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Saudi Arabia**

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**Teacher Assistant of psychology department - faculty of
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Abstract:

The study aimed to explore the extent to which parent-teacher interactions affect the academic achievement of students in secondary schools in Saudi Arabia with the use of the Ginsberg and Hermann-Ginsberg tool containing 29 questions with a four-point ranking scale and 11 open ended questions. This tool was administered to 84 teachers in three secondary schools. Data analysis was conducted with the use of descriptive statistics and inferential statistics. Descriptive statistics were used for demographic variables and frequency analysis of scale items while inferential statistics were presented for correlation analysis and one-way analysis of variance between student academic achievement and the five interaction variables. The study found out that there was no significant correlation between academic achievement and the five interaction variables. These are interaction methods, interaction strategies, interaction contents, response time, and teacher's disposition; however, there were significant correlations among the interaction variables. Telephone and face to face interaction were the most cited interaction methods, while varying interaction strategies were used with different kinds of parents. Interaction contents revealed that parents and teachers do not only discuss school-related topics, while different response times were found out depending on the issues such as cheating or misbehaviour. Majority of the participants were positive towards planned parent-teacher conferences. The key words in this study are parent-teacher interaction - student academic achievement and Kingdom of Saudi Arabia .

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Introduction:

The concept of academic achievement or students' performance has attracted many educational researchers. Many studies have focused on its factors such as classroom set-up, teachers' behaviours and attitudes, peer interaction, and family environment (Mushtaq, 2012; Wang and Holcombe, 2010; Gietz and McIntosh, 2014; Daviran, 2014). These influential factors are often categorised in two types: internal and external factors (Pomerantz and Moorman, 2007). Whereas the quality of schools and the teachers are considered as the internal factors, the environment outside the school setting such as parental support and guidance is the external factor. Both the factors facilitate different learning experiences to students and lead them to various levels of academic achievements (Pomerantz and Moorman, 2007).

The role of teachers, an internal factor, is vital for the academic achievement of a student (Rockoff, 2008) The teaching quality of teachers greatly determines any students' academic success (Rivkin et al., 2005). Various capabilities and attitudes, for example as a guide and an assessor, are attributed to teachers which are also linked to the academic achievement or academic underachievement of students. On the other hand, parental involvement, an external factor, significantly impacts on the academic achievements of students (Topor et al., 2010). However, the types and natures of the involvement of parents can be differently defined and measured (Hoeover- Dempsey and Sandler, 2005). A parent can be involved in his/her child's academic life through different activities at home and beyond home. One of these activities is their interactions with teachers both at school and at home.

Since teachers and parents affect students' achievements, it is useful to look at how these two factors interact. The effective collaboration between these two factors is generally considered beneficial for ensuring positive educational outcomes and the future success of students (cited in Porter, 2008). In this study, the aspect of parent-teacher interactions within a school context has been explored. In the investigation the extent that parent-teacher interactions affect the academic achievement of students in secondary schools has been tried to realise. The major aim of this research is to realise the interaction modes, interaction strategies,

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interaction contents, response time, and disposition between teachers and parents. Additionally, the researcher wanted to investigate the topic at hand in her home country, which is the Kingdom of Saudi Arabia.

Research questions :

The overarching research question of this study is,

To what extent do parent-teacher interactions affect the academic achievement of students in secondary schools in Saudi Arabia?

To find the answer of this question it seemed to be necessary to explore the interaction modes, interaction strategies, interaction contents, response time, and dispositions of teachers and parents. Therefore, the following sub-questions were set for investigation:

- 1. What types of strategies are employed by teachers to interact with parents?**
- 2. What type of content is discussed between parents and teachers during their communication?**
- 3. What types of interaction channels (mediums) are used in parent-teacher interaction?**
- 4. What types of approaches are used by teachers in the interaction process to address specific students' behaviours (cheating, health problems, misbehaving)?**
- 5. What is teachers' disposition with parent-teacher interaction?**

Through the above questions it was expected that the interaction modes particularly the tools and methods used by Saudi teachers and parents for communication will be realised. Additionally, interaction contents or parent-teacher discussion topics will be understood. It was also expected that the findings of the questions will provide information about the teachers' dispositions such as their positive or negative feelings associated to parent-teacher conferences. Understanding the experience, views, and attitudes of teachers is essential as they affect their interaction with parents (Lasky, 2000).

The study adopted a quantitative approach through survey questionnaires to be able to answer the research questions. In the next chapter, the literature related to the research is analysed. Data collection and analysis, as well as results of the research conducted are discussed in the following chapters.

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Context:

The Kingdom of Saudi Arabia's educational system has gone through an astonishing growth in the last few decades (Royal Embassy of Saudi Arabia, n.d.). From having limited educational services in the past, the country's educational system has grown to 25 public and 27 private universities, around 30,000 schools, and a significant number of colleges and other institutions. The Kingdom's educational system now caters to all citizens of the country and provides students with free education, books, and health services. Because religion permeates even institutions such as schools, the study of Islam remains the centre, but it also allows diversity for culture and arts which prepare the Saudi students to work competitively in the globalised world (Royal Embassy of Saudi Arabia, n.d.). The research locale is of personal importance to the researcher as this is the country where she hailed from. Gaining a broader perspective on education, trends, and practices in a global setting, it remains important to go back to Saudi Arabia and use data to establish the relationship of the parent-teacher interaction to student achievement. As will be shown in chapter two or the literature review chapter, although there are numerous studies on parent-teacher interaction and academic achievement, it is evident that most of these are western. There is little existing research on the parent-teacher interaction and academic achievement in the local setting. It is the aim of the researcher to investigate academic achievement and to readily have generalisations that would be culturally applicable to parents, teachers, students, and other educational stakeholders in Saudi Arabia. It is important to find out if the perceived benefits of parent-teacher interactions as experienced by other countries are indeed beneficial in the local setting. The value for education as an aim towards students' development and progress should be propagated through means of research that is aimed towards developing effective models of parent-teacher interaction strategies

Importance of the study:

Researchers indicate that parent-teacher interaction has positive effects on a student's academic achievement (Topor et al., 2010; Sirvani, 2011). The interaction is however influenced by their beliefs and culture (Laky, 2000). Even though parents and teachers should

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become partners in the student's development, there are challenges for them to develop any fruitful interactions (Rockwell, et.al., 1996). Because of the pinpointed challenges, it is therefore necessary to investigate the realities of these hindrances in order to overcome them and to improve the quality of parent-teacher interaction. This research aimed to explore the interactions between parents and teachers expecting that the findings would help improve educational policies, educational processes, and advocacies through enhancing effective parent-teacher interaction. At the same time, the research sought to fill in the gaps in the literature focused to Saudi Arabian context by verifying if the results from western studies are culturally applicable. Particularly, it set out to describe the qualities of interaction to establish causality between parent-teacher interaction and academic achievement in students.

