

MOST FREQUENT TEACHING STYLES AND STUDENTS' LEARNING STRATEGIES IN PUBLIC HIGH SCHOOLS OF LAHORE, PAKISTAN

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ABSTRACT: *The objective of this study was to determine the main learning strategies frequently used by the students and frequent teaching styles as perceived by students. The sample was comprised of 560 (280 boys, 280 girls) students randomly selected from 20 Public High Schools (male = 10, female =10) of Lahore, Punjab, Pakistan. The Motivated Strategies for Learning Questionnaire (MSLQ) by Wu and Chering and Teaching Style Questionnaire by Chen was utilized for this study. It was found that help seeking learning strategy was most frequently used by students and democratic teaching style was most frequent as observed by student's perception. A significant difference was found in the utilization of elaboration, rehearsal, help-seeking and organization strategies of learning on the basis of gender ($p < .05$). Whereas no significant difference was found in critical thinking, meta- cognitive, peer learning, time and study management and effort management learning strategies.*

Keywords: Learning strategies; Teaching styles; Perception; Public High Schools; Gender.

INTRODUCTION

A competent teacher can transform a boring lesson into an attractive one by applying different teaching tactics [1]. It is basically a teacher's teaching style which mesmerizes his/her students and have a reasonable impact on the student's performance [2]. High quality learning and production of skilled students highly depends upon the teacher's teaching methodologies faced by their students during the course of study. The term of Teaching Style has been frequently referred to the application of different teaching methodologies by the teachers in classrooms and is also stated as "set of tactics of teaching"[3]. Other educationists defined it as "traits and qualities frequently applied by the teachers in a variety of classroom environments"[4]. Siedentop, stated it as an "instructional format"[5].

Gregorc [6] described that teaching style of a teacher is comprised of his/her personal behavior as well as the media utilized by him/her for transfer of knowledge to learners and/or attainment of info from them. It further stated that 'teaching style' is the type of behavior shown by the teachers while teaching in the classroom (Genc and Ogan-Bekiroglu [7]. Teaching style has been defined by Conti as a unit of 'traits and qualities' widely utilized by a teacher in the different environment of his/her classroom [4]. Teaching style has been denoted as "a universal method of imminent the learners that may be according to many ways of teaching" [8]. Different educational experts described teaching styles in different ways and prioritized them on the basis of effectiveness, but for the purpose of this research work; we took into account four specific 'teaching styles' that were Authoritarian, Democratic, Laissez Faire and 'Indifferent Teaching Style'. Utilization of appropriate learning strategies, improves their learning abilities of the students by assisting in easy solution of their education matters. The term of 'Learning strategy' has been referred to the student's behavior, mostly pondered with them for the regulation and control of their personal cognizance, resources and treating of information [9]. It also refers to the methodology utilized by the learners "to concentrate on, process, internalize, and remember new and difficult academic information" [10]. Other educationists defined it as "consistent pattern of behavior, however, with a particular variety of individual

variability" [11]. Learning strategy consists of "distinctive and discernible behavior that gives clues about the mediation abilities of people" [12]. Student's learning strategies have been classified into two principal types namely "Cognitive strategies and Time or Resource Management Strategies". The learning strategies of "Rehearsal, Elaboration, Organization, Critical thinking and Metacognition" are placed in the class 'Cognitive Learning Strategies' while the strategies of "Effort Management, Peer Learning and Help-seeking" are kept under the class 'Time/Resource management' [13].

Modern teaching methods are not properly applied in Pakistani schools while learning in the classrooms because of that, many students fail to face the new challenges of the modern era in their practical life [1]. Commonly there are two teaching methods being used at most of schools in Pakistan, namely traditional and innovative teaching methods/styles. Innovative style of teaching, in contrast to the traditional teaching methods, innovative styles of teaching helps in the improvement of the intelligence level of the students by involving them in a number of activities [14]. It assists in better understanding and easy solution of the problems and also supports in successful living of practical life [15]. Application of different knowledge transfer techniques results in significant improvement of the student's learning potential comparison to the simply passing through the syllabus. Student's perception about their teacher's teaching styles significantly impacts their achievements [16;17].

