Investigating the Effects of Implementation of Reading Strategies as Intervention on Comprehension Levels of Students of Grade 5 & 8 in an American Curriculum School in Qatar

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This Study aims at investigating results of interventions introduced in order to elevate the reading comprehensions levels of students in grade 5 and grade 8 studying in American curriculum school in Qatar. This study suggested exposing students to a variety of text from different genres by introducing changes in curriculum for reading. Teachers should be provided with more professional development workshops and trainings on teaching Common Core State Standard for literacy. This study can be considered a valuable addition in understanding challenges in reading comprehension levels.

Key words: *Curriculum, Professional development, Reading Comprehension*

Introduction

Studies have been able to generally categorize the problems in reading comprehension as problems in language knowledge, background information, lack of motivation, lack of effective reading strategies, troubles with reading process etc. Different researchers in details have investigated these issues. Many researchers have attempted to agree upon the definition of reading comprehension. Researchers have been making efforts to understand the meaning

of reading comprehension for years. Reading is considered a complex phenomenon; it works through drawing meanings from the text of vast ranges and is meant to be carried out for variety of purposes. Adams (1990) establishes that reading is not only the sound of word patterns but it is also an instrument to decipher the meaning from the text being read. Reading aloud for the sake of reading differs from reading for the sake of meaning. Weaver (1994) has been able to reach three different definitions of reading. First: Reading is the capability of recognizing and pronouncing the words and sounds of the words correctly. Second: Reading enables the reader to understand the meaning of the text. Third: Reading manifests itself as an interaction between the text and the reader. The third definition has been viewed more favourably and has evolved into more practical forms of reading definitions. Rumelhart (1977) has also brought forward the same understanding of reading comprehension and considers reading as an interaction between the reader and the text. This approach to reading bears a similarity with the views of Alderson and Urquhart (1984) who also believe the reader and the text are the integral parts of reading. Poor reading comprehension may result from number of factors during the reading process. It may include the failure to decode words, symbols, too little or too much interruption of back ground knowledge, poor or no application of reading strategies, difficulties in word recognition, inadequate language proficiency and lack of skills to derive meaning from the text (Gunning, 2002).

Reading strategies are a tool for enhancing the reading process to be more meaningful in promoting reading comprehension. Many researchers have taken up studies about reading strategies. Further to discussion on reading strategies, the study by Barnett (1988) is of significance because of its generalized division of strategies into categories: text-level and word level. These two categories have been endorsed by other researchers like Hosenfeld (1977) using the terms "main meaning line" and "word solving strategies and then they were referred as "clause related and "word related". Text level strategies involve engaging background knowledge, making prediction, reading for a purpose, and assistance from illustrations or titles.

Methodology

The intervention was designed around the reading comprehension based on study conducted by Thomas and Rothman (1994) which helped produce a rationale and guidelines to design an effective intervention. These researchers imply that a cohesive model of intervention characterised with clear planning and a design will have a greater capacity to engage its stakeholders. The current research model was designed to be developed in three stages as follows:

   i)   Developing knowledge of existing data.
   ii)   Meaningful use of this knowledge.
   iii)   Designing and implementing the intervention based on conclusions drawn from i & ii.

Based on these three areas, the intervention was planned to be made useful for stakeholders in and outside school. The model was designed considering following four objectives of the intervention.

Objectives of the Study

1. Understanding reading comprehension levels.
2. Collaboration with teachers to implement the reading strategies.
3. Intervention Implementation.
4. An overview of the impact of intervention.

The intervention meant introducing reading comprehension strategies to grade 5 and grade 8 for two school terms covering a period of 28 weeks in all. The researcher would keep making observations of the impact of intervention using different tools in order to understand how reading comprehension level of students can be improved.
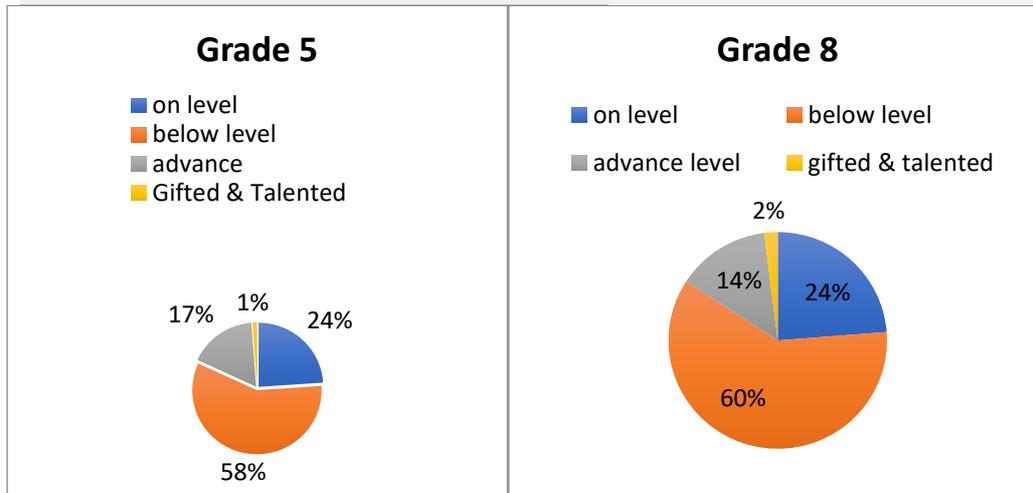
Data Collection