The research seems to be important in the field of education and the wider educational policy context. As mentioned before, due to gaps in literature, it is essential to conduct more studies to fill in the gap and to enrich the knowledge about parent-teacher interactions towards the students' academic achievement and success, particularly in Saudi Arab context.

LITERATURE REVIEW

It should be noted that the ultimate purpose of investigating parent-teacher interactions for improved academic achievement of students is to improve the quality of education and parent-teacher collaboration offered by Saudi Arabian schools.

1. Parent-teacher interactions:

Traditionally the concepts of parent-teacher interactions have mainly been discussed and practised in western countries. Most research findings in this literature review therefore explain relevant situations of western countries. However, these findings help realise the various features of parent-teacher interactions and their benefits, particularly in the case of students' academic achievements. In the following sections the concept of parent-teacher interactions has been defined and its benefits are discussed with references to various research findings.

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- Defining 'parent-teacher interactions'

The term "interaction" has diverse contextual meanings. For the purpose of this study, this researcher has focused on the parent-teacher interaction at school context.

In a traditional educational setting, particularly in classroom situations, "interaction" generally refers to the mutual understanding and collaborative actions between teachers and students (Zhang, 2005). Similarly, the cooperation, interaction and relationship between teachers and parents are defined as parent-teacher interactions which have been found beneficial for children's academic achievements.

Several factors such as parenting styles in a particular context, a school's education system, and curriculum may influence parent-teacher interactions (Dornbusch and Glasgow, 2009). The nature and features of this type of interaction can vary which may take the form of parent- or teacher- initiated interactions following collaborative or non-collaborative communication approaches (Thompson, 2008; Porter, 2008).

- Features and impact of parent-teacher interactions:

According to Wirt (2001), there are several research findings explaining the nature and impact of parent-teacher interactions in schools in the USA. Through his study he showed different areas of such interaction, for example, attending general meetings, attending meetings scheduled by teachers, attending one or more events held in the school within one academic year, and volunteering to serve on a school committee (Wirt, 2001). Noel et al. (2013) and Nilsen (2014) in their studies found that the interactions between parents and teachers have increased in the USA in recent years. Some other possible areas of parent-teacher interactions include parents' interactions with children about academic affairs at home, helping them to do homework and to help in managing academic studies (Lee and Bowen, 2006).

- Educational benefits of parent-teacher interactions

Traditionally the limited inputs of family and parents have been recognised in children's educational processes. In contemporary educational systems higher roles and responsibilities have been placed on teachers and parents and their cooperation is considered

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as key to children's academic achievements (Hill and Taylor, 2004; Grant, 2009). Parent-teacher interactions have not only been found beneficial for children's academic achievements, but also in improving a school's educational system and teachers' job satisfactions (Green et al., 2007). Finding effective approaches of parent-teacher interactions and ensuring their implementation are therefore advocated by many educationists and education policy makers (Casper et al., 2007).

Studies conducted on parent-teacher relationships appear to place parents on a visitor role in schools and to support student achievement as the key objective of parent-teacher relationships. Miretzky (2004) in his study focused on the importance of talk between parents and teachers to create and sustain democratic communities that reinforce improvements of student performance. In the study, it was found that parents and teachers may approach their interactions in terms of their commonalities of being wards of children, but it appears that they seek from each other the things that they need for themselves as people sharing a community that mirrors democratic values. This resonates with this study as it focuses on how teachers and parents view the education of children based on their personal aspirations. The findings of the research also revealed that the children's ability to perform better in academic tasks can be predicted by the degree of association amongst the school (e.g. teacher), parents, and the children. A number of studies (Harris and Goodall, 2007) suggest various levels of involvement of parents in their children's academic achievements, and such involvement suggests interacting with teachers and also takes into account children's characteristics.

Harris and Goodall (2007) in their study in the United Kingdom found that raising the academic achievement of students requires interacting with teachers for feedback and any potential problems that might need attention. This parental influence on their children's academic achievement is considered far greater than the support that children may obtain from school, signifying the important role of parents in their children's academic performance. When combined with interaction with the teacher, such parental influence is seen to work more effectively for the benefit of the learner (Harris and Goodall, 2007).

-Parent-teacher interactions in Saudi schools

Although parent-teacher interactions are treated as essential for the improvement of education, in Saudi schools these practices are not organised and adequate. However, a limited range of parent-teacher interactions in Saudi urban schools has been identified by a number of researchers. Dubis and Bernadowski (2015) found out in a Saudi city that parents and teachers use emails as a tool to communicate with the common goal of academic and/or behavioural performance at school of pupils with special needs. Abdullah et al. (2011) identified that in Saudi Arab parent-teacher interactions mainly enhance the pride in community and school, increase support in school decisions, lessen parents' feeling of alienation in school matters, and improve educational opportunities for learners. The last benefit is significant as improved educational opportunities increase the likelihood of academic achievement (Abdullah et al., 2011). It is however still not clear how parent-teacher interactions influence students' academic achievement in Saudi Schools

In this regard Harris and Goodall (2007) suggested that, in many cases parents' economic background determines their children's academic achievement. From the social and cultural perspectives Saudi Arab is unique in many ways. The society here is extremely conservative and the social roles are strictly traditional and faith based. Although because of the oil rich economy there are plenty of modern educational opportunities for the children, many parents are still unaware about the modern approaches of education including improved parent-teacher interactions. It therefore seems to be essential to investigate the present practices of parent-teacher interactions in Saudi schools with an emphasis to the nature and content of the interactions. Then, it is necessary to explore whether these interactions have any impact on students' academic achievements. For better realising the link between parent-teacher interactions and children's academic achievement it is also vital to consider the socio cultural conditions of Saudi Arabia, particularly which are related to the parents of the school going children (Harris and Goodall, 2007).

2. Parent-teacher interaction variables:

- Interaction approaches and strategies

Various strategies are being applied or suggested for ensuring effective parent-teacher interactions. These may include school-based collaboration and home-based family involvement.

Firstly, it is found that the school-based collaborative efforts of parents and teachers for the children's academic progress tend to result in the child's increased literacy development. This is likewise congruent with Jeynes in (2003) study whose emphasis was the investigation of the effect of parent-teacher collaboration on their children's academic involvement also supported the studies of Morrow and Young (1997) and Jeynes (2003) as they found that parent interaction with the teacher has an important impact on the educational achievement of the student, and this goes on through the student's adolescent stage and even in adulthood. Further, Peters and colleagues indicated the importance of benefitting from family learning, specifically by parents and children, and such benefits were identified as improvements in the areas of reading, writing, and mathematics on the part of the children, and increased efficacy to better help their children on the part of the parents (ibid).

