

Course on Outcome based Pedagogic Principles for Effective Teaching
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Module 4
Lecture No 19
Lecture 19: Good Teaching Attribute

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Good Teaching Attributes

So let us start the lectures on Good Teaching Attributes, ok. The primary objective of this lecture is that the idea is came from two things. One is can we measure good teachers that means which is required by every student. How do you measure a good teacher? There are somebody said this is a good teacher, somebody sees a good teachers. So how do you measure the good teachers?.

Next one is that can if I able to measures the good teacher can I able to produce good teachers or can I train the new comers to becomes a good teachers. So this is the two main objective of this research. So if you see in normal university practices there is a student evaluation about the teachers form and everything is there. But if you consider nobody believesthe result which is come out from the student's evaluation about the teachers is reliable and validate.

This is the problem many cases. If you search the literature then a lot of research is going on how do I measures the good teachers? Although in my pedagogy lecture I said nowadays specially in higher education teaching is not only delivering the content, teaching is different. So we said do not deliver the content only in the class. Now if I analyze what is good teaching and how can I

measures the good teachers, you find some of the points also revealed that teaching is some kinds of a something else.

So first objective is that I want to measure the quality of the teacher, second objective is that if I want if I able to measure the good teachers can I produce good teachers, ok. So anything if I want to measures if I am everything if I want to measure something I require certain parameter on respect I can measure the things this is good, this is bad based on those parameters. Without parameters I cannot quantify this is good and this is bad.

I may be express my assumption or my perception about the things this is good and this is bad. If I ask why you said this is good and why you said this is bad then I require some parameter based on which I say this is good and this is bad. So what are the parameter? It is nothing but the attributes. So if I say good teaching attributes, can I do a serious research to find out what are the attributes for becomes a good teachers?

On the other hand if I reverse side if I say suppose I know year after year the person X is a good teacher. Can I measure with respect to some attributes what he or she has done in the class with respect to certain parameter so that he becomes a good teacher. Once I know those parameters she dancing in the class, she changing the voice all kinds of parameters if I know and once I know those are the parameters are correlate to becomes a good teacher to declare his or him or her as a good teachers those are the parameters are correlate then I can say yes those are the attributes 1, 2, 3, 4 are the attributes to become a good teacher.

If those attributes value are very high then he or she becomes a good teacher. Now in the second side once I know that then can I this evidence I can transfer to the newcomers teachers who are coming in the recent in this teaching field. Those are the point to become point has to be practices to become a good teacher. So I can train the teachers how to become good teachers.

I am not going by this philosophy the good teachers are born, good teachers cannot be produced. If that is the then there is no need of science. So idea is that I have to study what are the attributes for good teaching, detailed study on the attributes, there are lot of research has been done on this area, many university, many years, throughout the many years to find out the attribute which are producing it or which can make a teacher as a good teachers.

And once they know those are the attributes, can I ask that newcomers teacher to practice those attributes to become a good teacher. Because people are saying that in in the teaching community the numbers of good teachers are very few. But I have to find out what are the parameters to produce a good teacher. And even I cannot may not be produce a very high quality good teacher but at least I can say yes, if you practice those are the points your teaching quality is increases.

That is also a valid achievement. So there is a lot of research is done in abroad, unfortunately in India we do not have that systematical study the attributes of good teaching. Many universities, many institutes have designed and teacher evaluation question where they collect the feedback. Suppose somebody said I my teacher feedback is 4.5 by I does not know what is the correlation between that rating with my teaching attributes and I do not know vice versa then somebody said that with teacher feedback is nothing but a students are copying from somewhere, they are doing some programing to provide the feedback.

So the data and feedback does not have any valid conclusion. So I have to design that such feedback system scientifically such as the data which will be collected from the student can be has a valid feedback it is not to assign a grade to the teachers. It is for the teachers what are the lacuna, what are the attributes he lacking to becomes a good teacher. So feedback of the two student for the teachers is not for defined this teacher is 4.5 ranking teacher. This teacher is 5 ranking teacher.

