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RESEARCH ARTICLE

DETERMINATION OF QUALITY OF PRIMARY, SECONDARY AND TERTIARY CLASSES BY THE APPLICATION OF FIACS MODEL

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ABSTRACT

The teaching process at the all level (Primary, Secondary and Tertiary) is too weak and our classroom environment is totally based on rote memorization. Moreover the role of teacher in making classroom climate conducive to improved learning is highly crucial. The classroom climate is built up by the pattern of interaction between the teacher and student verbal exchanges, asking questions and responding and reacting. The most important factor in a classroom situation is the interactions and exchanges initiated by the teacher and students. There is no provision for the development of intellectual and thinking skill among students who are given very little attention in the classroom. The teacher seems to be in a very dominating role in the class. They are the sole authority to manage the class room environment and maintain the quality teaching –learning processes. Based on a large-scale meta-analysis conducted by Walberg (1986), research indicates that the following seven factors are key elements to the effectiveness of teaching: engaged academic learning time, use of positive reinforcement, cooperative learning activities, positive class atmosphere, high-order questioning, cues and feedback, and use of advance organizers. Jackson (1968) reports that teachers are typically involved in more than 1,000 verbal exchanges with their student are every day. Unfortunately, the poorly structured classrooms quickly deteriorate into a vacuous waste of time (UNDP, 1997). In this context it is very essential to know the current status of quality of primary, secondary and tertiary level classes. Several technique has been designed to observe the teacher behavior and interaction pattern with the students in the class room. The term interaction is used in a general sense in this study, referring to any sort of interaction: student-student or teacher-student discussions, group discussions and any type of classroom participation. The focus on interaction was mainly based on the assumption that it leads to better learning, and will activate learner's competence (Malamah-Thomas, 1987). It is also maintained in literature that an increase in the amount of classroom interaction will help learners learn the target concept easily and quickly (Brock, 1986). Among those techniques one of the most popular techniques was used in this study known as Flander's interaction analysis category system (FIACS).

INTRODUCTION

The use of direct classroom observation over the last century has resulted in the accumulation of an impressive body of information about the nature of effective teaching (Brophy and Good, 1986; Good and Brophy, 2000). Types of classroom communication have a significant impact on student outcomes (Wang, Haertel and Walberg, 1993). Results of studies indicate that teachers' classroom verbal behaviour affect students' achievement (Good and Brophy, 2000). In fact, students' opportunity to participate actively in the classroom communication contributes to one of the most important predictors of student achievement (Berliner and Biddle, 1995). However, students' opportunity to participate in the classroom communication may vary with different verbal behaviors of teachers, with their achievement and attitude (Allington, 1991; Good and Weinstein, 1986), and gender (Sadker and Sadker, 1994; Houston Chronicle, 2001).

The entire classroom interaction was putted into three main sections: (a) Teacher Talk (b) students talk and (c) silence or confusion. Amidon and Powell (1967), Campbell and Barnes (1972), Kantowaski (1977), and Gorard (2000) used FIACS in their studies and discovered that teachers who were perceived as effective engaged largely in accepting students' feeling and ideas, used more praise and encouragement in their classroom communication. Flanders (1970) investigated the effects of FIACS feedback on the verbal behaviors of teachers found that teachers who received feedback differed significantly in their use of certain verbal behaviors from those who did not receive feedback. Teachers who received feedback were found to use more praise, accept and clarify student ideas more, use more

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indirect talk, use more positive reinforcement after teacher-initiated student talk, use less corrective feedback, criticize students less, ask more questions, use less lecture method, give fewer directions and less teacher-initiated talk. Studies by Kline and Sorge (1974), Younger, Warrington, and Williams (1999) have shown that even teachers who were not trained in the mechanics of interaction analysis will change their classroom verbal behaviors as a result of feedback from the interaction analysis. Findings from Swann and Graddol (1988), and Younger and Warrington (1996) have implied that teachers' classroom verbal behaviors could affect significantly primary pupils' achievement in mathematics and their attitude towards the subject.