Secondly, according to Fantuzzo et al. (2004), home-based family involvement can be a strong dimension of children's academic outcomes vis-à-vis school performance, and that it is significantly linked to their vocabulary skills, attention, task persistence, and motivation to learn. When home-based involvement and school-based involvement are being combined and when parents and teachers have strong interaction, the child's low conduct problems and academic difficulties are being addressed (ibid).

- Interaction methods/ mediums

Teachers establish partnerships with parents through communication to enhance students' learning (Graham- Clay, 2005). Interaction between parents may be one-way or two-way exchanges (Berger, 1991). There is one-way communication when teachers inform parents about school events or activities through letters, newsletters, communication books, and websites (Graham-Clay, 2005). Whereas, two-way communication has an interactive and

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engaging conversation through telephone calls, home visits, parent-teacher conferences, family activities in school, and open houses (Graham-Clay, 2005). One of the most popular interaction methods is a telephone call (Graham-Clay, 2005; Gustafson, 1998). In a study conducted by Ramirez (2001), it was found out that positive phone calls pave the way for more collaborative interactions later. Another interaction method commonly used is parent-teacher conferences because it creates opportunities to create a successful partnership (Mink and Anderson, 2003). Price and Marsh (1985) added that parent-teacher conferences need effective planning to be effective. Teachers should select the appropriate time and place; advice parents of the schedule in advance, pinpoint a purpose for the meeting, and identify information to be discussed (Price and Marsh, 1985).

- Interaction content

In parent-teacher interactions, the majority of the conversation revolves around the student's progress and academic evaluation. Many of the parent-teacher conferences present the opportunity to discuss academic progress and behaviour (Lemmer, 2012). Further, teachers often use communication notebooks to discuss learning needs of their child (Graham-Clay, 2005). Further to the technical knowledge of the teachers, parents also look for a "personal touch".

In interacting with parents, a key trait is cultural sensitivity (Yang and McMullen, 2003). Teachers are responsible to make parents feel valued and recognised and to convince that and their child, regardless of their cultural background, receive quality consideration (Yang and McMullen, 2003). However, parents also have a role to fulfil. They should be willing to share information such as insights into their child's development, culture at home, and personal views of education, among others (Yang and McMullen, 2003).

3. Role of family, society and culture:

Teachers' personality, attitudes and behaviours play a strong role in the education and academic achievement of children, particularly the students with unusual behaviours or disabilities (Molapo and Salyers, 2014). It has been seen by Adams and

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Christenson (2000) that the trust between parents and teachers is an essential requirement for maintaining effective parent-teacher interaction. They also found that any trusted parent-teacher interactions can improve the overall education system of an academic institution and also the students' academic achievements. From research findings (Bennett, Deluca and Bruns, 1997) it is found that parents feel a high degree of involvement in their children's education when the teachers possess positive attitudes and provide adequate support and guidelines of academic resources. Bennett, Deluca and Bruns in (1997) also identified that the need for a shared commitment among parents and teachers is essential for ensuring higher academic achievement of children. Researchers (such as Brown, Harris, Jacobson and Trotti, 2014) therefore recommend training teachers with necessary knowledge and attitudes for ensuring their effective communication with parents.

The influencing roles of teachers, family association, society and culture indicate the necessity of comprehensive perspectives through structured explorations to realise how parent-teacher interactions occur in Saudi Arabian schools and to what extent they are connected to students' academic achievements. Although researchers (such as Adeyemo, 2005; Faour, 2012) showed the positive impact of parent-teacher interactions on children's academic achievement, the relevant research in Saudi Arabia is very limited. In fact, it is difficult to assume the states of parent-teacher interactions in Saudi Arabia by comparing it to other countries because of its unique culture, tradition, and education. Adequate research is therefore needed in Saudi Arabia in relation to parent-teacher interactions.

4. Theoretical base and research framework:

Vygotsky's educational theory explains how parents can contribute to the academic achievement of children through their interaction with their environment, including the school and the teacher. Vygotsky identifies the important role played by parents as a key support in children's learning. Further, it emphasises the development of practical knowledge of teaching as an indispensably important process (Moll, 1990). Indeed, there has been a great deal forcing children's learning to be shaped using the perspective of Vygotsky's theory. Furthermore, Vygotsky's educational perspective

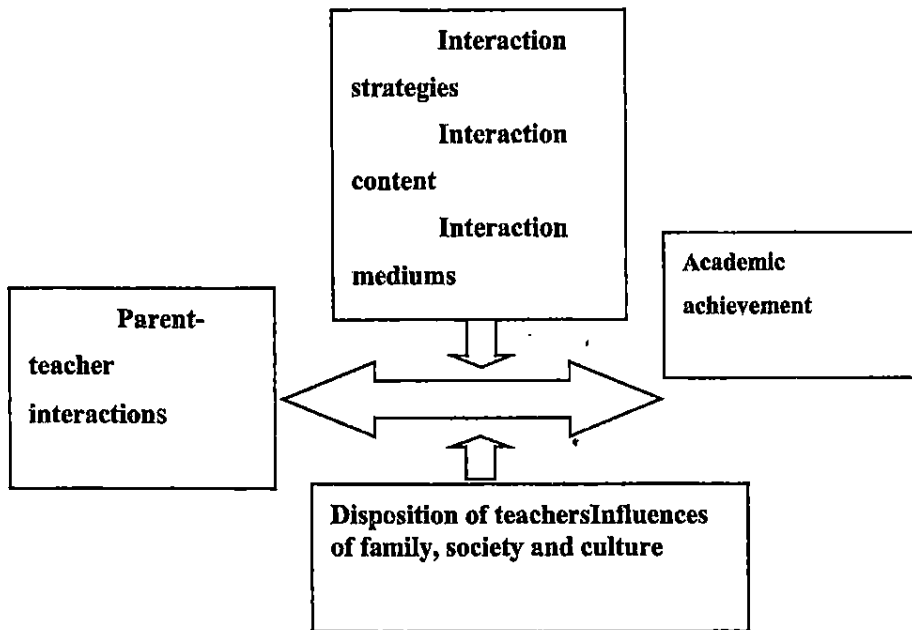
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assumes that the differences in perceptions of academic achievements are not cultural or context-free (Hammer and Miccio, 2004), which explains why culturally diverse parents may find it difficult to adapt to the cultural values of the host country's influencing patterns of parent-child interaction towards learning (Vigil, 2002).