This is not the purpose for the student feedback. Purpose is that to collect the feedback with respect to certain attributes which is measurable that those are the attributes which is measurable and find out the valid conclusion about those attributes. Suppose as a teacher A does not have attribute A and B high score, then I can ask the teacher you do not have this attribute or this attribute high score, try to practice it. Ok?

So that that means I helping the teachers to becomes a good teachers. To do that I have to know which are the attribute and which are the most important attributes. If I have to design a questionnaire and if I design a 200 questions nobody will give the answer. So I have to design a scientifically design a questionnaire based on which I can say ok this attribute may be related to this characteristic. So this is very important so keep it.

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There is a lot of research if you go through these slides, there is a two books names I have mentioned in the slides. Book 1 and book 2, if you go through these 2 books you find there is lot of research has been done to find out the attributes of good teaching or attributes of scholarship teaching. So it is in the higher education some they low inference behavior teaching behavior so I will come on that low inference and high inference behavior and scholarship teaching attributes.

So how do you measure the good teachers? See of course student learning, main objective is that whether the student has learned or not. That means if I say if I taught a multi section class and this is section is taken by different teachers, if some and the students are randomly distributed among the section it is not that good student is one section and bad student is one section. Let us randomly distributed among the classes and the student outcome is the marks then. So student performance the measurement of the good teachers one.

If it is student performance is important. And assuming the evaluation process is valid, reliable and scientific and whatever the question paper is make is also valid, reliable then for a multi section class the result of the students might reflect the good teaching behavior, good teachers, ok this teacher is a good teacher is one of the one of the way to find out the good teachers. Other way that if you ask the students who is the good teacher everybody even including me also if I close my eyes and ask who is the good teacher in my life I have one or two names.

Ok those are the teachers are good teachers, may not be I have done I get 90 percent on their subjects but I believe that those teachers are good teachers. That is the teachers who influence me to take the further study on the same subject can be a good teacher who motivate me. So one is the student performance and another is the student motivation.

So if I want to find out the good teacher attributes I have to know who are the good teachers and then some attributes I will write down and I will take a feedback based on those attributes what students, what that teacher is doing in the class that attributes will reflect and then I know ok this teacher student say the teacher X is good teacher and teachers A is doing these attributes, this attribute, this attribute, this attribute in the class that is why he becomes a good teacher I am assuming.

Then I can find out the correlation of those attributes with the student performance is one. If the student performance declares the teacher is a good teacher then I said the attribute one what is the correlation with the student performance of the attribute one with the student performance. That means a student gets 9 CGPA and I take a question was and ask the question ask the MOS scoring of question number attributes number one then you will say ok I will give 4.

Then I ask another student, I get back and then I find out the student performance and their attribute value what is the correlation. The attributes which are more correlate with the performance are the important attributes, the attributes which are less correlate with the student performance are the less important attributes. So while I design a questionnaire where I can say initial final questionnaire I can say those are the attributes which are very important and those are the attributes are less important.

So I can discard the less important attributes and take only the high important attributes. And then can (kind) find out the feedback and then give the feedback to the teachers all teachers that those are the attributes which are valid for becomes a good teacher but while your feedback is not so high on those attributes try to make those attributes very high or practice those attributes to become a good teachers, ok.

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Teacher Effectiveness Research –

- ▣ **Student Learning – Mean Student Performance on a common final exam in a multi-section course.**
- ▣ **Student motivation for further learning – frequency of students enrolling in advanced courses in the teacher’s area of study**
- ▣ **Student Instructional ratings**
 - most frequently used criteria:
Provide both student satisfaction with instruction and Indirect”proxy” measure of outcome variables such as student learning and student motivation.

So I have to study the teacher effectiveness, I will come this in later on.