It is strongly suggested that school teacher's must have to revise their teaching techniques in accordance with their student's perception considering them as the best judges of their teaching styles [17]. The primary objective of this study was to determine the most frequent student's learning strategies and teacher's teaching styles (as per the students' perception) being practiced in public high schools of Pakistan. In addition to this difference between frequently used teaching styles and students' learning strategies, the relationship between teaching style and students' learning strategies and gender based difference in students' use of learning strategies were also assessed through this study.

The Teaching style of the teachers is greatly swayed from their personal experiences and many teachers attempt to use

their own experience teaching/learning tactics in their classrooms which may or may not be suitable in all situations. It is, therefore recommended that the teachers should change their teaching technique, keeping in view personal requirements of every student [18]. Henson proved that combination of learning strategies and teaching impacts on the student's results [19;20]. Lenz tinted the high need of giving due importance to students' learning strategies during the course of teaching/learning [21]. Martin highlighted the importance of the student's learning tactics during classroom teaching/learning [22]. Farkas concluded that matching of teacher's teaching styles with their students best learning strategies plays positive role in the improvement of their educational performance [23].

In a study at Texas, Curtin compared the results of using interactive and conventional teaching/learning techniques in classrooms, he reported that the application of interactive learning/teaching style showed good educational achievements of the students learning 'English as a foreign language (EFL)' than the use of deceptive/conventional method of learning/teaching in classrooms [24]. Chang [25] conducted a study to determine the effectiveness of use of constructivist way of teaching on the perception of the students about learning and teaching styles and reported that the student of Physics showed better education achievements due to use of "constructivist teaching style" than those students who were experienced conventional methods of teaching/learning. He further observed that application of "constructivist teaching style" promotes the high involvement of the students in the learning process which enhances appropriate use of learning strategies, thoughts and conjoint deliberations and creation of novel awareness about the subjects. Kim's [26] conducted a study regarding the impact of constructivist teaching on the educational successes of the students and proved that there is an insignificant difference in the utilization of types of learning strategies with the students exposed to constructive and traditional methods of teaching, however the students of the first group showed more use of the learning strategies. In another study Sungur and Tekkaya [27] explored the difference in the student's achievements through the utilization of "Problem-based learning (PBL) teaching style" versus "Traditional teaching style". They reported that the student group exposed to "Problem-based learning (PBL) teaching style" showed reasonable improvement to the basic objective and perceptions of learning in biology. They further reported that the students of the first group (exposed to PBL) showed more use of cognitive and meta-cognitive learning techniques in comparison to the group exposed to "Traditional teaching style". Further research observations also support the fact that giving due importance to students' perception/ needs while designing their teaching methods by the teachers, shows greater participation of the students in the learning process which leads to their increased educational achievements [26;27].

Both teaching skills of teachers and educational performance of the students can be improved by impeccable understanding of the perception of the students about their teacher's methodology of teaching. In a study conducted by Hughes [28], it was reported that there exists a significant relationship

between teaching styles (as per the students' perception) and the actual technique of teaching utilized by the teachers while teaching in the classrooms. Moreover, he also observed that the use of "interactive teaching style" results in reasonable improvement of students' achievements than the use of usual "traditional teaching style". In another study Chen [29], it was reported that "indifferent teaching style" was found as student's most frequently perceived teaching style at schools of Taiwan. Moreover, it was also observed that the use of "democratic teaching style" showed better academic results compared to the use of indifferent and/or laissez-faire methods of teaching. The disciplinary styles of teachers were categorized by Sun [30] had been used to determine the perception of school students about the teaching styles of their teachers.