Data was collected from MAP reports for past 02 years, they were 06 in number for each student. MAP is an authentic testing system and gives teachers a clear picture of where students stand in terms of academic progress (Cordray. D, et al., 2012).

Fig 1.1 Correlation of MAP testing with teaching

Researcher's interest in collecting pre and post intervention MAP data has two purposes. One is to understand the lack of comprehension skills in students and the second one is to monitor the effectiveness of the intervention. Below level students are the ones who read below reading level of their peers in other American schools. Researcher collected the pre intervention MAP reports and a brief view of the scores is as follows:

Grade 5

- on level
- below level
- advance
- Gifted & Talented

17% 1% 24%

58%

Grade 8

- on level
- below level
- advance level
- gifted & talented

2%

14% 24%

60%

The analysis of the MAP data reveals that most of students lag behind in reading comprehension skills as compared to their peers in American schools. As a next step, researcher collected data from comprehension section in internal exam papers. The subject school has two semester exams in academic one year. The analysis of data from reading comprehension in exam papers also reflects that most of students lack important reading comprehension skills. Data reveals that students performed better in reading skills regarding grasping the main idea. The major problem areas identified by reading the data were related to implied meaning, word related problems, author's purpose, point of view and making inferences. RI (reading for information) was identified as one of major issues in reading comprehension levels of students.

Analysis of responses by teachers

As part of understanding teachers' perception about students reading levels, researcher designed and a questionnaire and shared with teachers which aimed at understanding the perception of teachers about reading comprehension levels of students.

The analysis of the teachers discussions reveals that teachers have a clear understanding about the reading comprehension levels of their students in school. They are also able to make educated guesses about the reasons of low comprehension levels of students, for example, most of them chose "activating prior knowledge through questioning" as reading strategy. They explained during further discussion that students usually don't connect with the text; therefore, teachers would want to activate their prior knowledge to make better connections with the text.As research proposes that lack of familiarity with the text may pose problems in comprehension (Block, 1986).

In literature review, discussion about the understanding of reading process in teachers or the effectiveness of their knowledge in promoting reading comprehension skills was taken into account. Surprisingly, none of the teachers mentioned the reading process, reading models.

Therefore, the focus of research at this point shifted from students to teachers and more studies were consulted in order to understand this unpredicted emergence. Westbrooke., et al, (2013) had conducted a study on pedagogy and curriculum assessment in developing countries and have argued strongly about the teacher's agency. Their argument is that it is not only what teachers do in classroom but also their beliefs, knowledge of teaching, their ideas and their behaviour in context of teaching community are all integral part of pedagogy. The study claims an evidence of positive findings related to outcomes in learning process in context of teacher's knowledge. The authors claimed the validity of the argument quoting the fact that as many as 123 studies have similar positive findings in their conclusions regarding teacher agency. Teachers enhanced knowledge is bound to shape their pedagogy towards better outcomes of learning for their students (Marshall & Sorto., et al, 2012).

Questioning was an echoing term during teachers' discussion, they used the term "questioning" many times during pre-intervention post interventions discussions, they believed that generating questions based on the text enhances the comprehension of the text. Questioning was the most popular choice among all the reading strategies and assessments options for teachers. Taking this back to literature review, the researchers Davey, B., & McBride, S. (1986) had made an effort to explore the connection between the questioning by students and their reading comprehension level and had concluded that students' prior knowledge about the concept played a significant role on the level of questions they asked. Researcher came to an understanding the teachers had a very clear perception that students lack high order critical thinking skills in reading comprehension.

