RELATIONSHIP OF INFORMATION TRANSFER AND CONCEPTUAL DEVELOPMENT TEACHING WITH LEARNING PERFORMANCE OF STUDENTS AT SECONDARY LEVEL

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Students learning performance depends upon teaching methods of teachers. They teach students with different methods and approaches. Informational transfer and conceptual development teaching are most common in schools. To identify relationship of information transfer and conceptual development teaching with learning performance of students was the purpose of this study. It was a correlational and descriptive study. The school's teachers were participants of the study. 150 teachers were selected from secondary schools by cluster sampling. A questionnaire was developed related to information transfer and conceptual development teaching for data collection on Likert type scale. The authenticity of instrument was measured by pilot testing. Furthermore, it is determined that there was a strong correlation between information transfer and conceptual development teaching. There was a near to moderate relationship between conceptual development teaching and learning performance of students. Teachers should provide time in class to students so that they can share and discuss their ideas with friends and teachers can provide right direction in discussion. This procedure may provide support to students in conceptual learning.

Key Words: *conceptual development; information transfer; Learning performance; teaching methods.*

INTRODUCTION

Teachers are operators who instruct and help learners to develop information and skill in this field. Moreover, they go about as models that

students can notice and mimic. In this way, it is imperative to investigate how instructors approach educating to encourage learners turning out to be qualified future educators. Teaching approaches are difficult combinations of teaching aims and intentions and procedures that instructors utilize during teaching (Lunenberg, Korthagen, & Swennen, 2007). The concern of teachers and administration is developing learners' capability to share ideas in classroom. The secondary school environment does not give enough real critical thinking and task based exercises for learners to be arranged intellectually for the sorts of issues they should comprehend in reality, or at their work environment. Right when children are demonstrated a positive behavior, for instance, dealing with problems, they routinely disregard to see that their new capacity can be used to deal with a similar issue outside of school. In various cases, those who are skilled with explicit tasks normally experience problems moving thoughts picked up from these experiences to the handling of especially sorted out concerns in schools. These outcomes show the frailty of students to see the transferability of thoughts picked up from dealing with very much organized issues in classroom to ineffectively composed problems looked outside the classroom. Moreover, the transferability of thoughts picked up from handling badly organized issues, similar to those accomplished in actuality, to the dealing with all around sorted out issues experienced in classroom (Johnson, Dixon, Daugherty, & Lowanto, 2011).

Two teaching approaches have been recognized which are most common. These are information and concepts development teaching. Educators consolidate these two methodologies in various manners as indicated by various teaching settings and controls (Stes & Van Petegem, 2014). Furthermore, educators' ways to deal with instructing impact learning ways of students. Concerning the circumstance in instructor training, educators' convictions concerning instructing have been developed during earlier education and school come across before inflowing educator instruction programs. These convictions impact the manners by which students educators see instructing and support of learner learning. Subsequently, the test for the two instructors and learners is that they have to consider their teaching beliefs and ways to deal with educate, which are impenetrable to change once formed. Instructors' help for students as far as their educating is substantial in this procedure (Rajuan, Beijaard, & Verloop, 2008; Vanassche & Kelchtermans, 2014). Information transfer is a psychological practice whereby a student's dominance of information or abilities in a single setting empowers them to apply that

information or aptitude in an alternate setting. Since transfer flags that a student's cognizance permits them to perceive how their insight can be applicable and to apply it viably outside unique learning conditions. It is usually viewed as a sign of learning (Barnett & Ceci, 2002). Learning approach recommends that an assortment of instructing systems can assist students with arriving at the scholarly development to transfer information, incorporating practice with calculated understanding, relative situations, and clear guides for learning (NRC, 2000). Transfer works in an assortment of ways. Teachers ought to know about negative exchange, or the use of misjudged data and ideas when learning new information. Educators can identify conceivable negative transfer by surveying learners' earlier information. As to move, concepts development students can perform much better, where they apply their insight to a related setting like an alternate class or task; where they apply information in a random setting normally, similar to handle trips, social cooperation, or profession performance (Kober, 2015).