Significance of Study

This research was especially designed to determine the current teaching styles (as perceived by high school students) and principal strategies of learning frequently practiced in Pakistani Public High Schools. Moreover, determination of any difference in the students' most frequent use of learning strategies, the association between strategies of learning of students and teaching styles, and difference in uses of learning strategies on the basis of gender were also the secondary objectives of this research work. In Pakistan National, Provincial and District Governments all have been investing big amounts for the improvement of quality of school education for many years, but the achievement of desired goals is looking from behind. This may be due to lack of evidence based decision making due to deficient research. Moreover student's perception was never given due importance while planning for teacher training programs even when it is internationally proved that students can be the best judge of their teacher's teaching methodologies. This study will be a good addition in literature and will provide evidence based data on the prevailing teaching styles and learning strategies from students' point of view which would be beneficial for all concerned in planning and development of the educational sector. It would be useful in curriculum development for teacher training courses. Moreover the findings of this study would be helpful for both teacher and students to improve their teaching and learning skills respectively. This study would also be helpful in drawing attention of the political, technical and administrative stakeholders towards the importance of student's point of view in monitoring and evaluation programs of educational projects.

Objectives of the Study

1. To determine the main learning strategies frequently observed by the students of public high schools in Pakistan.
2. To determine the main teaching styles (as per the students' perception) frequently observed by teachers of public high schools in Pakistan.
3. To explore the difference between student's frequently utilized learning strategies and teaching styles (as per the students' perception) frequently observed by the teachers of public high schools in Pakistan.

- To find out the difference in the utilization of main learning strategies observed by the male and female students of public high schools in Pakistan.

MATERIALS AND METHODS

Sample and Population

The sample was comprised of 560 (280 boys, 280 girls) students randomly selected from 20 Public High Schools (male = 10, female =10) of Lahore, Punjab, Pakistan. All the students of the 9th and 10th class, studying in Public High Schools in Lahore, Pakistan was considered as the population of this research work. For getting a representative sample of the study, in the first step separate lists of boys and girls public high schools were obtained from the education department, Lahore, then 20 schools (10 boys and 10 girls) were selected at random, and finally 28 high class students were chosen at random from each of the selected schools.

Study Design and Mesurer

The research was based on cross sectional research design. The Motivated Strategies for Learning Questionnaire (MSLQ) primarily designed by Pintrich et al. [31] and was later transformed by Wu and Cherng was used to measure the student’s learning strategies for this research work. It is a self-scored tool. The Learning Strategy Component of this instrument contains 43 measuring items. Its first portion relates to Cognitive Strategies of learning and is further divisible into five categories, namely Rehearsal, Elaboration, Organization, Critical Thinking and Metacognition each of which contains 4,6,4,5 and 10 items respectively. The second portion of ‘MSLQ’ is related to Resource Management Strategies of learning and is divisible into four sections, namely Time and Study Management, Effort Management, Peer Learning and Help-seeking each containing 5,3,3 and 3 items respectively. Each measuring item relates to specific statements about the use of a particular strategy of learning by the students. Every participant of the study was asked to respond to every item of the MSLQ as per his own perception on a 7-point Likert scale. Reliability and validity analysis of the ‘MSLQ’ was also conducted by Pintrich et al. [31] which shows its satisfactory level and internal consistency. They

found the values of reliability coefficient ranged from .65 to .91 for Rehearsal and the task value respectively. The values of reliability coefficient of the translated form of ‘MSLQ’ were ranged from 0.57 to 0.87 for the learning strategies of Rehearsal and Elaboration respectively [32].

The Questionnaire devised by Chen [29] to determine the Teaching Style of Junior High School Teachers was utilized in this work as a measurer of most frequent Teaching Style. This measurer is mainly based on disciplinary styles of teachers categorized by Sun which can be used to determine the perception of school students about the teaching styles of their teachers. The measuring instrument/questionnaire classifies teaching style of teachers into four categories, namely democratic, indifferent, authoritarian and laissez faire. This measuring questionnaire contains 29 items for the measurement of student’s perception about the teaching style of their teachers. Each component of democratic, authoritarian, laissez faire and indifferent teaching styles contains 11, 9, 5 and 4 items respectively. The scoring for each item is based on a 5-point Likert scale from never to always where 1,2,3,4 and 5 are used for never, seldom, sometimes, often and always respectively. The reliability coefficient of this questionnaire was determined as 0.93 and the reported values for each class were 0.90, 0.89, 0.86 and 0.81 for each of democratic, authoritarian, laissez faire and indifferent teaching styles respectively.