Objective of the study

Flanders Interaction analysis is a system of classroom interaction analysis. The system in its, original and modification forms have been used extensively in classroom observation studies (Wragg 1999). It has also been used in the study of differences between expert and non-exert PBL tutors at university of Michigan Medical School (Davis *et al.,* 1992). It is a system for coding spontaneous verbal communication. The system ha~to^pi9mary uses , Firstly to provide evidence of difference in teaching patterns that distinguish one curriculum from another and secondly it can also provide data which may help to explain why differences in learning outcomes appeared or failed to appear. The system will be used for PEPBL study.

Keeping in view the importance of Flander Interaction Analysis (FIA), the following objectives were taken for the study.

1. To find out the effectiveness of Flander Interaction Analysis Category System (FIACS) in primary level.
2. To find out the effectiveness of Flander Interaction Analysis Category System (FIACS) in secondary level and higher secondary level.
3. To find out the effectiveness of Flander Interaction Analysis Category System (FIACS) in tertiary level.
4. To find out the I/D value of primary, secondary, higher secondary and tertiary level.
5. Every category of FICS analysis critically.

Hypothesis

$^0H_1$ => There is no effective difference of I/D values of different classes of primary level.
$^0H_2$ => There is no effective difference of I/D values of different classes of secondary level.
$^0H_3$ => There is no effective difference of I/D values of different classes of tertiary level.
H_1 => There will be different I/D value among primary secondary and tertiary level.
H_2=> I/D value be higher in case of science subjects.
H_3=> I/D value be lower in case of Bengali and English subjects.

MATERIALS AND METHODS

The researcher sat in the classroom for 45 minutes in the best position to hear and see the participants. At the end of each three second period, the researcher decided the category that best represented the communication of events. The researcher wrote down this category number while simultaneously assessing commutation in the next period. The researcher continued at the rate of 20 to 25 observations per minute. The researcher's notes were merely a sequence of numbers written in a column, top to bottom, so that the original sequences were preserved (Sampath *et al*., 2003) After through analysis of FIACS model it was decided to collect the information about 20 minutes in each level. The data was taken (as per the Table 4.1) by observing fourteen different classes setting in the best position of the classroom.

Table 4.1. Flander's Interaction Analysis Category System

Teacher-talk		1. Accepts Feeling. Accepts and clarifies an attitude or the feeling tone of a pupil in a non threatening manner
	Response	2. Praises or encourages. Praises or encourages pupil action or behavior. Jokes that release tension, but not at the expense of another individual; nodding head, etc. 3. Accepts or uses ideas of pupils. Clarify, building of developing ideas suggested by a pupil. Teachers' extensions of pupil ideas are included but as teacher brings more of his own ideas into play, shift to category five. 4. Asks questions. Asking a question about content or procedures; based on teacher ideas, with the intent that the pupil will answer 5. Lecturing. Giving facts or opinions about content or procedures; expressing his own ideas, giving his own explanation or citing an authority other than a pupil.
	Initiation	6. Giving directions. Directions, commands or orders to which a student is expected to comply 7. Criticizing or justifying authority. Statements intended to change pupil behavior from non acceptable to acceptable pattern; bawling someone out; stating why the teacher is doing what he is doing; extreme self-reference
Pupil talk	Response	8. Pupil talk- response. Talk by pupils in response to teacher. Teacher initiates the contact or solicits pupil statement or structures the situation. Freedom to express own ideas is limited
	Initiation	9. Pupil-talk- initiation. Talk by pupils that they initiate. Expressing own ideas; initiating a new topic; freedom to develop opinions and a line of though, like asking thoughtful questions; going beyond the existing structure.
Silence		10. Silence or confusion. Parses short periods of silence and periods of confusion in which communication cannot be understood by the observer.

The data was taken by observing the different classes setting in the classroom in the best position to have and see the participants. Total fourteen classes were observed considering primary, secondary and tertiary level. At the end of each 3-second period decide the category that best represents the communication of events just completed. Then author write down this category number while simultaneously assessing communication in the next period. It is continued at the rate or 20 to 25 observation per minute, keeping his tempo as steady as possible. Author generally maintain a sequence of numbers

written in a column, top bottom, so that the original sequence of events is preserved. Occasionally marginal notes are used to explain the class formation or any unusual circumstances. When there is a major change in class formation, the communication pattern or the subject under discussion, a double line is drawn and the time is indicated. As soon as the total observation was completed it retire to a robin and completes a general description on each separate activity period indicated by the double lines.