Brophy, Klein, Portmore, and Rogers (2008) stated that we need to desperately change the manner by which we teach learners through developing their concepts. The changing idea of work highlights the requirement for this extreme move. So as to alleviate the requirement for broad retraining at incredible expense to associations it is important that laborers can move their insight to new circumstances rapidly and productively. There are few factors that influence learning. These incorporate whether students learning capacity, remember information, the measure of time spent on learning, the measure of purposeful practice that is done past learning the assignment, their inspiration and commitment, conditions, and the metacognition of them (Johnson, Dixon, Daugherty, & Lawanto, 2011). Students carry an abundance of information to each learning circumstance and without explicit direction from instructors, may neglect to associate regular information to subjects educated in schools (National Research Council, 2000). As metacognitive aptitudes of students develop their capacity to make associations with their learning encounters in school and turns out to be increasingly self-directed and programmed when taking care of issues. The idea of exercises inside issue based and venture based educational plans can help in confirming the critical thinking commitment by students. Information transfer is a component of the closeness of move assignments and learning encounters. It is in this manner influenced by the setting of the first learning. In this way, individuals can learn in one setting but fail in different settings. At the point when

learners are presented to different settings in their directions that incorporate models that exhibit a wide use of what is being instructed, they build up an adaptable portrayal of information and are probably going to digest the applicable highlights of concepts (Spiro, Vispoel, Schmitz, Samarapungavan, & Boerger, 1987).

One perspective of information transfer is that learners think problematic to transfer knowledge that they learn in schools since instruction disentangles material to make it simpler to educate. There is a developing notion that learning of this structure which uses problem oriented and venture based exercises, can upgrade students' information transfer and critical thinking abilities (Hmelo-Silver, 2004). Mahalik, Doppelt, and Schunn (2008), in an assessment of the adequacy of configuration based guidance, found that the designed approach of teaching is related with progress in accomplishment, commitment, and maintenance of conferment. The concept development of students before teaching is frequently seen by instructors as obstructions to learning, but they may fill in as assets if educators increment their comprehension about the scope of potential thoughts that learners hold concept clarity (Larkin, 2012). Socio-constructivist speculations urge educators to concentrate more on learner focused teaching practices (Schneider, Krajcik, & Blumenfeld, 2005). Therefore, teachers should prefer concept development teaching rather than knowledge transfer (Mortimer & Scott, 2003).

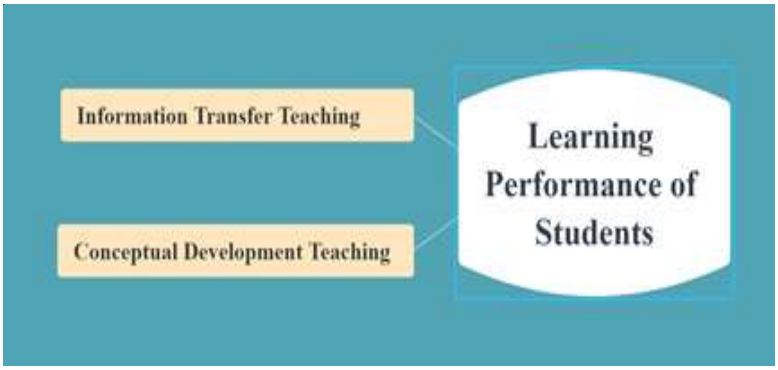

Fig 1:
Conceptual framework

Objectives

Following were objectives:

1. To explore information transfer teaching among secondary school teachers.

2. To explore concept development teaching among secondary school teachers.
3. To explore relationship of information transfer and conceptual development teaching with learning performance of students at secondary level
4. To examine difference between information transfer and conceptual development teaching with learning performance of students in terms of demographic variables.

RESEARCH METHODOLOGY

Nature of the Study

It was correlational and descriptive study. The relationship of information transfer and conceptual development teaching with learning performance of students was explored by conducting survey.

Population and Sample

The school teachers were participants of the study. They were selected from secondary schools of Lahore division. The sample from population was obtained by using cluster sampling. There are four division of Lahore district. The two divisions were selected for participants' selection. Therefore 150 teachers were selected from secondary schools.

Instrument

The questionnaire was developed related to information transfer and conceptual development teaching for data collection. The members of study gave their opinions on 5 point Likert type scale from strongly agree to strongly disagree. The validity and reliability of instrument were measured by pilot testing. Experts validated the questionnaire by highlighting the weak areas. After validation, reliability was calculated of scale. The scale was reliable and detail is in table 1.

Table 1. *Reliability of Instrument*

Cronbach's Alpha	No. of Items
.82	8
.87	11

The above table shows the reliability of the research instrument. The questionnaire contained the nineteen statements about relationship between information transfer teaching and conceptual development teaching. The Cronbach's Alpha was applied to check the reliability of the instrument. In first part there were 8 statements and reliability was .82, and in the other part there were 11 statements and reliability was .87, which is statistical significant.