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Correlation between specific evaluation of Instructional Dimensions and student achievement

<u>Instructional Dimension</u>	<u>Average r</u>	
Teacher Preparation: course Organization	0.57	1
Clarity	0.56	2
Perceived outcome of instruction	0.46	3
Stimulation of interest in course/subject	0.38	4
Encouragement of questions/discussions	0.36	5
.....		
Teachers enthusiasm in the subject	0.27	11

5 Point scale:: 1-Poor, 2-Below Average, 3-Good, 4-Very Good, 5-Outstanding				
#	Question Text	Response		
		Mean	Median	C
I .1	Knowledge of the teacher in the subject area	4.72	5.0	
I .2	Clarification of the objectives of the course	4.64	5.0	
I .3	Stimulation of interest in the subject area	4.59	5.0	
I .4	Promotion of analytical/logical thinking	4.64	5.0	
I .5	Clarity of presentation	4.56	5.0	
I .6	Inclusion of recent developments with real life examples	4.59	5.0	
I .7	Encouraging questions in class	4.67	5.0	
I .8	Challenging tests	4.54	5.0	
I .9	Quality of evaluation	4.46	5.0	
I .10	Prompt and detailed feedback	4.38	5.0	
I .11	Help in the course work available outside the class	4.38	5.0	
I .12	Friendly and helpful towards students	4.54	5.0	
I .13	Enthusiasm of the teacher towards the subject	4.74	5.0	
I .14	Participation/academic interaction during class	4.67	5.0	
I .15	Quality of assignments and tutorials	4.49	5.0	
I .16	Number of assignments / tutorials (1=Too fast/too slow/uneven 5=Just right)	4.46	5.0	
I .17	Pace / speed of teaching (1=Too fast/too slow/uneven 5=Just right)	4.56	5.0	
II.1	Rating the course structure	4.35	5.0	
II.2	Registered Students academic effort in studying the course	4.03	4.0	
II.3	Overall rating of the teacher	4.70	5.0	

There is a several study exist in different literature, I named the two books. Based on the two books, I can say there is some attributes which is the higher attributes. Means that course organization, clarity, perceived out outcome of instruction, simulation of interest course subject, encouragement of question and discussion and teacher enthusiasm.

So all are I have if you see here also we have given the all are higher attributes, higher level attributes, what do you mean by higher level attributes? I say the clarity these are attributes, what do you mean by clarity? So clarity is in higher attributes. I can say let us the human face, your face is good, your face is bad. So face is an attribute but why I say this face is good and this face is bad, may be based on some parameter.

So I can say my face is define by my eyes, my skin tone, my nose, my eyebrows, all are the lower attributes of the face. So face is a higher attribute, this face is good, if I told you why you said this face is good, you may say the attributes number one eyes, nose, mouth, skin tone, eyebrows all are one one one attributes. Then you can find out which attribute contribute more to declare the face is good.

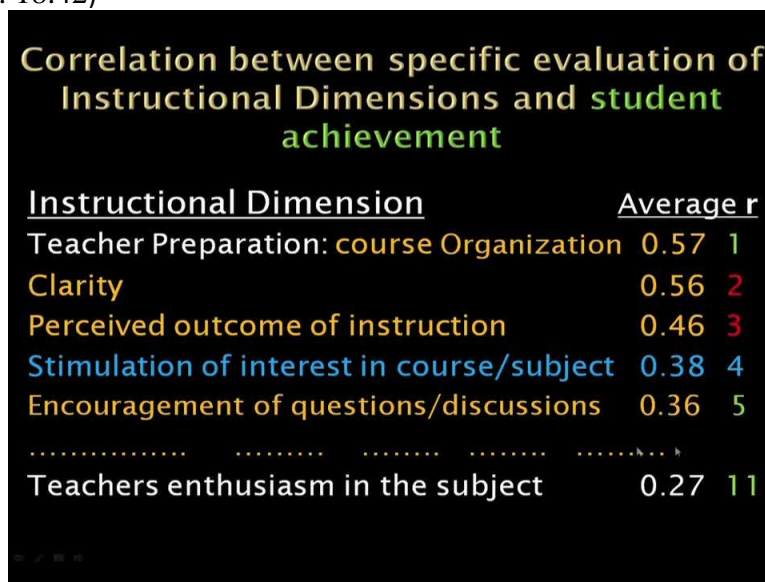
Then I can say although there is a several attributes exists on the face, those are the attributes which are more important to measure which face are good and bad. Similarly here also course organization is in higher level attribute. So if I want to do a research that I have to find out what

do you mean by course organization. Then course organization has to be brought in several other attributes which is called low inference attributes or lower level attributes.

