in this study.

(e) Collecting data

- Each respondent was asked to answer the questions in their own words. Initially, rapport was established with the respondent and he/she was made aware that they were part of research work and his/her co-operation to the fullest extent would make the research meaningful.
- > The respondent was asked to give his/her opinion freely. Any doubts raised by the respondents were clarified so as to gain honest answers.
- In certain cases, the questionnaire was translated into the vernacular languages so as to facilitate right understanding of the concept.
- > Apart from the interview method; survey method, observation methods, group discussion method and experiences have been employed to collect and analyse data.

(f) Method of analysis:

- MS word, Excel and Power point applications have been used to tabulate and present the data.
- Descriptive analysis including bar charts, percentages along with Large Sample Testing is used to present and analyse the data.

9. RESULTS & DISCUSSION

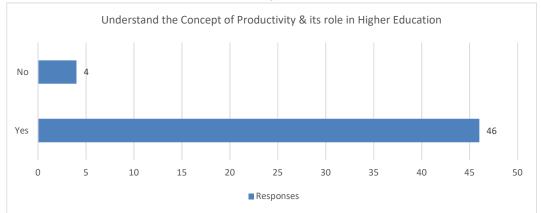
The revelations from primary data are as follows:

1. When asked if the respondents understand the concept of productivity, except two respondents, all said 'yes'.

TABLE 1

SI. No	Understand concept of productivity	Responses	% values	
1	Yes	46	92%	
2	No	04	8%	
	Total	50	100	
SI. No	Understand concept of productivity in Higher Education	Responses	% values	
Sl. No	Understand concept of productivity in Higher Education Yes	Responses 46	% values 92%	
Sl. No 1 2	, , , ,	•		

FIG. 1



- 2. When asked to explain the same, the following was discovered (most striking responses are listed, ignoring repetitions):
- Productivity means getting back after investing. For eg. Use of natural resources to get useful things done. Use of sunlight in getting hot water, cooking etc. through solar powered equipment.
- Doing quality work with efficient utilisation of resources and time
- Efficiently completing the task (much before time) without compromising the quality.
- With reference to education productivity is nothing but delivering the knowledge content to students with the effective use of pedagogy provided to a faculty
- Production per unit of factor of production
- Personal capability to utilize talents, skills, knowledge etc. to achieve the desired result
- Productivity is ratio of input to output to explain efficiency
- 3. All teaching respondents said the concept of 'productivity', often referred to as performance is applicable even to a teacher in higher education, except 4/50. When asked how is the concept applicable to a teacher in higher education; the following was revealed (striking responses presented verbatim and repetitive ones are avoided):
- It's related to how information delivered by the academician is understood by the student. If understanding is more in students it means high level of productivity is gained by the lecture/teaching.
- Teaching different subjects with activities or projects by utilizing the resources and time efficiently and effectively.
- You teach some theoretical aspects to student and you also tell them about the practical use of the concept taught.
- Productivity implies the use of those concepts in day to day practice. As a clinical biochemist we teach the student a bed side diagnostic test to detect diabetes. If the student applies this knowledge in rural area where there are no sophisticated labs, it will benefit the patient and the community at large. Use of bed side test at low cost. Productivity at low cost and more efficiency is what it is.
- How you teach, how much time you take to finish the syllabus, do students understand, your students pass percentage, etc.
- 4. The respondents who felt productivity is not applicable in teaching, said:
- Knowledge cannot be measured through productivity. Productivity cannot be measured either through teacher or student alone, as it depends upon the receiver of the knowledge.
- Productivity is a very vague term to define the efficiency of a teacher.
- 5. When asked to choose the best way determining performance of a teaching professional in higher education (where multiple choices were allowed), none of the respondents could limit this response to any single criterion and strongly felt it has to be considered on multiple parameters as inherent and typical to the role and responsibilities of an academician in higher education. Teacher respondents opined that the Performance Based Appraisal System (PBAS), Systematic Student Feedback, Superior Feedback, student pass percentage, their overall performance are some very important parameters.
- 6. When asked if the diverse tasks of a teaching professional are clearly included and acknowledged in the present system, all respondents disagreed, except 5/50 respondents.