Ground rules to be observed: Before proceeding to observe the class and mark the observations in a coding chart, it is necessary to establish certain ground rules which become conventions for coding. Since classroom interaction is so complex, category definitions. Ground rules and their explanations can never completely cover all the classification problems that will arise. However, the following ground rules are helpful to decide the proper categorization of the interactive behaviors when the observer is faced with some difficulty.

1. When not certain in which of the two or more categories a statement belongs, choose the category that is numerically farther from the category five, with the exception of category ten.
2. If more than one category occurs during the three-second interval. Then all categories used in that interval are recorded. If no change occurs within three seconds, repeat the category numbers.
3. When the teacher calls on a child by name, the observer ordinarily records as 4.
4. If there is discernible period of silence, record one 10 for every 3 seconds of silence, laughter, board work, etc.
5. When the teacher repeats students' answer and if it is a correct answer, this is recorded as a 2. This tells the student that he has the right answer and therefore functions as praise.
6. Statements such as 'uh huh 'yes', 'all right', 'okay' which occur between two 9s are recorded as 2.
7. A teacher's joke which is not made at the expense of the children is a 2. if the joke makes fun of a child, then it is coded as a 7.
8. An 8 is recorded when several students respond in unison to a narrow question.

Matrix representation

To tabulate these observations in a 10 into 10 matrixes, the first step is to make sure that the entire series begins and ends with the same number. The convention is to add 10 to the beginning and end of the series, unless 10 is already present. So our earlier series now become 10,6,10,5,1,4,8,8,2,3,6,4,8,9,7,10. The observations are now entered in a 10 X 10 matrix so that the sum of column one equals the sum of row 2, etc. The numbers are tallied in the matrix one pair at a time. The column is used for the second number and the row is used for the second number and the row is used for the first number. The first pair in this case is 10-6; the tally is placed in row 10, column 6 cell. The second pair is 6-10, the tally this in row 6, column 10, cell; the third pair is 10-5; the fourth pair is 5-1; and so on, each pair overlaps with the next and the total number of observations. 'N' always will be tabulated by N-i tallies in the matrix. In this case, we started a series of sixteen numbers and the series produce 15 tallies in the matrix as shown on page 64.

Interpreting the matrix

No classroom interaction can be ever recreated. It is part of a moment in history: the purpose of interaction analysis is to preserve selected aspects of interaction through observation, encoding, tabulation and then decoding. Although several inferences can be drawn from the matrix. Let us discuss a few of them here.

The proportion of teacher talk, pupil talk, and silence or confusion

The proportion of tallies in columns 1, 2, 3, 4, 5, 6 and 7 columns 8, 9 and column 10 to the total tallies indicates how much the teacher talks, the student talks and the time spent in silence or confusion. After several years of observing, we anticipate and average of 68 per cent teacher talk, 20 per cent of pupil talk and 11 or 12 percent silence or confusion.

1. **The ratio between indirect influence and direct influence and direct influence (i/d) ratio:** the sum of column 1, 2, 4 divided by the sum of columns 5, 6, 7, gives this ration. If the ratio is 1 more than 1 the teacher is said to be indirect in his behavior. This ratio, therefore, shows whether a teacher is more direct or indirect in his teaching.
2. **The ratio between positive reinforcement and negative reinforcement (i/d ratio):** the sum of column 1, 2, 3, is to be divided by the sum of the columns 6, 7, if the ratio is more than 1 the teacher is said to be good.

Table 4.2. Matrix Representation

	1	2	3	4	5	6	7	8	9	10	Total
1				1							1
2	1										1
3						1					1
4							1	1			2
5	1										1
6				1						1	2
7										1	1
8		1						1		1	3
9							1				1
10					1	1					2
Total	1	1	1	2	1	2	2	2	1	2	15

3. **Student's participation ratio:** the sum of columns 8and 9 is to be divided by total sum. The answer will reveal how much the students have participated in the teaching-learning process.
4. **Steady state cells:** the following figure shows the 'steady state' cells along the diagonal from the upper left to the lower right. If these cells are heavily loaded it shows that the teacher remains in a particular category for more than three seconds.