Teacher shared that they consult CCSS for planning for reading lessons. The school adopted Common Core State Standards only 03 years ago, these curriculum standards serve as guidelines for teachers for planning their lessons. Teachers should be able to translate the standards into pedagogical techniques and strategies in order to make an effective use of learning materials, resources, learning opportunities and experiences. At this stage when intervention was implemented, teachers only three training sessions on using CCSS in classes. It was observed during the discussion that high school teachers seemed to have a better understanding of reading standards of CCSS (Common Core State Standards) as compared to elementary school teachers. Researcher connects this finding to the higher rate of employees turn over in elementary section as compared to high school. There is a probability that new teachers have lesser compliance to standards due to lack of training, eventually leading to creating gap in students' learning. This understanding leads to the ideas of better mentoring and professional development programs for teachers and also having an enhanced employees retention policy in place. Teachers also mentioned that students' difficulties in comprehension arise from lack of their exposure to a variety of text. Having no or little exposure to different types of text makes the reading process more difficult for the reader (Aldesron, 2000).

Analysis of the responses by students

78% of students try to guess the content of the text by looking at titles or subtitles helps me read back from Block (1986) who advocates the visual contribution to the understanding of the text. The research has highlighted that reader can make predictions about the content of the text and will try to guess the nature of content from clues like titles, subtitles or pictures. 65% of the students do not pay attention to the implied meaning of the text. If the reader is struggling with the basic reading skills like decoding difficult words, understanding the text structure or vocabulary, it is very much likely to miss out on the author's purpose or implied meaning of the text (Gunnin, 2000). 58% of students find the text very uninteresting. If the reader is not interested in the text, the reading outcome may be affected. If the reader is not interested in the text, it may prove drastic factor in reading achievement because of lack of effort on part of the reader (Krashan & Terrell, 1998). The overall understanding of theories about the factors affecting reading comprehension can be presented in the following framework.

Figure 1.
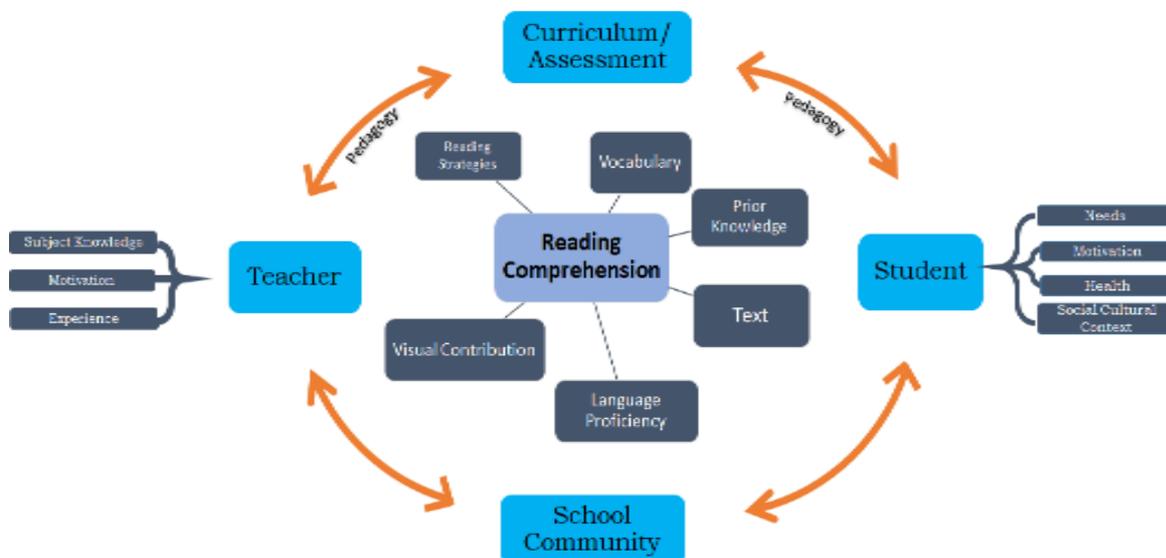
Collaboration with teachers to implement the reading strategies.

As part of intervention, I shared following 14 reading strategies with teachers.