TABLE 2

Sl. No.	Inclusion of diverse tasks in productivity appraisal	Responses	% values
1	Yes	05	10%
2	No	45	90%
	Total	50	100%

- 7. When asked, if the present system of performance appraisal addressed the specific needs of the diverse disciplines that encompass in higher education; all respondents disagreed and felt, there should be higher degree of customization developed and allowed, as many details are generalized, in an effort to standardize which is not applicable in a service such as teaching in higher education. To substantiate the point, respondents went on to explain that the needs and nuances of teaching learning can strongly vary across disciplines and this also considerably true within disciplines many times.
- 8. When addressing 'what challenges are faced in gauging productivity in higher education for teaching professionals?'; the following responses were derived through discussions and questionnaire:
- Discretionary aspects of a job; for ex: higher efficiency in teaching is not particularly recorded in PBAS, the higher student-teacher ratio is a neglected challenge for example often commerce colleges have larger student strength than their counterpart disciplines causing greater challenges in classroom management and increase in regularly expected work pressure to cater to such large audiences in the classrooms. This increases related aspects of the job such as increased interactions in the classroom, challenges in designing and administering internal assessment activities, lack of individual attention and focus, etc. are some prominent points noted amongst others. When the student-teacher ratio is small such challenges are automatically curbed.
- No clarity of identifying and measuring the performance. This is also true while aggregating and reporting work completed. For example, the relative efficiency in teaching tasks alone is not documented beyond the systematic student feedback system. In spite of establishing such a practice, the implementation part is to be critically appraised to check if the sanctity is upheld.
- It is difficult to assess the performance in teaching because too many components are involved in teaching and performance in teaching is a vague concept
- Challenges such as biased superior feedback, competition and hierarchy are prevailing obstacles
- Issues related to biased attitude of students displayed in student feedback, old methodology of appraisal system, etc. defeat the purpose of appraisal.
- Concentrating on only one parameter like student feedback based appraisals may lead to biases in opinion.
- It is mainly in terms of maintaining discipline and strictness. Now a day, students are treated as customers and in the view of providing all the facilities. The appraisal system is ignoring the importance of teacher strictness. It is observed that higher the level of strictness, exhibited by the teacher, lower is the rating of the faculty by the students.

- Efficient faculty cannot be measured only through result based system. But today result has been given more importance. Enough time should be given/allotted for research publications. More time on research would improve the performance of the teacher in class.
- Responsibilities are diverse and judging parameters are not very clear
- During performance appraisal whether the person has put in that many hours of work or not, he is entitled to show it in the appraisal form. This is a major drawback as someone is looking at quantity rather than quality of work.
- The following comment is worth noting by a respondent "Performance is not always in your control, 80 students in a class control it".
- The PBAS, which is a prominent tool used according to the instructions of UGC, focusses more on Research and Consultancy than teaching. Is teaching lesser than research? If research is so important, a teaching professional should be judged for their contribution after ensuring the necessary infrastructure is in place and it is built into one's time table schedule where time is particularly allotted for the same. In government colleges, faculty members are given a sabbatical (with full pay) to pursue doctoral studies. In many private institutions, the pressure exists to enroll into research without the corresponding support. Yet, such private institutions expect the same PBAS form to be implemented in all its sanctity, which will give lop-sided view of one's performance.

To explore the knowledge seekers point of view, the students of PG were asked in a GD on the same concept as they are one of the most important consumers of a teaching professional's services and the same is presented below:

10. FINDINGS FROM GD FROM THE STUDENT COMMUNITY

- All the student participants are from M' Com final year and found it difficult to understand and interpret the concept of productivity in teaching.
- In general, students explained the meaning as output/input ratio, which is applicable in the manufacturing sector and when the discussion moved towards applying it to teaching service, they unanimously felt, it cannot be used so.
- Students opined that the Systematic Student Feedback, Analysis of Semester End Results and interaction with students can provide useful insights to understand the performance of a teaching professional.
- At the same time, they also expressed difficulty in quantifying the concept and felt it has to be analysed according to the merit of each case.

This also brings out the challenge of intangibility and need for re-looking into the PBAS which is close-ended and needs clarity in its rationality.

11. FINDINGS

- 1. Productivity cannot be limited to pass percentage or any one criterion and there has to be wholesome approach towards the same
- 2. Problems exist at various levels in gauging productivity for an academician
- 3. As exploring the idea of quantification is listed as one of the objectives of this study, it is understood that quantifying is not considered suitable by the respondents and using a rating scale is a preferred option.

After scrutinizing the responses, productivity in higher education may be defined as:

"The composite role of a teaching professional in higher education contributing towards the various task sets – Teaching and Exam related duties, Administrative duties, Academic Life Enrichment and Research & Consultancy – so as to contribute towards the overall welfare of the diverse stakeholders – Students, Management, peers and society"

12. LARGE SAMPLE TESTING RESULTS

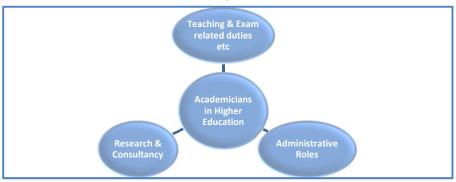
The Null Hypothesis is accepted at 5% level of significance and one may say that "Tasks of a teaching profession in higher education cannot be quantified"