The cell with the highest frequency of the entire matrix is typically the 5-5 cell which lies on this diagonal indicating that

the teacher frequently stay longer than 3 seconds when he provides information through lecture.

5. **Content cross cells:** the cells corresponding to the numbers 4 and 5 in the column and the row are known as content cross cells. If these cells are overloaded they reflect the teacher's emphasis on the subject-matter.

Table 4.3. Matrix Representation

	1	2	3	4	5	6	7	8	9	10	Total
1	1.1										
2		2.2									
3			3.3								
4				4.4							
5					5.5						
6						6.6					
7							7.7				
8								8.8			
9									9.9		
10										10.10	
Total											

6. **Constructive integration cells and vicious cells:** tow areas that are most sensitive to the positive and negative aspects of social skill is the teacher students relationship. This is shown in Figure 3.4

Area A might be called 'Constructive Integrative Cells' while area B is called "Vicious Cells'. The cells corresponding to numbers 1, 2, and 3 are known as vicious cells. These cells reveal the teacher's attention to problems of classroom management and control as distinct from concern with the subject-matter.

RESULTS AND DISCUSSION

PRIMARY LEVEL

BENGALI (CLASS 2)

After FIACS analysis it was found that only category 8 is maximum (42.018%, Table 5.1) that is student talk is highest (Table 5.1). The category 3 and 9 has zero percentage that is acceptances or used ideas of pupils and pupil talk initiation that means teacher has not considered the ideas of pupils. This indicates that the said class was highly teacher centers. Although it is not desirable in the teaching learning process. As it was the class of Bengali (language), probably the students were less interested or teacher was unable to motivate them. In general language classes, the teachers have primarily the role of providing negative feedback, a form of error correction, and positive feedback which shows teachers' approval or acceptance of students' production (Chaudron 1988), but these are not happening in this class. More over few categories like category 1, 7, and 10 having 7.04%, 1.173% and 5 respectively. The low percentage in category no-1 indicates that teacher was not considering the students feeling. Again category no-6 that is giving direction is moderately high (22.3%), Table 5.1) it indicates the class is highly teacher dominated. Teachers' questions "play a crucial role in language acquisition" Richards and Lockhart (1994).

HISTORY (CLASS III and IV)

Two history classes were observed from the class Three and class four. In history classes, the category no. 5 is maximum (64.43, Table 5.2) this high value indicates that teaching where teacher giving his own explanation, giving facts and opinion as out the subject matter.

Table 5.1 (Bengali)

Category	Number of Responses	Percentage	I/D
1	3	0.704	
2	40	9.389	
3	0	0	
4	29	6.807	48.05
5	53	12.441	
6	95	22.3	
7	5	1.173	
8	179	42.018	
9	0	0	
10	22	5.164	
Total	426		

Moreover, the teacher expressed his own ideas during lecture process. In this particular category indicate the category no 1 ,2, 3 and 4 are not well maintained by the teacher. Although it is not desirable for any class. Because asking question should be a vital tasks for making the class more effectively and more lively. Again from another history class (class-IV) it has been found that the category no 2 is higher than other category (Table 5.3). Although it is common observation that history class should be dominated by lecturing. That's why in both the history classes the value of the category 5 is very high. But I/D value is better in class IV in comparison to class III. Therefore, this result indicates that the teacher in higher classes well less accounted with lectures, giving direction and justify authority.

Table 5.2. Number of response, percentage and I/D value of History class (Class No 1)

Category	Number of Responce	Percentage	I/D
1	1	0.238	
2	2	.0477	
3	1	0.238	
4	27	6.443	
5	270	64.43	
6	23	5.489	10.544
7	1	0.238	
8	71	16.945	
9	11	2.625	
10	12	2.863	
Total	419		

Table 5.3. Number of response, percentage and I/D value of History class (Class No 2)

Category	Number of Response	Percentage	I/D
1	3	0.588	
2	17	3.333	
3	3	0.588	
4	36	7.058	
5	247	48.431	
6	50	9.803	18.730
7	18	3.529	
8	96	18.823	
9	30	5.882	
10	10	1.960	
Total	510		