Collection of data

All the public high schools selected for this study were visited by the researchers in person for the purpose of data collection. Hard copies of both measuring instruments were given to all participants (high class students) and everyone was asked to respond to every item of the questionnaires in accordance to his/her personal perception.

RESULTS

To explore the student’s most frequent strategies of learning being used in public high schools at Lahore, Pakistan (research objective-1), the statistical analysis was done by applying of the Chi - square test. Results of frequency count and Chi-square test were depicted in the table 1.

Table 1: Frequently utilized strategies of Learning by Public High School Students (Frequency count)

| Learning strategy | Observed N | % | Expected N | Residual |
|-------------------------|------------|-------|------------|----------|
| Rehearsal | 69 | 12.32 | 56 | 13 |
| Elaboration | 35 | 6.25 | 56 | -21 |
| Organization | 46 | 8.21 | 56 | -10 |
| Critical thinking | 24 | 4.29 | 56 | -32 |
| Metacognitive | 10 | 1.79 | 56 | -46 |
| Time & study management | 27 | 4.82 | 56 | -29 |
| Effort Management | 83 | 14.82 | 56 | 27 |
| Peer Learning | 75 | 13.39 | 56 | 19 |
| Help Seeking | 120 | 21.43 | 56 | 64 |
| More than one strategy | 71 | 12.68 | 56 | 15 |
| Total | 560 | 100 | | |

$\chi^2(9) = 180.39, p < 0.05$

On the basis of the results it was declared that ‘Help-Seeking’ was the most frequently used strategy of learning by the high class students of Pakistani public high schools in Lahore. This strategy was utilized by 120 students (21.43%) out of

560. The second most frequently used strategy was found ‘Effort Management’ which was utilized by 83 (14.82%) students and the third most frequently utilized strategy was

found ‘Peer Learning’ which was utilized 75 (13.39%) students.

To explore the main teaching styles (as per the students’ perception) frequently observed by teachers of public high

schools in Pakistan (objective 2), the frequency counting and the chi-square test was practiced. The results are depicted in table 2.

Table 2: Frequency count of the frequently utilized teaching style in Pakistan Public High Schools

| Type of Teaching Style | Observed N | % | Expected N | Residual |
|------------------------------|------------|-------|------------|----------|
| Democratic Teaching Style | 211 | 37.68 | 112 | 99 |
| Authoritarian Teaching Style | 91 | 16.25 | 112 | -21 |
| Laissez Faire Teaching Style | 106 | 18.93 | 112 | -6 |
| Indifferent Teaching Style | 130 | 23.21 | 112 | 18 |
| More than one style | 22 | 3.93 | 112 | -90 |
| Total | 560 | 100 | | |

$\chi^2(4) = 166.98, p < 0.05$

The finding of the study (table 2) depicted that the ‘democratic teaching style’ was the most frequently observed teaching style (according to the student’s perception) and was perceived by 211 (37.68%) participants. The second most frequently observed teaching style was found ‘indifferent teaching style’ which was perceived by 130 (23.21%) participants. The ‘Laissez Faire’ and ‘authoritarian’ styles of teaching were remained as the third and fourth most frequently observed teaching styles which were utilized by

106 (18.93%) and 91(16.25%) participants respectively. Furthermore 22 (3.93%) participants perceived ‘more than one teaching style’.

To explore the difference between frequently utilized learning strategies by students and teacher’s teaching styles (as per the students’ perception) the method of Cross tabulation and Chi-Square tests were utilized. The findings of the tests were described below in table 3.