Like Vygotsky's theory Bronfenbrenner's Ecological Systems Theory also takes its emphasis on children's academic achievement based on the interrelated relationships within their educational (or school) environment. The existence of complex layers of environment influencing a child's academic achievement is recognised by this theory, in which such development is fired up by the interaction between his immediate family/community environment and the societal setting in general. Thus, Bronfenbrenner's Theory assumes that an investigation of a child's development requires exploring his immediate environment (e.g. home) as well as the larger environment (e.g. school) in which he interacts (Paquette and Ryan, 2001). Furthermore, the beliefs and behaviour of a child may be influenced by his parents and teachers, and conversely, his beliefs and behaviour may affect his parents' and teachers' beliefs and behaviour. The theory refers to these influences as bi-directional influences, which possess a great impact on the child (Paquette and Ryan, 2001). Taking this point further, the improvement of children's academic achievement and also the educational quality of Saudi schools are expected to be an effect of the beliefs and behaviour of the child, parent, and teacher.

Based on the research findings on the nature and implications of parent-teacher interactions (discussed in Section 2.2 and 2.3) and the theories of Vygotsky and Bronfenbrenner (discussed in this section) the following research framework (Figur.:1) is designed to explore parent-teacher interactions in Saudi Schools.

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Figur 1: Research framework to explore parent-teacher interactions

According to the research framework (Figure 2.1), there is a mutual and reciprocal relationship between parent-teacher interactions and children's academic achievement which are determined by the strategies, content and mediums of interactions, and also influenced by the family, society and culture factors. To understand the process and impact of parent-teacher interactions it is therefore essential to realise the nature and features of the interactions and how they are influenced by the family, society and culture of the context. It is also important to consider that the involvement of teachers in the process particularly their dealing with students with unusual behaviours is crucial for the success of the interactions between them and the parents.

METHODOLOGY

Since the purpose of this dissertation's research is to discover the relationship and strength of association between parent-teacher interaction and academic achievement, the researcher considers it more appropriate to use the quantitative approach.

- Research Design:

With its adoption of quantitative approach, the study attempted to understand general laws that could be applied to the entire population as a result of information obtained from a particular group; in this case, an educational setting (Mukherji and Albon, 2015). It took on an objective approach that would hopefully allow different researchers to agree with what had been observed and conduct similar studies to verify results. This became possible because of the precise measurement of the data with structured and valid instruments. As the study aimed to examine any correlation between parent-teacher interactions and academic achievement of students, the aim of data analysis was to establish correlation through the use of statistics (Mukherji and Albon, 2015).

-Research Tools:

The primary research tool being used for the study was the Parent-Teacher Interaction Survey questionnaire retrieved from Ginsberg and Hermann-Ginsberg (2005). This questionnaire was used to collect quantitative data. Schwab (2005) explained questionnaires as tools to measure and ask respondents to answer a compilation of structured question, The participants were advised about the purpose of the research, and the process of receiving feedback over findings should also be prescribed.

The questionnaire used was designed by Ginsberg and Herrmann-Ginsberg (2005). It included a myriad of questions that allowed the participants to answer in various ways. The questionnaire contained both closed and open-ended questions and interactions were measured using the parent-teacher interaction survey. The questionnaire began with a demographics part that allowed the researcher to obtain descriptive details for later analysis. These demographics information could include as participants' ethnicity, gender, educational qualifications, and type of school, among others.

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Following the demographics part, the questionnaire had 29 questions with a four-point ranking scale. These rankings are strongly agree, agree, disagree, and strongly disagree, as well as eleven open-ended questions. For a copy of the questionnaire, (see Appendix E).

- Research Sample

When selecting participants for this research, the researcher aimed for the sampling to be as purposeful as possible. As Denscombe (2014: 34-35) described, sampling "operates on the principle that we can get the best information by focusing on a relatively small number of instances deliberately selected on the basis of their known attributes."

Since this researcher has roots tracing back to Saudi Arabia, she found it best to conduct her research and obtain a research sample there. Going back to her home country, the sample was completed by looking for participants in three secondary schools in Saudi Arabia during May and June 2015. It was the aim of the researcher to get 50 teachers to recruit from each school, thereby obtaining a total of 150 participants in all. However, only 84 participants agreed to participate in the survey yielding a 56% response rate. However, in the final analysis only 46 questionnaires were valid and the rest were discarded because they were uncompleted.

-Sampling Technique

Convenience sampling was the most appropriate sampling technique for this study since accuracy of selecting the sample was not essential in situations where an overview of a situation is all that is required (McCormack and Hill, 1997). Nevertheless, the study took note of the important aspects that needed to be considered in selecting the respondents for the survey. The criteria for the participants were (1) being a teacher working in a secondary school in Saudi Arabia; and (2) having had interactions with parents in the form of a relationship between parent and teacher.

- sampling procedur:

To begin the data gathering procedure, the researcher contacted the three secondary schools in Saudi Arabia to obtain permission to ask teachers to participate in the study. The researcher got

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permission from the department of planning and development in Ministry of Education in Saudi embassy to access to the schools (see Appendix B). Then, the researcher explained the purpose and goals of the study to school principals, teachers, and students in written and oral formats and provided opportunities for them to ask questions and seek clarification regarding the study. Once the teachers had agreed to collaborate, informed consent forms were sent to teachers with the tool (see Appendix C), and for student's grades consent forms were sent to Parents and students through the schools (see Appendix D). After teachers agreed to participate, the teacher questionnaires were sent to the schools by email (see Appendix E).

The questionnaire was completed and returned to the researcher electronically. To gather data about student's attainments, written consent was obtained from the teachers and parents, as well as from the schools. The researcher sent also a letter to the school head teachers along with a consent form to parents to disclose their student' grades and after the researcher got the permission from teachers, parents and students , the head teachers sent to the researcher student' grades via email. Permission was granted for this.

In terms of students' characteristics, they were classified according to nationality and socio-economic status. The majority of students (amounting to 60%) could be identified as mixed Saudis belonging to the middle socio-economic status (96.08%) and most of the students had the achievement levels in the middle category (85.71%).

PRESENTATION AND ANALYSIS

Demographic Information

As shown in Table 4.1, 46 participants answered the question regarding the level of schools where the participants had teaching jobs (44% of data were missing and list wise deletion method was used to deal the missing data). Out of them, 36.96% (17) were teachers in secondary school A. An equal proportion of 36.96% (17) were teachers in secondary school C. 26.09% (12) taught at secondary school B.