SCIENCE (Class IV)

Among fourteen classes one science class is considered from primary levels (Table 5.4). The science class was observed in Bilpahari primary school. In class IV, the category no 5 is maximum (69.816). This high value indicates that teacher doing his own expressed, giving facts and opinion about the subject matter. Moreover the teacher expresses his own idea by lecture process. But it is true that in other all categories has very low response. The Category No. 2 indicates to praise or encourage pupil action or behavior. Again teacher is unable to motivate the students. The category No. 7 indicates to criticizing or justifying authority. In this class the percentage of pupil talk is the sum of category 8 and 9 (4.461 + 0.787 = 5.248). The I/D value of this class is 9.818. It is much lower than Bengali and History. This class is teacher dominated and student co-operation is not well. The class is not effective class because interaction of this class is low.

Table 5.4. Number of response, percentage and I/D value of Science class (Class No 1)

Category	Number of Responce	Percentage	I/D
1	3	0.787	
2	0	0	
3	2	0.524	
4	12	3.149	
5	266	69.816	
6	9	2.360	9.818
7	0	0	
8	17	4.461	
9	3	0.787	
10	69	18.110	
Total	381		

MATHEMATICS (CLASS IV)

In the mathematics classes was observed in Ramanogar Primary School and subsequently analysed through FIAS model. From the analysis it was found that maximum percentage in category No.5 (36.607%) and followed by category No. 8(24.532%) (Table 5.5). The I/D value is only 22.023.

Table 5.5. Number of response, percentage and I/D value of Mathematic class (Class No 1)

Category	Number of Responce	Percentage	I/D
1	1	0.297	
2	5	1.49	
3	4	1.19	
4	27	8.035	
5	123	36.607	
6	42	12.5	22.023
7	3	0.623	
8	118	24.532	
9	1	0.297	
10	12	2.494	
Total	336		

SENDORY LEVEL

ENGLISH (CLASS-V)

Among the fourteen classes four classes were taken from secondary level, considering two English, one Bengali and one History. In the English classes (class-V) was observed in Joypuria High Secondary School. After FIAS analysis it was found that only category 5 was maximum (58.850, Table-5.6) that is lecturing. Teacher expressed his own ideas and own explanation to the students. The percentage of pupil talk is 15.915 (4.804 + 1.111). It is found that pupil talk is very low than the teacher talked. Although Teacher talk has attracted attention because of its potential effect on learners comprehension (Ellis, 1994:583). The percentage of category no 10 i.e. silence is 7.807 and it is really high. The percentage of indirect influence of teacher talk is the sum of category no 1, 2, 3, and 4 and it is 4.503 (0.300+2.102+0.600+1.501), it is comparatively low. Similar patterns of classroom interaction in tertiary level classes have shown great differences in teachers' talk time. The number of questioning is really rare in this class. The percentage of category no. 4 i.e. asking question is 1.501. It is dangerous for the class V. On the other hand the category no. 5 is very high. It is not hopeful for the lower classes. This class is teacher dominated and the interaction between teacher and student are very weak. Because the I/D value of the class is 6.276. It is clearly indicates that the class is not fruitful.

Table 5.6. Number of response, percentage and I/D value of English class (Class No 1)

Category	Number of Responses	Percentage	I/D
1	1	0.300	
2	7	2.102	
3	2	0.600	
4	5	1.501	
5	196	58.858	
6	33	9.909	6.276
7	10	3.003	
8	16	4.804	
9	37	11.111	
10	26	7.807	
Total	333		

ENGLISH (FOR SLOW LEARNER, CLASS VI)

Another English class (class-VI) was observed in Burdwan city at Kestapur High School. After FIAS analysis it was found that like other classes category no. 5 is maximum. The percentage of pupil talk is 24.342 (Table 5.7), as it was slow teacher's class. So it is desirable that teacher should make more questions, but it was not happened. On the other hand the percentage of 5 and 6 categories was more. It was not natural for class VI. The percentage of I/D value is not well. Direct influence is more than the indirect influence. In this class the percentage of I/D value is 12.5. Teacher was active in this class but student response was not so better.