And which is contribute to the higher level attribute course organization and course organization is directly can be related to the teachers behavior. So teachers attributes has two parts, one is I define some higher level attributes and under the each higher level attributes there is some lower level attributes by which I can measure that higher level attribute is ok, ok.

So now if I take the correlation, this is study based on those two books. This is not based on the data of Indian students. So if I say the correlation between the pacific value of instructional dimension those are the attribute and students achievement if I correlate the feedback of the students on all each and every course higher level attributes with the student achievement means students grade then I found this is the correlation.

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<u>Instructional Dimension</u>	<u>Average r</u>
Teacher Preparation: course Organization	0.57 1
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Stimulation of interest in course/subject	0.38 4
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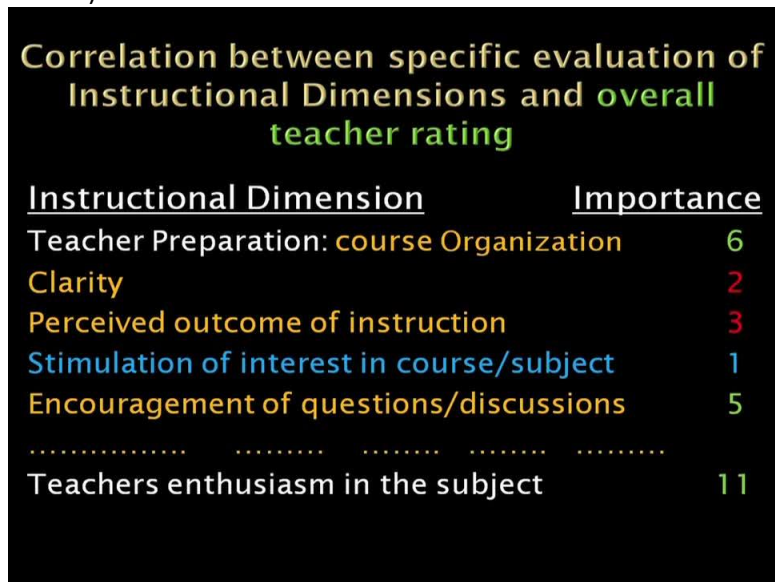
That means rank number one is course organization. Student say that I the student get higher marks or higher grade if the course is organized, if the course if the teaching is clarity in the teaching is very high. If the perceived outcome of the instruction is well defined, stimulation of interest is there, enthusiasm encouragement of question and discussion is there. So that is important 5. So rank number 1, 2, 3, 4, 5. So there is lot of higher level attributes is there. You can see and we can put them together and discuss that the lower one let us take that ok.

The attributes which is correlate correlation coefficient more than 0.25 take those then other attributes will be discarded. Then there is a teacher enthusiasm in the subject is 11. So there are lot of attributes are there, if you read those book you will get that those attributes name. I am explaining how they find out the correlation and what is the rank.

So what I have done let us clarify, they said that this teacher is a good teacher you know this teacher is a good teacher. Now he may say he may taught in a one section class. So now I ask the students what are the score that in mean opinion scoring 5 point or 3 point scale. What is the score of clarity about this teachers then I get the score from the students, I know the student grade or student percentage marks. Then I correlate student marks with their clarity grade and that correlation becomes 0.46 that means or 0.56 and then I got the position and find out the rank of the each and every attribute.

So these are ranking based on the student achievement or student performance.

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<u>Instructional Dimension</u>	<u>Importance</u>
Teacher Preparation: course Organization	6
Clarity	2
Perceived outcome of instruction	3
Stimulation of interest in course/subject	1
Encouragement of questions/discussions	5
.....
Teachers enthusiasm in the subject	11

Same feedback if I taken overall teacher rating that means same feedback if I taken after 3 or 4 years of teaching the subject means when student realize what the teacher has tauht is value what is the value in his personal life or his official life or how the teacher effect his life based on the motivation of the teachers then his perspective of the good teacher is changed.