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There were 45 responses received for the question regarding home location. Table 4.1 shows that the majority of schoolteachers (44.44% or 20) lived within a large urban area, 24.44% lived in small urban areas and 31.11% of schoolteachers lived in villages. In addition, most of the participants from school C (9) dwelt in a large urban area, most of the participants from school B lived in large urban (5) and small urban (5) areas, and the majority of the participants from school C lived in village areas (9).

Table 1 Level of schools

Variables	Frequency (N)	Valid Percent (%)
Type of schools		
School A	17	36.96%
School B	12	26.09%
School C	17	36.96%
Dispersion of teachers		
Large urban		
School A	20	44.44%
School B	6	30.00%
School C	5	25.00%
Small urban	9	45.00%
School A	11	24.44%
School B	1	9.09%
School C	5	45.45%
Village	5	45.45%
School A	14	31.11%
School B	9	64.29%
School C	2	14.29%
	3	21.43%

As seen in Table.2, the school teachers who participated in the survey who answered the questions about their subjects mostly taught maths as their primary subject (21.21%), followed in turn by religion (18.18%) and Arabic language (12.12%).

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Table .2 Subjects Taught and Teaching Experience

Variables	Frequency (N)	Valid Percent (%)
Learning subjects		
Math	7	21.21%
Religion	6	18.18%
Arabic language	4	12.12%
English Language	3	9.09%
Geography	3	9.09%
ITC and research	3	9.09%
Art education	2	6.06%
Family & health education	2	6.06%
Chemistry	1	3.03%
Psychology	1	3.03%
Science	1	3.03%
Teaching experiences		
1 – 5 years	21	45.65%
6 – 10 years	9	19.57%
11 – 15 years	5	10.87%
16 – 20 years	8	17.39%
21 – 25 years	3	6.52%

In Table.3, the teacher's educational level was reported. There were 44 responses for the question of educational level. The results demonstrated that the majority of teachers (87.76%) had a Bachelor degree as their highest qualification. When the educational level data was compared with the type of schools, the result revealed that the majority of the schoolteachers from school A (93.33%) had a Bachelor degree background compared to 83.33% of the schoolteachers in the school B. 88.23% of the schoolteachers in the school C possessed an undergraduate level degree.

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Table.3 Educational Level

Variables	Frequency (N)	Valid Percent (%)
Educational level		
Diploma	2	4.55%
Bachelor degree	39	88.64%
Master degree	3	6.82%

In Table.4, student backgrounds are reported, including socio-economic status, academic performance level and students' nationalities based on the number of responses received. As the table shows, the majority of students (96.08%) came from the middle-income parents. As far as their nationalities are concerned, most of students from the middle-income parents were identified as mixed Saudis (60.00 %, 177). The majority of students fell within the middle performance category (85.71%).

Table.4 Student Backgrounds

Variables	Frequency (N)	Valid Percent (%)
Socio-economic status		
High poverty	2	3.92%
Middle income	49	96.08%
High income	0	0.00%
Academic performance		
Low achieving	5	10.20%
Middle achieving	42	85.71%
High Achieving	2	4.08%
Students' nationalities		
Saudis	17	37.78%
Mixed Saudis	27	60.00%
Non Saudis	1	2.22%

In terms of poverty, a common way to measure this variable is based on an individual or families' income. A person is considered poor if the income level falls below the minimum level necessary to meet basic needs or the poverty line (Ravallion, 1992). This refers to what is necessary to satisfy basic needs in a variety of societies over a variety of timescales. Therefore, the poverty line varies depending on the time and place, and each country has a different line which is

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suited to the level of development, societal norms and values (Gillie, 1996).

According to the Saudi government, the poverty line in Saudi Arabia refers to income of less than \$530 a month or about \$17 a day. The Saudi government only discloses little official data about its citizens living below the means, but press reports and private estimates suggest that between two and four million of the country's native Saudis live below the poverty line (UNDP, 2015). The country is made up of a two-tier economy which consists of about 16 million people, with Saudis and non-Saudis. Further, the poverty rate is changing and rising as there is the climb of youth unemployment. In addition, more than two-thirds of Saudis are under 30, and nearly three-quarters of all unemployed Saudis are in their 20s, according to government statistics (UNDP, 2015).

- Descriptive Frequencies Analysis of Scale Items

This section reports the results of statistical descriptive analysis of the items of parent-teacher interactions. In this research, all items were measured on a 4-point Likert scale with the range of "strongly disagree" to "strongly agree". Additionally, there were Non-Applicable (NA) responses for all items that counted as missing data. Some findings from open-ended questions were also reported to support the results generated from the closed-ended questions.

- Interaction Modes (research question1)

The first item discussed interaction agenda during the school year (parent-teacher conference). The results revealed that most of the participants agreed (60%) or strongly agreed (15%) that they kept in close contact with parents during the school year. This means that throughout the school year, constant contact were established throughout the months. Meanwhile, only 2.5% of participants had negative responses or disagreed.

These results indicated that the majority of participants understood the significance of parent-teacher interaction on students' academic success. Parent-teacher interaction helps students succeed in school and builds strong parent-school partnerships. Research indicates that parents' involvement in their children's education is beneficial to students and parents as well as to the school and the education system (Sohn and Wang, 2006).

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Students can improve motivation and achievement in education and improve their self-confidence. Moreover, parents can understand the curriculum and school activities more clearly and can get opportunities to work closely with educators. Meanwhile, teachers can take advantage of parental involvement by knowing parents' perspectives about students' circumstances (Sohn and Wang, 2006).

For the second item, there was a roughly equal proportion of positive (43.91%) and negative (46.34%) responses regarding teacher's encouragement to meet face-to-face with the parents outside the designated parent-teachers conference. However, the majority of teachers (58.54%) would prefer to use the telephone in contacting parents during the school year. In addition, only 31.71% of all teachers initiated e-mail communications to interact with parents. The high percentages of non-applicable responses (48.78%) and negative responses (19.51%) indicated that e-mail was not the primary medium of parent-teachers interaction during the school year.

Similarly, other quantitative results from open-ended questions reported that the majority of teachers (36.84%) used landline phones to communicate with parents, 26.32% of teachers conducted face-to-face meetings with parents, 15.79% of teachers used mobile phone, another 15.79% of teachers used formal letters, and email was the least popular communication medium used by the teachers (5.26%).

From these results, it can be concluded that computer-mediated communication (CMC) was not a primary mode of communication between parents and teachers. In this case, the majority of parents were probably not familiar with the email communication. Moreover, most of the teachers perhaps preferred to communicate with the parents synchronously in order to avoid misinterpretation of the message or delay the response from the parents.