Table 5.7 Number of response, percentage and I/D value of English class (Class No 2)

Category	Number of Responce	Percentage	I/D
1	1	0.238	
2	23	5.489	
3	2	0.477	
4	5	1.193	
5	191	45.584	
6	49	11.694	12.5
7	8	1.909	
8	18	4.295	
9	84	20.047	
10	38	9.069	
Total	419		

BENGALI (CLASS 9)

A Bengali class was observer in secondary level. It was observed at joypuria higher secondary school. In this class the percentage of five(s) category is maximum after FIAS analysis. The percentage of category no.5 is 64.25 that is lecturing. In this category the teacher expressed his own ideas and was giving his own explanation. The percentage of pupil talk is 18.225 (Table 5.8). As it was Bengali class. So the percentage was appropriate but it is true that the percentage of the people should more. The percentage of asking question is 10.551. The percentage of praised or encourages category is better. The number of response is less in 1,2,3,7, and 9 categories for this important class. The percentage of I/D value is 22.53. It is true as the previous English class. The interaction between teacher and student is average.

Table 5.8 Number of response, percentage and I/D value of Bengali class (Class No 1)

Category	Number of Responce	Percentage	I/D
1	2	0.479	
2	4	0.959	
3	4	0.959	
4	44	10.551	
5	257	64.25	
6	26	6.235	9.818
7	1	0.239	
8	73	17.505	
9	3	0.719	
10	3	0.719	
Total	417		

HISTORY (CLASS IX)

In the history class was observed at Joypuria High School, Burdwan District by considering class-IX. FIAS analysis showed that category No. 5 is maximum and it is 48.362 (Table 5.9). The I/D value of this class is 32.746, it is more than Bengali and English and subsequently teacher-student interaction is very well.

Table 5.9 Number of response, percentage and I/D value of History class (Class No 1)

Category	Number of Responce	Percentage	I/D
1	2	0.389	
2	23	4.431	
3	5	0.963	
4	63	12.138	
5	251	48.362	
6	30	5.78	9.818
7	3	0.578	
8	136	26.204	
9	2	0.385	
10	0	0	
Total	515		

HIGHER SECONDARY

NUTRITION-(CLASS –XI)

From the higher secondary level only two classes were observed at Kestapur High School in Burdwan town and it is presented as the average of the two classes. From the FIAS analysis it was found that category No.5 is maximum, again the percentage of this category was maximum (52.16) that is lecturing is predominant and on the other hand category No. 10 is 0.215 i.e. silence or confusion. The I/D value (26.50%) indicate that student-teacher interaction is average.

Table 5.13 Number of response, percentage and I/D value of utrition class (Class No 1)

Category	Number of Responce	Percentage	I/D
1	1	0.215	
2	23	4.96	
3	4	0.862	
4	47	10.129	
5	242	52.155	
6	30	6.465	26.50
7	11	2.37	
8	65	14.008	
9	40	8.620	
10	1	0.215	
Total	464		

TERTIARY LEVEL

CHEMISTRY (B.ED.)

Among the fourteen classes three classes were taken from the tertiary level. All these classes were observed from Institute of Science Education in Burdwan University and M.U.C. Women's college. After FIAS analysis it was found that the percentage of people talk is 14.031 and the percentage of asking question is 2.419. The percentage of I/D value is 1077.

Table 5.10 Number of response, percentage and I/D value of Chemistry class (Class No 1)

Category	Number of Responce	Percentage	I/D
1	2	0.322	
2	30	4.84	
3	3	0.483	
4	15	2.419	
5	417	67.258	
6	45	7.258	10.77
7	2	0.322	
8	40	6.45	
9	47	7.58	
10	19	3.064	
Total	620		

English 1 (M.A.)

Another English class was observed from M.U.C. Women's Girls College.FIAS analysis showed that category no. 5 is high. In this category teacher gave facts or opinion about content. On the other hand the pupil talk is low. The total percentage of pupil talk is the sum of category no. 8 and 9 and that is 6.83. Therefore, we cannot say that the teacher's teaching was not very well. It is true that category no.4 which indicates asking question was not sufficient in this class although asking question to the students is a very important part The I/D value of this class is 5.856that is really low percentage. But in recent years, a much greater role has been attributed to interactive features of Classroom behaviors, such as turn-taking, questioning and answering, negotiation of meaning and feedback" (Chaudron, 1988:10). Finally, we can say that the

flow of communication between the teacher and students are not flexible.