Table 3: Learning strategies of students verses Teaching styles of teachers (Cross Tabulation)

| Learning Strategies | Democratic Teaching Style | Authoritarian Teaching Style | Laissez Faire Teaching Style | Indifferent Teaching Style | More than one style | Total |
|---------------------------|---------------------------|------------------------------|------------------------------|----------------------------|---------------------|-------|
| Rehearsal | 39 | 5 | 9 | 15 | 1 | 69 |
| Elaboration | 9 | 4 | 7 | 14 | 1 | 35 |
| Organization | 15 | 9 | 8 | 12 | 2 | 46 |
| Critical Thinking | 10 | 5 | 2 | 6 | 1 | 24 |
| Metacognitive | 2 | 1 | 5 | 1 | 1 | 10 |
| Time and Study Management | 9 | 2 | 5 | 8 | 3 | 27 |
| Effort Management | 33 | 13 | 18 | 18 | 1 | 83 |
| Peer Learning | 33 | 11 | 15 | 12 | 4 | 75 |
| Help Seeking | 30 | 28 | 25 | 31 | 6 | 120 |
| More than one strategy | 31 | 13 | 12 | 13 | 2 | 71 |
| Total | 211 | 91 | 106 | 130 | 22 | 560 |

$\chi^2(36) = 51.46, p < .05$

The findings of the analysis as indicated above in the table 3, indicated that in comparison to ‘Democratic teaching style’ perceived by 211 participants, ‘Help-seeking learning strategy’ was utilized by 118 participants that clarified that there existed significant difference in the most frequently perceived teaching style and student’s most frequently

utilized strategies of learning in Pakistani public high schools.

To find out the difference in the utilization of main learning strategies observed by the male and female students of public high schools in Pakistan, t test analysis was done and the results of the analysis were depicted in table 4.

Table 4: Difference in the utilization of learning strategies by the boys and girls students

| Learning strategies used by the students | Male | | Female | | t | p |
|--|------|------|--------|------|------|-------|
| | Mean | SD | Mean | SD | | |
| Rehearsal | 5.16 | 1.13 | 4.66 | 1.29 | 4.88 | .000* |
| Elaboration | 4.79 | 1.02 | 5.04 | 1.05 | 2.86 | .004* |
| Organization | 4.73 | 1.01 | 5.09 | 1.07 | 4.09 | .000* |
| Critical Thinking | 4.79 | 1.13 | 4.89 | 1.03 | 1.09 | .274 |
| Metacognitive | 4.86 | 0.97 | 4.91 | 0.98 | .61 | .544 |
| Time and Study Management | 4.86 | 1.04 | 5.00 | 1.02 | 1.61 | .108 |
| Effort Management | 5.01 | 1.11 | 5.05 | 1.03 | 0.44 | .659 |
| Peer Learning | 4.95 | 1.31 | 5.03 | 1.09 | .78 | .432 |
| Help Seeking | 4.89 | 1.48 | 5.22 | 1.28 | 2.82 | .004* |

We observed statistically significant difference in the utilization of elaboration, rehearsal, help-seeking and organization strategies of learning on the basis of gender ($p < .05$). Statistically non-significant difference ($p > .05$) was found in the utilization of critical thinking, meta-cognitive, peer learning, time and study management and effort management learning strategies by the boys and girls students.

DISCUSSION

The first objective of this research was to find out the main strategies of learning frequently utilized by the students of Pakistani Public High Schools. The 'Help-Seeking' strategy of learning was found as the most frequently used strategy of learning by the high class students of Pakistani public high schools at Lahore. This strategy was utilized by 120 students (21.43%) out of 560. The second most frequently used strategy was found 'Effort Management' which was utilized by 83 (14.82%) students and the third most frequently utilized strategy was found 'Peer Learning' which was utilized 75 (13.39%) students. Our results are in line with the findings of Chang [13] however, they found Effort Management as the most frequent learning strategy used by the junior high school students in Taiwan, this may be due to a different educational environment in Taiwan compared to that of Pakistan.