That means if I collect the teachers feedback before after the examination or publishing the grade or after the examination there might be some parameter will be very high but it may not be true the same parameter will be high if I take the same feedback after 3 or 4 years. So if I take that feedback then it is found the stimulation of interest and course subjects become 1, rank 1.

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Correlation between specific evaluation of Instructional Dimensions and student achievement

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Clarity	0.56	2
Perceived outcome of instruction	0.46	3
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.....		
Teachers enthusiasm in the subject	0.27	11

So that means if I see previously when I correlate with the student achievement the stimulation of interest or motivation of by the teachers is rank 4. The motivational factors of the teacher is rank 4, but when they pass out in and practice their life, they found that teacher might I might be get **get** the small score or bad grade in that subject. But the teachers is motivate me enough to take the subject further to change my life.

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Correlation between specific evaluation of Instructional Dimensions and overall teacher rating

<u>Instructional Dimension</u>	<u>Importance</u>
Teacher Preparation: course Organization	6
Clarity	2
Perceived outcome of instruction	3
Stimulation of interest in course/subject	1
Encouragement of questions/discussions	5
.....
Teachers enthusiasm in the subject	11

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So that means the if I take the feedback from the pass out students then they said the primary factors for the good teachers is stimulation of interest in course or subject. But clarity perceived outcome 2 or 3 remain same. But if you see course organization was supposed to be number 1 is becomes number 6. Since I am not considering by the performance is the criteria that time that is why course organization does not matter to me.

Only clarity, perceived outcome of instruction, stimulation of interest become number 1. This is true for everybody if you just close your eyes and think who is the good teacher right now. You find that somebody who is motivate you is the good teacher, ok. So this can be done in our case also, this kind of study can be done in we do not have that systematic study but we have started that study in (()) (24:09) IIT Kharagpur one of the research scholar started this work to find out the parameters higher level and lower level both parameter correlations with the good teacher.

If you see why you should do that, today if you see that we cannot measure the quality of teachers. That is why the teaching the quality of teaching is not taken in consideration during the promotion also. If you see that during promotion time people will ask how many papers you have published, how many journals, how many do a research may be good researcher may not be a good teacher, a good teacher may not be a good researcher it is also possible.

So teaching is an art, so that means there is a no valid measurement criteria of teaching quality that is why we cannot quantify who is a good teacher on based on what purpose or all kinds of things. So that is why you cannot take that consideration, the teaching quality is one of the parameters for your promotion. And yes it is possible to measure the quality of teaching in scientifically and did if you study statistically validate my data collection and statistically validate that point then I can say or we can say those are the attribute which can produce good teachers, if the teachers are follows those attributes the students will say that this teacher is a good teacher.

So if I collect the feedback only of those attribute and statistically correlate then we will find that teachers if teachers follows this parameter teacher rank is very high then this teacher is a good teacher, scientifically validate study. So it is not arbitrary that ok this this teacher is good teacher based on the student performance, this teacher is good teacher. Some teacher giving a very easy grade so student say he is a good teacher.

But for that time, but if collect his opinion when he is passing out you never give the marks to the good teacher who give him the liberal grade. But they will give the marks to the teacher who is encourage them, who is motivate them to study the subject. So this what I said is this is not directly related to the pedagogy outcome based pedagogy but yes if you see the perceived outcome of instruction in both the study has rank 3.

That means if you do not define your goal of teaching then the teaching will be a very tough. So I can say if I define the goal of the teaching which is the most important parameter both the cases it is number 3 parameters to become a good teacher. Then if you see clarity is number 2, both the cases it is number 2. So that means clarity perceived outcome of the instructions very important point for good teaching.

Stimulation of interest is very important point for good teaching. So how do you stimulate, I have said in my pedagogy lectures that in our structures the course our be not only contain the coverage of the courses but also how you motivate the students to take your class, how you motivate the students about the subject so that they are motivate enough take the further reading of that subject very important parameter, ok.

So next class I will discuss about that what are the low inference parameter related to each of the attribute and they how they contribute to the teaching attribute, ok thank you.