1. Activating background through generating questions. Whole Class Instructions (Taboada, A., & Guthrie, 2006).

2. Developing a bank of multiple passages to develop challenging tasks. (Dole, J., et al, 2008).
3. Main idea identification through retelling partner. (Carnine, & Carnine , 2004).
4. Identifying links in pronouns and referents. (Hedin, & Conderman, 2010).
5. Generating questions from the text reading. (Davey, & McBride,1986)
6. Using annotation to engage the readers with text. (Casey., et al, 2003).
7. Pause to reflect to generate the meaning. (Conderman, 2010).
8. Teaching reciprocally. (Klingner & Vaughn,1996).
9. Restructuring the paragraphs to understand the meaning in the text (Hedin & Conderman, 2010).
10. Previewing to retain the text details . (Fremont., et al, 2011).
11. Read and paraphrase (RAP). (Casey & Reid, 2010).
12. Self-questioning on titles and subtitles (Berkeley., et al, 2011).
13. Gradual enhancement of reading text. (Hedin & Conderman, 2010).
14. Verbal prompting to get meaning responses. (O'Shea., et al, 1985).

Results

Intervention Implementation:

Keeping ethical considerations and guidelines in compliance, the intervention was introduced. Researcher held interviews with teachers and students after the intervention period was over. Teachers as well as students sounded excited about the implementation. The narration of their views on the intervention is summarized and analysed in this section. Students as well as teachers liked the reading strategy questioning to activate prior knowledge the most, this strategy was the most popular choice and interestingly, second popular choice was also generating text-based questions. Teachers shared that activating prior knowledge through questioning proved to be the most useful strategy. However, researcher noticed during the observations that teachers and students both were observed using more than one strategy simultaneously, switching from one strategy to another seamlessly without a conscious decision making was clearly evident during the lesson observations. For example, researcher observed a student who was assigned reading with the strategy 'linking pronouns to referents' switched to the strategy "read through annotating the text" more than once during the lesson. This helps researcher relate with findings by Daffy., et al (2003) who suggested that teachers or readers' independent choices of strategies may improve the outcomes of reading process. There were few more instances of the same in both grades. Aldesron (1999) had also concluded no single strategy can be useful in isolation; in order to achieve proficiency in reading, the reader needs an exposure to multiple strategies. The proper knowledge of the strategy and its effective usage can lead reader to better outcomes.

The observed finding during the intervention is well related to the literature explored in literature review section. However, on the other hand, there were some teachers who chose one strategy and kept sticking to it most of the times during the whole intervention period. The researcher infers from the observation that sticking to one practice may result in poor performance by the reader beings taught by such teachers. Study conducted by Brashdi (2002) investigating the nature of problems in reading comprehension concludes that readers applying more strategies more frequently ended as proficient readers compared to the readers who used only one or two strategies.

The solid evidence to the effectiveness of the intervention is that students reading tests and quiz scores had noticeably improved, students had shared that reading the text became easier as compared to before. They had felt the degree of lack of familiarity with the text has slightly declined. The unfamiliarity with the text poses itself as a hindrance to a meaningful outcome of reading process Alderson (2000). The researchers concludes that students' increased comfort level with the text is an indicator of improvement in their reading comprehension levels.

Students had also started using context clues more clearly. Questions in reading tests about using the context clues were attempted correctly. Students also improved in the word recognition. Another solid evidence of effectiveness of the intervention comes from improved reading level in the reading program in grade 5 class. Teachers reported that almost all grade 5 students have moved to the next level in their reading program as a result of rigorous implementation of intervention. Based on the discussions and analysis of results of reading quizzes, it is expected that students will have better score in MAP reading tests. Students described the reading experience from difficult to easy; most of them clearly stated that using reading strategies made it easier for them to understand the text.

During the intervention period, only two teachers made their readers independent in applying the strategy, whereas, rest of teachers kept the control of the application strictly to themselves. The purpose of creating a list of variety of strategies by researcher was to provide flexibility in choosing the strategies according to the needs of learner. At this point, an interesting personal finding was the realization of different teaching beliefs among teachers. Different teachers dealt with the application of the same reading strategies differently. Although the study was meant to be focused on students only but it underwent a shift toward teacher's agency more than once during the intervention period. The impact of the intervention cannot be seen in isolation without taking all these factors into account. The degree of impact may vary from one class to the other on account of teacher's experience, perception, teaching beliefs and the class management skills (Hargreaves, 2000). These discussions revealed some very interesting angles for me to research in future. I understood that in our school setting, students as well as teachers from different world parts of the world join us with their strengths, weaknesses and teaching beliefs and their background knowledge plays its role in pedagogy (Gunning, 2002).