Furthermore, to support the idea of synchronous communication between teachers and parents, other responses from the study reported that 57.5% of all teachers were willing to send the necessary materials to parents in order to increase interaction and parental involvement in the learning process. Only 15% of all teachers responded negatively to this question. However, 27.50% of all teachers provided non-applicable responses. This could be a clue that this non-responsive group of teachers assumed that sending

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materials home to parents was not an effective method to enhance interaction and parental involvement in the learning process.

Although not a direct aim of the research, data regarding interaction with divorced parents surfaced. The teacher participants have differentiated their dealings with parents who are together and those who are divorced. As far as dealing with divorced parents was concerned, the majority of teachers (46.15%) provided non-applicable responses to this issue. This indicates that teachers have limited or no ideas on how to interact with both parents on cases involving separation of divorce. At the same time, 17.95% of teachers provided negative responses in terms of making an effort to contact both parents when they were divorced, while 35.9% of teachers tried to interact with both parents. To explain this issue more deeply, an open-ended question demonstrated that 29.41% of teachers initiated contact with the parent who lives with the student. 23.53% of teachers contacted both parents and 17.65% of teachers only contacted the student's mother. However, the proportion of teachers with no idea about how to contact the divorced parents was slightly higher (29.41%).

Table .5 Strategies to work with divorced parents

Response	Frequency (N)	Valid Percent (%)
Contact with whom student lives	5	29.41%
Contact both parents	4	23.53%
Contact her mother	3	17.65%
No idea	5	29.41%

Moreover, still on the subject of dealing with divorced parents, another statistical result found that most of teachers (70.74%) interacted only with parents who attended the parent-teacher interaction events. This result indicated that the majority of teachers were reluctant to be proactive and initiate communications with parents.

- Interaction Strategies (research question2)

As this study zones in on parent-teacher interaction from the view of teacher, this section reports whether or not teachers had strategies for working with the parents in certain conditions. The results show that the majority of teachers had positive responses and

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indicated having specific strategies to work with uninterested parents (63.41%), verbally abusive parents (73.17%), and overly demanding parents (72.5%).

All teachers experience some level of frustration as they try to mobilise and interact with uninterested parents. Many teachers voice out their concerns that these parents do not or rarely come to school events, such as conferences or open houses, among others. This disinterest or lack of action leads to some teachers to perceive that those kinds of parents do not care about their child's education. However, there are a number of reasons why parents may not become involved, and teachers need to consider these before dismissing parents as uninterested (Greenberg, 1989). For example, many parents think that lack of time is a major obstacle to become involved. This is particularly true for parents who are working full time because they find it hard to attend school events during the day. As they work during the day, it is only during the evenings that they have time to spend with their families, and they chose to do so at home rather than in school. Another barrier is some parents do not understand the importance of parent-teacher interaction or may think they have insufficient skills to be able to help (Greenberg, 1989). Therefore, it is the responsibility of teachers and administrators to encourage such parents to become involved. The study conducted by Greenberg is in consonance with the behaviour by uninterested parents as observed by the teachers.

To enable this process, the results from an open-ended question revealed six specific strategies employed by the teachers to deal with the uninterested parents. The most common strategies were continuation of communication (23.53%) followed by individual meetings (17.65%). The next most popular strategies used by teachers were educating parents (11.76%), formal letters (11.76%), via the school principal (11.76%), and at school meetings (5.88%).

Similarly, teachers also had several specific strategies to deal with verbally abusive parents. An open-ended question reported that most of teachers (60%) opted just to ignore verbally abusive parents. 26.67% reported instances of abuse to school principals and 6.67% went to school specialists.

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Abusive parents may also define parents who mistreat their child. This abuse may either be intentional or unintentional. This may also manifest in different forms and occur for a variety reasons. Parental abuse of children can be categorised into the following forms: physical abuse, emotional or psychological abuse, sexual abuse and neglect (Gelles, 1973).

Meanwhile, overly demanding parents may potentially be discouraging their children from achieving at school (Bloom, 2015). The attitude of a family towards academic achievement affects how well children perform in school even more strongly than how wealthy they are. As stated in the literature review, parents in non-traditional families were more likely to be more demanding of their children than those in traditional two-parent families. Single-parent families were also more likely to be involved with their children's schools and activities than those in traditional families (Bloom, 2015).

The detrimental effect of overly demanding parents had driven the teachers to set up some strategies to reduce the negative effect of this attitude. From the open-ended questions, the responses gathered from the participants were analysed thematically, wherein similar answer were grouped accordingly. The results of the open-ended questions revealed five strategies for dealing with excessively demanding parents. The majority of teachers selected discussion (28.57%) when they met with parents. 21.43% of teachers opted just to listen to parents' talking and 21.43% of teachers chose to ignore them. Only 7.14% of teachers would concede to parents' demands and 7.14% of teachers said that they just had to be more patient with this type of parents.

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Table:6 Interaction strategies for parents

Response	Frequency (N)	Valid Percent (%)
Uninterested parents		
Continuing communication	4	23.53%
Individual meeting	3	17.65%
Educating parents	2	11.76%
Formal letters	2	11.76%
Through Principal	2	11.76%
School meeting	1	5.88%
No idea	2	11.76%
Verbally abusive parents		60%
Ignoring them	9	26.67%
Talk to school principal	4	6.67%
Talk to school specialist	1	6.67%
No idea	1	
Overly demanding parents		28.57%
Discuss that with them	4	21.43%
Ignore them	3	21.43%
Listen to them	3	7.14%
Do what they required	3	7.14%
To be patient	1	14.29%
No idea	1	

In terms of students' performances, the statistics also indicated that most teachers had specific strategies to work with parents either for poor performing students (85.37%) or for high performing students (73.17%). An open-ended question reported that there were three strategies that were the most popular with teachers to discuss low performing students with their parents: individual meetings (23.53%), formal letters (23.53%), and continuous communication (23.53%). Meanwhile, three other strategies used by teachers were encouraging parents to help (17.65%), conducting a detailed evaluation (5.88%), and setting goals with parents (5.88%).

The selection of strategies for working with parents probably indicated the communication challenges that are encountered by teachers. It was not easy to set up individual meetings even though this sort of interaction provided more advantages due to its characteristics as synchronous interaction.

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Table .7 Specific strategies for low academic performance

Response	Frequency (N)	Valid Percent (%)
Individual meeting	4	23.53%
Formal letter	4	23.53%
Continues communication	4	23.53%
Encourage parents to help	3	17.65%
Detailed evaluation	1	5.88%
Set goals with parents	1	5.88%

Additionally, 51.29% of teachers also had specific strategies for working with the parents of mixed and non-Saudi students. These mixed and non-Saudi parents comprise about 62.22% of the nationalities in the sample. However, the high percentage of non-applicable responses (38.46%) to this matter highlighted the reluctance of several teachers to develop specific strategies to work with non-Saudi parents. Cultural differences might be a communication barrier to interaction, including different lifestyles, values, culture, and experiential gaps between teachers and parents. To address this problem, teachers need to seek out information to understand the cultural and linguistic diversity reflected in the families of their students (Colombo, 2004; Ozturk, 2013).