The second objective of the study was to determine the main teaching styles (as per students' perception) frequently observed by teachers of public high schools in Pakistan. Our findings indicated that the main teaching style (as per students' perception) frequently observed by teachers of public high schools in Pakistan was 'Democratic teaching style' which was perceived by 211(37.68%) participants. The second most frequently observed teaching style was found 'indifferent teaching style' which was perceived by 130 (23.21%) participants. The 'Laissez Faire' and 'authoritarian' styles of teaching were remained as the third and fourth most frequently observed teaching styles which were utilized by 106 (18.93%) and 91(16.25%) participants respectively. Furthermore 22 (3.93%) participants perceived 'more than one teaching style'. This showed that Pakistani high school students perceive differently teaching styles differently and Democratic style of teaching was most frequently perceived. Reports of Chang[13] and [29]from Taiwani Junior high school students also in concordance with our findings, however, they noted that 'indifferent teaching style' was most frequently perceived by Taiwani junior high school students. This difference of type of frequently perceived teaching style may be owing to dissimilar educational setup in both countries. Moreover, Chen [29] further declared that the followers of "democratic teaching style" showed good results compared to the followers of "laissez-faire teaching style" and "indifferent teaching style".

The 3rd objective of this research work was to explore the difference between students' frequently utilized learning strategies and teaching styles (as per students' perception) frequently observed by the teachers of public high schools in Pakistan. Finding of the data analysis indicated clear difference findings indicated that there was a significant

difference between students' frequently utilized learning strategies and teaching styles (as per the student's perception) frequently observed by the teachers. Out of 211(37.68%) participants who perceived 'Democratic teaching style', the learning strategies of Rehearsal, elaboration, organization, critical thinking, meta-cognitive, time & study management, effort management, peer learning and more than one strategies were used by 39,9,15,10,2,9,33,33,30 and 31 participants respectively. The 'indifferent teaching style' was perceived by 130 (23.21%) participants out of which 15,14,12,6,1,8,18,12,31 and 13 students were found using Rehearsal, elaboration, organization, critical thinking, meta-cognitive, time & study management, effort management, peer learning and more than one strategies respectively. The 'Laissez Faire Teaching style' was perceived by 106 (18.93%) participants out of which 9,7,8,2,5,5,18,15,25 and 12 participants were observed using Rehearsal, elaboration, organization, critical thinking, meta-cognitive, time & study management, effort management, peer learning and more than one strategies respectively. The 'authoritarian teaching style' was perceived by 91(16.25%) participants out of which 5,4,9,5,1,2,13,11,28 and 13 students were observed using Rehearsal, elaboration, organization, critical thinking, meta-cognitive, time & study management, effort management, peer learning and more than one strategies respectively. The use of different strategies of learning by the students observing same teaching style was also reported from Taiwan by Chang [13].

We observed statistically significant difference in the utilization of elaboration, rehearsal, help-seeking and organization strategies of learning on the basis of gender ($p < .05$). Statistically non-significant difference ($p > .05$) was found in the utilization of critical thinking, meta-cognitive, peer learning, time and study management and effort management learning strategies by the boys and girls students.

CONCLUSION

At the end, the researchers concluded that 'Help Seeking learning strategy' and 'Democratic teaching style' were the most frequently utilized strategy of learning and most frequently observed 'teaching style (as perceived by the student)' by the students of Pakistani public high schools. The students who frequently utilize 'Help Seeking learning strategy' usually take assistance from their class fellows, teachers and ancillary sources. This is the best strategy which helps most of the learners to solve their academic issues with ease. It is further concluded that the democratic style of teaching is much helpful for a clear understanding of the subject matter in the classrooms as it permits maximum participation of the students in classroom learning. There exists significant to moderate relationship between frequently used strategies of learning and teacher's teaching styles. Moreover statistically significant difference has been observed in the utilization of elaboration, organization, rehearsal and help-seeking strategies of learning by the boys and girls students while the in the utilization of other strategies was statistically non-significant.

RECOMMENDATIONS

On the basis of the results of this study and review of the literature, the researchers strongly recommend that the curriculum of the teacher training courses must be revised by adding special topics about understanding of student's perception of teaching style and the utilization of learning strategies by the students. Student's point of view must be taken into account while assessing teacher's performance in classrooms. Furthermore, education department should have to launch coaching programs for the guidance of the students about selection of appropriate strategies to solve their academic problems. Teachers should change their teaching techniques in accordance to the needs of the students. Further studies regarding better understanding of the student's perception of teaching styles and utilization of learning strategies should be encouraged at vast level.

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