Data Collection and Analysis

The researchers collected data after validation of instrument. For this, they visited the schools and met head of schools. They were briefed about study purpose and took consent of data collection. Then, teachers were approached in their classes and gave them questionnaire for filling. They gave their opinions on questionnaire. After getting data, it was analyzed by applying descriptive and inferential statistics. Different tests (Mean, Standard Deviation, Pearson *r*, independent sample t-test and One Way ANOVA) were used for data analysis. Data analysis is following in detail.

FINDINGS

Table 2.
Mean and Std. Deviation of Information Transfer Teaching

Items	M	SD
Students should study the provided material	4.25	.948
Clear objectives	4.27	.739
Focus on information	4.33	.764
Help students	4.29	.822
Provide notes	4.31	.778
Provide information for passing	4.31	.768
Deliver what I know	4.07	.891
Material to build information	4.18	.890

Table 2 shows the mean and standard deviation of the responses about the Information Transfer Teaching that statement 1 shows that

most teachers were agree that Students should study the provided material means value (*M* = 4.25, *SD* = .948), Clear objectives (*M* = 4.27, *SD* = .739), focus on information (*M* = 4.33, *SD* = .764), help students (*M* = 4. 29, *SD* = .822), Provide notes (*M* = 4. 37, *SD* = .778), provide information for passing (*M* = 4. 31, *SD* = .768), deliver what I know (*M* = 4. 07, *SD* = .891) and material to build information (*M* = 4.18, *SD* = .89). It is concluded that teachers use information transfer teaching approach in classrooms.

Table 3. *Mean and Std. Deviation of Conceptual Development Teaching*

Items	M	SD
Discuss topics	4.30	.730
Deliberate key concepts and ideas	4.04	.904
Encourage for creative thinking	4.32	.606
Provoke debate and discussion	4.33	.539
Provide opportunities for sharing	4.10	.775
Develop own notes	4.22	.818
Ways of thinking	4.09	.810
Monitor students	4.22	.904
Resources support	4.31	.714
Present facts	4.25	.882
Good presentation	4.25	.819

Table 3 shows the mean and standard deviation of the responses about the Information Transfer Teaching that statement 1 shows that most teachers were agree that I discuss with my students about the topics that are studying means value (*M* = 4.30, *SD* = .730), I give time to discuss different ideas (*M* = 4.04, *SD* = .904), motivate students (*M* = 4.32, *SD* = .606), focus on debate (*M* = 4.33, *SD* = .539), I provide opportunities to students to discuss their understandings (*M* = 4.10, *SD* = .775), develop own notes (*M* = 4.22, *SD* = .818), Teaching develops new ways of thinking (*M* = 4.09, *SD* = .810), observe understanding and concepts of learners (*M* = 4.22, *SD* = .904), providing resources support for learning (*M* = 4.31, *SD* = .714), provide enough facts and information (*M* = 4.25, *SD* = .882) and good way of delivering lecture (*M* = 4.25, *SD* = .819). It is concluded that teachers use conceptual development teaching approach in classrooms.

Table 4. *Correlations between Information Transfer Teaching and Conceptual Development Teaching*

Variables	r	Sig.
Information Transfer and Conceptual Development Teaching	.795**	.001

Table 4 displays the results of correlation test which was performed to identify the relationship between information transfer teaching and conceptual development teaching. The r - value shows a significant relationship $r = .795$ at $p = .001$ was there. Moreover, it is concluded that there was strong association between transfer and conceptual teaching.

Table 5. *Correlations of Transfer and Conceptual Teaching with Learning Performance*

Factors	r	Sig.
Information Transfer Teaching	.224**	.001
Conceptual Development Teaching	.289**	.001

Table 5 shows the results of Pearson correlation test which was performed to identify the relationship of information transfer and conceptual development teaching with learning performance. The *r* - value shows that there was significant positive connection $r =. 224$, $r = .289$ at $p = .001$. Moreover, it is concluded that there was a relationship of information transfer and conceptual development teaching with learning performance.

Table 6. *An independent sample t-test applies to know the difference of the Information Transfer Teaching and Conceptual Development Teaching on the basis of gender*

Factors	G	N	M	SD	t	df	Sig.
Information Transfer Teaching	Male	30	33.73	4.11	-.398	148	.691
	Female	120	34.07	4.10			
Conceptual Development Teaching	Male	30	45.40	4.75	-1.329	148	.186
	Female	120	46.67	4.69			

Table 6 Shows that t-test was used to compare the transfer and conceptual scores of both genders. There was no statistical variance in information transfer p =. 691 and conceptual teaching values p =. 186.