- Interaction content (research question3)

Regarding the content of parent-teacher interactions, most of the teachers (60%) focused solely on academic issues during their interactions with the parents. Meanwhile, 32.5% of teachers provided negative responses to this question, a result that indicated that those teachers discussed other issues along with the academic matters when they communicated with parents.

In addition, 62.5% of teachers discussed not only personal matters but also other issues when they met with parents face-to-face. Only 22.5% of teachers focused just on personal matters in the parent-teacher meetings. Moreover, the open-ended question reported five specific issues as the most important ones to discuss with parents: drop in performance (33.33%), misbehaviour (28.57%), health issues (23.81%), family issues (9.52%), and poor attendance (4.76%).

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Table 8 Important Issues to Discuss with Parents

Response	Frequency (N)	Valid Percent (%)
drop in performance	7	33.33%
misbehaviour	6	28.57%
health issues	5	23.81%
family issues	2	9.52%
poor attendance	1	4.76%

An open question reported other important information regarding parent-teacher interactions. The results indicated six important issues. 13.33% of teachers were concerned about how to obtain respect from parents, 13.33% hoped to work collaboratively with parents, 13.33% expected the development of mutual each other, 6.67% of teachers expected parents to show more respect to the teachers, 6.67% of teachers expected to continue the collaboration, and 6.67% of teachers just hoped praying from parents.

It was clear from the results of the study that interaction between parents and teachers was not focused solely around school-related matters. This kind of communication would provide an opportunity for teachers to get a sense of the students' families and obtain a comprehensive picture of parents' challenges as far as getting involved in the learning process was concerned.

- Response time (research question4)

In this section, the teachers were evaluated about their response time towards emerging students' conditions, such as cheating behaviour, health, and student's behaviour or incidents in school, more specifically instances of cheating and concerns about health.

In this study, cheating refers to "any action that violates the established rules governing the administration of a test or the completion of an assignment, any behaviour that gives one student an unfair advantage over other students on a test or assignment or any action that decreases the accuracy of intended inferences arising from a student's performance on a test or assignment" (Cizek, 2003:3).

When participants were asked about their responses regarding cheating, the results of the study revealed that the majority of teachers (41.02%) provided negative responses, which

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meant that those teachers did not directly contact parents when their students were accused of cheating. In contrast, 33.34% of teachers assumed that they should contact parents regarding this issue. Meanwhile, 25.64% of teachers selected the non-applicable option due probably to never having had to deal with the problem of cheating behaviour.

In contrast to cheating behaviour, 72.5% of teachers responded promptly by contacting parents when students appeared unhealthy or depressed. Only 7.5% of teachers assumed that they did not need to communicate directly with parents. Meanwhile, 20% of teachers provided a not-applicable response.

In line with this, the majority of teachers (80.49%) directly contacted parents when there was an unexpected change in student's attitudes or performances. Only 9.76% of teachers provided negative responses in relation to this issue. Looking at these two sub-variables of cheating and health are indicators of how teachers interact and communicate with parents when it comes to critical topics. This depicts that there is a negative connotation and avoidance on communicating to parents instances of cheating.

- Teachers' dispositions (research question 5)

Dispositions are primarily learned as a consequence of experiences that are related to the self. According to Webster's Dictionary disposition is defined as the "natural mental and emotional outlook or mood; it is a characteristic attitude." Disposition pertains to the prevailing personal beliefs as shown in behaviour and in relationships with others (ibid).

As far as professional teaching is concerned, the National Council for Accreditation of Teacher Education (NCATE) describes disposition as "the values, commitments, and professional ethics that influence behaviours toward students, families, colleagues, and communities and affect student learning, motivation, and development as well as the educator's own professional growth".

In this study, the majority of teachers (66.67%) accepted the school's planned parent-teacher conference that is conducted regularly for teachers and parents to talk about the progress of their child. Only 7.69% of teachers provided negative responses. These results were consistent with other statistical results that the majority of teachers (85%) believed that the planned parent-teacher

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conferences were not a waste of time. Only 7.5% of teachers believed it was time-wasting activity.

Beyond planned parent-teacher conference days, most teachers (70%) felt positive emotions when they met parents. Only 12.50% of teachers did not enjoy the meetings. In line with this, other results revealed that most of the teachers (66.67%) believed that the meetings with parents were not waste of time. In contrast, there were 23.07% of teachers believed that the meetings were a waste of time.

In the meantime, the majority of teachers (64.1%) found that interacting and communicating with parents was not to be particularly time-consuming. Conversely, 20.51% of teachers agreed that working with parents was very time consuming.

In addition, many teachers believed that working with parents was worth the time and the effort invested. Only 5.13% of teachers believed the opposite. These results were also fortified by other data that showed 58.97% of teachers found working with parents not to be very difficult. In contrast, 30.77% of teachers provided negative responses, saying that they found parents difficult to work with.

As far as personal feelings were concerned, an open-ended question reported that most of the teachers were happy as far as interacting with parents was concerned (33.33%) and 20% of the teachers were very happy. 26.67% of the teachers said that they felt neither one way or the other, and 13.33% of the teachers felt irregular. Only 6.67% of the teachers were unhappy with parents-teachers interaction.

Table 9 Personal feelings

Response	Frequency (N)	Valid Percent (%)
Very happy	3	20%
Happy	5	33.33%
Normal	4	26.67%
Irregular	2	13.33%
Unhappy	1	6.67%

- Bivariate Analysis

In this section, two statistical analyses are performed to explain two aspects of the research. The first analysis considered the relationship between student academic achievement and five variables (interaction methods, interaction strategies, interaction

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contents, response time, and teacher's disposition). The second analysis looked at differences in the mean values of assessment scores amongst the three school groups.

- Correlation Analysis

This section presents the researcher's explanation of the relationships between student performance and five variables (interaction methods, interaction strategies, interaction contents, response time, and teacher's disposition). For this purpose, correlation analysis (Pearson's r) was used to analyse relationships statistically between student academic achievement and the five variables. In this study, the students' achievement was measured by the assessment scores of the learning subjects.

The results of the correlation analysis revealed that there were no significant correlations between student achievement and the five interaction variables. However, the correlation analysis found other significant correlations amongst the five interaction variables as was presented in Table 4.10.