Table 5.11. Number of response, percentage and I/D value of English class (Class No 1)

Category	Number of Responce	Percentage	I/D
1	1	0.189	
2	4	0.759	
3	4	0.759	
4	18	3.42	
5	435	82.542	
6	24	4.554	5.856
7	2	0.379	
8	18	3.415	
9	18	3.415	
10	3	0.569	
Total	527		

English 2 (M.A.)

Another more English class was observed from the M.U.C. Women's College and it shows same as before that is lecturing. The percentage of this category is 77.35. The other results is shown in table-5.12.

Table 5.12. Number of response, percentage and I/D value of English class (Class No 1)

Category	Number of Responce	Percentage	I/D
1	1	0.171	
2	5	0.857	
3	0	0	
4	17	2.917	
5	451	77.358	
6	31	5.317	9.818
7	2	0.343	
8	69	11.835	
9	6	1.029	
10	1	0.171	
Total	583		

Again from the Figure-1 it is clearly found that the maximum and minimum range of I/D value in different levels (primary, secondary and tertiary) and different subject has different. The maximum I/D in Primary level but minimum in tertiary level.

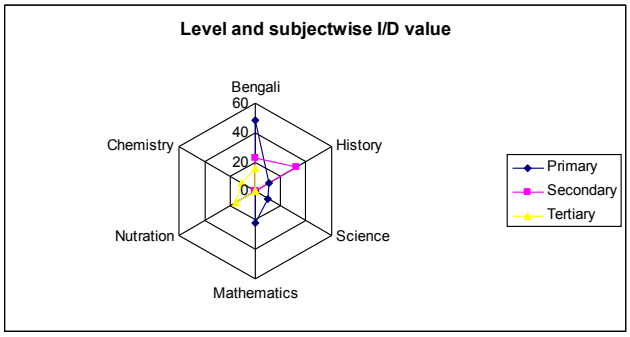

Fig.1. Showing the I/D value, level and subject wise

Conclusion

After application of FIACS analysis model in the class it has been realized that the interaction between teacher and students are not so better. The quantity and quality of asking question is not better. For the activeness of the class quality and quantity of the questions should be enhanced. Maximum teachers of the classes of the all levels ignored category No. 2 and 3 which indicate praise or encourages and accepts or used ideas of pupils. In order to make the classes more fruitful it is desirable that students should pay attention specially on these three categories (viz.-2,3 and 7 category). It has been found that in all level of the classes comparatively the percentage of pupil talk is not better. Teaching will be most effective if the percentage of pupil talk will be higher. The Teaching-Learning situations in the class-room involves interaction between the teacher and the students. The success of a teacher may be judge through the degree of effectiveness of his teaching which may be objectively assessed through his classroom behaviour or interaction. Thus a systematic or objectively analysis of the teacher's classroom interaction may provide a reliable assessment of what goes on inside the class-room in terms of teaching and learning. Classroom interaction analysis refers to a technique consisting of objective and systematic observation of the classroom behaviour and the process of interaction going inside the classroom. Among the primary, secondary and tertiary level, very low I/D value was found in tertiary level. This low value of I/D indicates that the entire class was teacher dominated. From primary to tertiary level there was a gradual reduction of I/d value was noted. Similarly different value (I/D) was noted in case of different subject. Among the subjects only Bengali was maximum (48.05%) and English was minimum (4.75%). Although it was hypothesized that I/D value will be higher in case of science subjects, but after FIACS analysis it was found that it is not true. Moreover, the study results showed that there is an effective difference of I/D value among different classes of Primary level, Secondary, Higher Secondary and Tertiary level. The quantity and quality of asking question is not so good. For making effective classroom environment the quantity and quality of questions should be enhanced. Now-a-days, it is common observation that students were very reluctant to attain in the classroom. Because they will collect the same class material through Xerox or elsewhere and this culture is not automatically developed, rather it is developed from secondary and higher secondary level. The same observation was noted from this study. Therefore, it is suggested that social scientists should think how to make classroom environment more joyful and more interesting.

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