Discussion and conclusion:

Hargreaves (2000) believes that teachers in today's world deal with a more diverse and a complex community of students, there is much more evidence to the moral uncertainty as compared to the past, the social groups and social and cultural context play a significant role in shaping roles. The teachers also learn through interacting with social groups outside the school community also and this approach has promoted diversity in teaching culture. When teachers get together at a place where they are to teach one particular curriculum with certain teaching methods and expectations, which is different from the places they have come from, it may cause difficulties for them in reaching a unified understanding about the same concept along with the difficulty caused by the diversity of students' population. The teachers must be prepared for speaking the same teaching language before they embark upon actual teaching and teacher should be equipped more with approaches in differentiation (Tomlinson, 2001).

There are some thoughts that have arisen as part of my reflection on the impact of intervention. I came across interesting findings. Many a times, I held back, reflected and made amendments to my writing, the focus kept shifting from students to teachers and teachers to students. When I started my practitioner's research, I had not expected myself reaching some conclusions. For example, I had a clear observation that teachers in high school had a better understanding of CCSS as compared to elementary teachers. On the basis of available data, I can infer was that higher rate of employees turn over in elementary section creates a gap of professional development among teachers. It has been taken granted that the teachers are familiar with standards, and they understand how to translate them into learning objectives and to construct lessons around these objectives. Most of teachers appeared to be in need of more clarifications about the reading process and the expectations of reading outcomes.

Researcher would suggest this as an area of improvement for English department. The department may work more on professional development of teaching skills in order to enable teachers to be equipped with necessary skills to teach reading. The difficulty in reading standards, expectations, skills and goals may be rooted in different causes as mentioned in the literature review. The department can arrange PD's for CCSS trainings.

The reflection section researcher founds it essential to discuss the teacher centred learning vs. learner cantered learning approaches. In teacher-cantered learning, the learning is controlled by the teacher and the background knowledge of the teachers serves as an asset for the students to make connections (Brown, 2003) whereas in a learner centred approach, the teacher considers all the factors like cultural background, heredity, life experience, talents, interests of the learner to maximize the outcomes of learning process (Brown, 2003). In a learner centred approach, the content knowledge is transmitted through the flexibility in teaching design, and learners in this approach are at the centre of learning process (Brown, 2003). Struggling too hard to read a text may result in poor comprehension (Alderson, 2000).

Diversity in teaching skills and teaching beliefs of teachers and inappropriate selection of text for students which means the text is either too difficult for students or they are unable to make a connection with the text can hugely impact the reading process for teachers as well as for students. Students' readiness and their learning profiles considerations should be taken into account during planning.

Diversity in students' population may be another cause of difficulties in the reading comprehension. If students feel lack of connection with the reading materials, the comprehension levels are bound to fall low. The readers should be able to create a mental representation of the information coming from the text in order to be able to grasp its complete meaning. This phenomenon is supported by research (Swaffer, 1988) and is also mentioned by students in open-ended questions. Appropriate text selection may prove to be a source of enhancing the reading comprehension of the readers. From my own teaching experience and from discussions with students and teachers, It is inferred that the text materials from the books, articles and the syllabus written and developed in other countries and contexts may have an element of estrangement for the students of this region which makes it difficult for them to relate to the content of material (Berhnhardt & James, 1987).

The analysis of data points out that our students have been scoring low on the standard (RI) reading for information consistently. The school has opted for CCSS only 03 years back. Common Core State standards have emphasized on reading for information, which means inclusion of informational texts in classroom teaching. The key shift in CCSS in reading was from fictional text to non-fictional text. Our books as well as MAP testing are based on CCSS. Teachers take their bench marking tests and assessment from the teachers' editions of the same books. Based on the synthesis of this information, I can safely infer that teaching and reading RI is still a weaker area for our teachers. The teachers may be given more training on how to read this particular standard and to translate it into learning objectives. Teachers and students will be able to make better connections with the reading materials. Connecting to prior knowledge is a helpful method to enhance the reading process. Background knowledge has been termed as prior knowledge by researchers and it includes knowledge of the world of the reader; it also includes the cultural background and experience of life of the reader. If the reader is able to connect the reading material with the world known to him/her, it becomes easier for them to follow the reading process smoothly (Aldesron, 2000). A change in curriculum exposing students to different types of text is suggested as it may address two issues highlighted this paper. One is extending the prior knowledge of the reader by exposing them to different types of text. This practice will help them build a mental bank with a significant variety of different types of the text. The students will be able to make a quick connection with the text effectively. On one side, this change may positively impact the level of motivation in readers, which is an important factor in reading achievement (Alderson, 2002). On the hand, this approach will improve the comprehension skills helping readers to be able to build connections with the help of prior

knowledge while they are in reading process. The interactive model of reading at work during the reading process increases the reading achievement (Aebersold & Field, 1997).

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