13. RECOMMENDATIONS/SUGGESTIONS

Some of the suggestions given by the respondents are presented here:

- Include teachers in their appraisal. Often teachers are a passive part of the process. This is challenging and yet required as teaching is a people processing job, offering increased dynamism to the entire profile of the job.
- Since high importance is given to the number of classes taken, number of publications/ presentations, indicators which can help in assessing quality of work ought to be included.
- Training sessions need to be held for faculty members to explain various judging parameters and how and why they are applicable to teaching professionals in higher education.
- Everyday work should be tracked online. Suppose, a regular working day consists of 8 hours, how much time is devoted for classes, how much for research, how much for breaks etc. Software can be used for this. At the end of every session, teachers' cumulative performance can be measured like student's feedback, colleague feedback, number of publication in refereed journal with impact factor, number of paper presented in conferences etc.
- Faculty performance appraisal should be based on the content delivered about the subject in the class and also the quantum of knowledge of that faculty in a given area of specialization
- Make it more objective than subjective
- A qualitative Self-appraisal tool needs to exist, for important things beyond just keeping score about work accomplished. The zeal required for a teaching job is never recorded.
- The emotional turmoil one undergoes is hardly quantifiable and many other aspects exist in this regard. Here again the qualitative approach can be applied.
- The no. of classes taken is recorded. How well they are taken, is not considered in PBAS and student feedback works towards this. But how well is such feedback taken? etc. are the concerns to be brainstormed upon.

The researchers have developed a "Three Parameter Model – A Quantitative Approach" and "A Qualitative Appraisal Model: An Insight into the Self" after considering the multiple roles and responsibilities, concerns presented by respondents, etc. This model also keeps up with the qualitative elements that exist in teaching. The three parameters recommend listing of specific tasks aligned to each faculty member beyond teaching such as – organizing fests, organizing conferences of FDPs – Faculty Development Programmes, etc. and later rating the same according to the status of completion and quality of work executed to bring in transparency. The rating scale is suggested to be used according to standards set for each parameter. Standards need to be set according to the needs of the discipline and the experience / seniority of the teaching professionals. At the same time, the contribution can be considered as primary for the teaching parameter and for others it can be considered at varying levels towards the remaining roles.



The 3 Parameter Model - A Quantitative Approach showcasing the split of roles for an academician

Thus, it may be built in the following way:

"The Three Parameter Model – A Quantitative Approach"

TABLE 3

Sl. No.	Parameters (All tasks may be briefly described under relevant sub-heads to be approved by the HOD/HOI)	Rating Scale
1	Teaching & Exam related duties (Classroom teaching compliance w r t subjects allotted and no. of classes)	12345
2	Administrative Roles (Coordination duties, documentation work, Academic Life Enrichment, contribution towards co-curricular and extra-curricular activities) Description of the roles and responsibilities complied with:	12345
3	Research and Consultancy: (Paper presentations, publications, workshop participation, guest lectures delivered, research guidance provided, organization of such events, etc.)	12345

It is also observed that one person may show a dominant role in Academic Life Enrichment or an administrative role and need not equally contribute towards all the parameters consistently. In such situations, it may be advised to identify one's roles and mark the appraisal only on the roles allotted and not make it compulsory to indulge everybody on all parameters.

Examples are citied below from real life experiences.

Self-appraisal and superior appraisal

At the same time the form may be used for self-appraisal as well as superior appraisal, at the discretion of the departments involved.

A detailed description of the roles fulfilled must be allowed and relevant documentary evidence may be attached for the same. The need for description arises as the nature of tasks can be diverse under each subhead.

The following examples are worth mentioning as received from primary sources:

CALABLE OF A CELE ADDRAGAL TOOL

- If a faculty member has guided a student team to win an inter-collegiate case study competition held by a world renowned body; where will this be documented and how will it be included in performance appraisal, especially when this takes substantial time from their working schedule and beyond?
- If a team of faculty members have incessantly worked towards designing and delivering the needs of intra and inter-collegiate fests for a large audience and a department whose total student strength runs into thousands, it is visibly large amount of work that surpasses one's official hours of work. How should this be reflected in the attempt to gauge such teacher's productivity?
- If a team of faculty members works on compiling the annual report for the college/institution, where will this be documented and how will it be accounted for their contribution?
- If a faculty member works on developing the syllabus, course material, conducts subject meetings for the benefit of the other faculty members, contributes towards digital lectures, where will this be documented and how will it be accounted for their contribution?

These examples present the nature of diversity and this is only a glimpse of the ice-berg. Such challenges can typically vary according to the discipline and the intensity of the roles assumed. For example, a doctor who is into teaching majorly can have concerns of his/her own.