Table 7: *One-way ANOVA for School Difference*

Variable	SS	df	MS	F	Sig.
Information	104.867	4	26.217	1.588	.180
Transfer	2393.133	145	16.504		
Teaching	2498.000	149			
Conceptual	306.107	4	76.527	3.693	.007
Development	3004.433	145	20.720		
Teaching	3310.540	149			

Table 7 represent that One-way ANOVA used to check the dissimilarity in mean scores of Information transfer teaching and conceptual development teaching on school difference. Result show that there is no change of transfer teaching on the basis of their school difference F (4,145) = 1.588 at p =.180. Result show that there is difference in mean scores of conceptual development teaching of teachers by school difference F (4,145) = 3.693 at p = .007. So, there is statistical variance in mean scores of conceptual teaching due to school difference.

DISCUSSION

The aim of the research was exploring relationship of information transfer and conceptual development teaching with learning performance of students at secondary level. Teachers describe that it is significant that the course is totally depicted as far as explicit targets that identify with the appraisal of the course and they center on covering the data that may be accessible from specific writings and readings. They develop teaching to assist students with passing the evaluation of the course. Mostly teachers teach through information transfer teaching. Many essential factors of information transfer teaching are used by teachers. Teachers also put efforts in conceptual development of students. They agree that they give time to students to discuss main conceptions and ideas and inspire students to reorganize their current knowledge by creative mind. They entice them to participate in debate and discussion activities. Teaching

can play role in conceptual development of students. There was a strong relationship between information transfer and conceptual development teaching. There was a relationship of information transfer and conceptual development teaching with learning performance. The findings of current study are following the results of past study conducted by Cao, Postareff, Lindblom-Ylänne, and Toom in (2019). They observed that teachers perceived information transmission as an element of their teaching and some of them preferred teaching approach that related to student oriented. They found out that teachers used different approaches of teaching at a time. They used combination of teaching approaches information transfer and conceptual development of students. There was association between teaching approaches and students learning performance.

CONCLUSION

Teachers teach students by applying different teaching approaches. There are different approaches which teachers adopt while teachers but mainly are two for example information transfer and conceptual development teaching for students. Information transfer teaching is just deliver lecture and no concern of teachers that students have clarification about topics or not. Their intention is just to transfer knowledge and information and complete responsibility. The conceptual development is also a teaching approach in which teachers develop learning concepts of students rather than information transmission. They ensure concept development among students by examples and experiments and especially they give tasks to students and ask them perform practically by applying learned knowledge. This study was about examine association of information transfer and conceptual development teaching with learning performance of students. It was quantitative and correlational research. Teachers described definite objectives regarding course assessment and focus on learning of students. They teach students with full commitment and support them to pass particular subject. They focus to deliver in class that they know already and facilitate learners to develop understandings of course. It is concluded that teachers use information transfer teaching approach in classrooms. Teachers also motivate the class to learn new things on daily basis and store fresh knowledge and it is only possible when they learn things by self-effort and think critically by utilizing brainpower and ensure their participation in discussion activities and provide opportunities to students to discuss their understandings.

They develop students thinking and concepts by conceptual teaching. It is concluded that teachers teach students by conceptual development approach. Conceptual learning remains forever and it depends upon teachers that how they develop concept clarity among learners. Furthermore, it is concluded that there was a strong relationship between information transfer and conceptual development teaching but there was a weak relationship of information transfer and conceptual development teaching with learning performance of students. So, there was statistical difference in mean scores of conceptual development teaching of teachers on the basis of their school difference.

Recommendations

There are some recommendations that represents findings of the study.

1. Information transfer is teaching approach that teacher apply in classes for completion their responsibility not the learning of students. It promotes rote learning among students.
2. Teachers need to develop students learning concepts based. The conceptual learning is long lasting and students can solve their problems in daily life.
3. The students learning is not effective. Thus, it is teacher's responsibilities to use conceptual teaching approach rather than information transfer to make students learning more effective.
4. Teachers should force students to use their learning in daily life problems and for this teachers may pay concentrate on their conceptual development learning.
5. Teachers should provide time in class to students so that they can share and discuss their ideas with friends and teachers can provide right direction in discussion. This thing may provide support to students in conceptual learning.
6. Students may participate in debate and discussion activities for conceptual learning. Discussion is helpful in conceptual development learning of students.

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