The needs of an engineering college faculty member can be different from their counterparts in commerce and management disciplines.

"A Qualitative Approach: A qualitative assessment of one's journey in the process needs to be acknowledged. This is felt by every individual at the grass root level and can be introduced as a personal indicative instrument which can serve as a tool kit to understand their emotional journey from lack of awareness to achievement at various levels.

The following is a sample tool designed to serve such needs:

"A Qualitative Appraisal Model: An Insight into the Self"

TARIF 4

SAMPLE OF A SELF-APPRAISAL TOOL – QUALITATIVE ANALYSIS						
Name:	Date of joining:					
Age:	Total Experience:					
Department:						
Questions related to self:						
What motivates me the most on job?						
What are my strengths and weaknesses?						
Questions related to job:						
Which is the most challenging aspect I faced this semester?						
What have I done to work towards tackling the challenges listed above?						
Questions related to co-workers:						
Am I able to get-along with my co-workers?						
What is the best skill I have learnt by working in this team?						
Questions related to employer:						
Am I able to adhere to what is expected by my HOD/HOI?						
Am I able to communicate my concerns to my superior/HOD/HOI?						
Questions related to the Organisation:						
What is the vision of this organisation?						
Is that translated into the tasks my job holds?						
Any other:	•					
Disclaimer: Ideas conceived sincerely and worked upon consistently can lea	d to awesome growth					

This tool is not expected to be submitted to any authorities for further scrutiny. It is meant for the individual professional to draw insights from their experience to deliberate on the listed items, add to them and learn from the overall experience. This also serves to address the happenings of the informal environment and the faculty member gets a guiding question from this to be answered by them for their own sake.

When done consistently, it has long-run benefits in understanding what it takes to translate vision into real time work.

14. LIMITATIONS OF THE STUDY

- a. The findings and suggestions are limited by the opinions and knowledge of the respondents.
- b. An interpretation of this study is based on the assumption that the respondents have provided true and correct information.
- c. The study has limitations w r t time, place and resources

15. SCOPE FOR FURTHER RESEARCH

- Such research may be conducted at a large scale to understand what challenges are perceived and what solutions are prescribed in the teaching profession's appraisal process.
- In depth research can be conducted separately for each of the disciplines to understand their diverse roles, unique challenges, etc.

REFERENCES

- 1. Bosworth, J. E. (2000). Productivity in the Services Sector. Boston, Mass.: American Economic Association.
- 2. CALIMERIS, L. M. (2011). UNDERSTANDING TEACHERS: SORTING, PRODUCTIVITY, AND ATTRITION IN THE PUBLIC SCHOOL SYSTEM. University of Colorodo: ProQuest.

OUESTIONNAIRE

- 3. J. Prokopenko (1980), Productivity Management A Practical Handbook (pp. 3-6). International Labour Office, Geneva.
- 4. N, V. V. (Jan 2007). In V. V. N, Services Management (pp. 10-11). Bangalore: Himalaya Publishers.

WEBSITES

- 5. en.wikipedia.org/wiki/Productivity
- 5. UGC. (n.d.). Retrieved from ugc.ac.in: https://www.google.co.in/?gfe_rd=cr&ei=CFb1VtI58MjwB8LhtrgL#q=ugc+pbas+proforma
- 7. www.businessdictionary.com/definition/productivity.html
- www.google.co.in/?gfe_rd=cr&ei=CFb1VtI58MjwB8LhtrgL#q=ugc+pbas+proforma

APPENDIX

DATA COLLECTION TOOL

				QUL	JIIOINIAIILE					
1.	Do you understand the meaning of	the term 'l	Productivity'?	Yes	No					
2.	If yes, what is it, please explain:				_					
3.	Is it applicable in teaching?	Yes	No	Maybe						
4.	If yes, how?									
5.	If no, why not?									
6.	What is the best way of determining	g performa	nce of a teach	ning profess	ional in higher edu	cation? (Tick a	s many as a	applicable)		
a. Pe	erformance Based Appraisal System (PBAS)	b. System	atic Studen	Feedback	c. Superior Fe	edback	d. Pass	percentage	
e. Aı	ny other, pls specify:			_						
7.	Do you think the diverse tasks of a t	eaching pr	rofessional are	clearly incl	uded and acknowle	edged in the pi	esent syste	em? Yes	No	Maybe
8.	What hurdles are faced in the process of Performance Appraisal with special reference to Teaching in higher education?									
9.	Is the present PBAS aligned to the s	pecific nee	ds of teaching	g profession	als across various d	disciplines?	Yes	No	Not sure	
10.	What suggestions do you offer in th	is regard?								
ABO	OUT YOURSELF									
Nam	ne (optional):	_ Age:		Gender: N	lale/Female					

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