Table 4.10 demonstrates that the five interaction variables had significant positive internal correlations. Interaction modes had a strong positive correlation with interaction strategies (0.646). This correlation implied that interaction modes used in parent-teacher interaction had a strong correlation with strategies used by teachers to work with parents. Similarly, interaction modes had a strong positive correlation with response times (0.672). Meanwhile, interaction strategies had also a strong positive correlation with interaction content (0.560). Furthermore, interaction content had a strong positive correlation only with interaction strategies (0.560). Response time only had a strong positive correlation with interaction channel (0.672). Teacher's disposition had a moderate positive correlation with interaction channel (0.465). Finally, teacher's disposition had a moderate positive correlation with interaction strategies (0.446).

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Table:10 Correlations amongst variables

		Assessment Scores	Interaction modes	Interaction strategies	Interaction content	Response time	Teacher disposition
Assessment Scores	Pearson Correlation	1	.160	-.007	.310	.257	-.120
	Sig. (2-tailed)		.343	.968	.058	.124	.492
	N	80	37	36	38	37	35
Interaction modes	Pearson Correlation	.160	1	.646**	.374*	.672**	.465**
	Sig. (2-tailed)	.343		.000	.019	.000	.005
	N	37	40	37	39	38	35
Interaction strategies	Pearson Correlation	-.007	.646**	1	.560**	.455**	.446**
	Sig. (2-tailed)	.968	.000		.000	.005	.007
	N	36	37	38	38	37	35
Interaction content	Pearson Correlation	.310	.374*	.560**	1	.377*	.200
	Sig. (2-tailed)	.058	.019	.000		.016	.235
	N	38	39	38	41	40	37
Response time	Pearson Correlation	.257	.672**	.455**	.377*	1	.304
	Sig. (2-tailed)	.124	.000	.005	.016		.072
	N	37	38	37	40	40	36
Teacher disposition	Pearson Correlation	-.120	.465**	.446**	.200	.304	1
	Sig. (2-tailed)	.492	.005	.007	.235	.072	
	N	35	35	35	37	36	37

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

One-Way Analysis of Variance (ANOVA)

In this section, ANOVA was used to compare the mean of the assessment scores amongst the three different schools (School A, School B, and School C). In this situation, inter-group analysis of variance was used because there were three different subjects in the independent group.

The results of Levene's test for homogeneity of variances (Table 4.11) reported that the variance in scores for each of the three groups did not violate the assumption of homogeneity of variance ($p > 0.05$).

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Table.11 Test of Homogeneity of Variances

Test Scores

Levene Statistic	df1	df2	Sig.
.393	2	42	.678

Meanwhile, Table :12 (ANOVA) explains both between-groups and within-groups sums of squares, degrees of freedom, mean square, F-test, and Sig. value. The ANOVA results indicated that the Sig. value was more than 0.05, and that as such it might be concluded that there was no a significant difference among the mean scores on the assessment scores for the three schools.

Table12 ANOVA results

Test Scores

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	408.667	2	204.334	3.013	.060
Within Groups	2848.030	42	67.810		
Total	3256.698	44			

DISCUSSION

Introduction

The aim of this research was to investigate the influence of parent-teacher interaction on students' academic achievement in three schools in Saudi Arabia. The data were collected by employing a survey method using three secondary schools in Saudi Arabia as the research locale. The population unit of this research was all teachers in these three secondary schools (referred to as School A, School B, and School C). The teachers were recruited from each school as participants of the research by using the convenience sampling method. The selected participants were recruited to the research based on their accessibility and willingness to participate.

In this section, the results of the study presented in chapter four are interpreted and discussed in order to answer the major quantitative

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research question: To what extent do parent-teacher interactions affect the academic achievement of students in secondary schools in Saudi Arabia?

I will return again to the five sub research questions in this study and I use them as a way to organise the discussion:

- 1. What types of strategies are employed by teachers to interact with parents?**
- 2. What type of content is discussed between parents and teachers during their communication?**
- 3. What types of interaction channels (mediums) are used in parent-teacher interaction?**
- 4. What types of approaches are used by teachers in the interaction process to address specific students' behaviours (cheating, health problems, misbehaving)?**
- 5. What is teachers' disposition with parent-teacher interaction?**

The study results are then discussed in detail by grouping the results under the corresponding issues of parent-teacher interactions. The groupings used for discussion are interaction modes, interaction strategies, interaction contents, response time, teacher's disposition and academic achievement.

- Interaction Modes (Research question1)

The results of the study demonstrate that the interaction modes used in parent-teacher interaction had no significant correlation with the students' achievements. This result indicates that even though the majority of teachers (75%) developed some level of interaction with their students' parents during the school year, the use of telephone as the main medium in the interaction (Chapter Four) had no significant effect on endorsing parent-teacher interaction with the students' achievement. Furthermore, most of the teachers (57.5%) expressed a willingness to involve parents in the learning process by sending home the learning materials.

The use of the telephone and face-to-face interactions as the most popular communication channels represented synchronous forms of parent-teacher communication (Thompson, 2008). The synchronous form of communication is more effective and has more advantages

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than the asynchronous form in relation to preventing misinterpretations, discussing complicated issues and getting to know each other better (Thompson, 2009).

However, the lack of effectiveness of parent-teacher interaction in relation to student achievements was perhaps caused by other barriers that hinder effective communication between teachers and parents, such as time constraints, meeting frequencies, and parents' feelings. Many parents may feel unsupported, misunderstood, and overwhelmed by the demands placed on them (Taffel, 2001). As far as time constraints are concerned, it is important for teachers at the beginning of the school year to determine parent schedules and availability, and also to provide parents with information regarding how and when to contact the teacher. Additionally, they need to properly realise the cultural backgrounds such as languages, traditions and norms of the children and their families to prepare effective communication strategies (Colombo, 2004). In this regard, teachers can address the cultural diversity in their classes, in school events and while interacting with the parents of their students (Molland, 2004; Ramirez, 2001). For example, in written communication, teachers can use several languages which would address the cultural diversity in education.

To summarise, the results indicate that interaction modes had no significant correlation with student achievement. Telephone and face-to-face communication were the main interaction mode used in parent-teacher interactions. Furthermore, the cultural differences between parents and teachers provided a challenge for teachers to enhance positive parent-teacher interactions.

5.3 Interaction Strategies (research question 2)

The result of correlation analysis indicated that interaction strategies did not have significant correlation with student achievements. However, interaction strategies had strong positive correlations with interaction modes and interaction content (Chapter Four). In other words, the success of strategies would depend on the effectiveness of interaction modes as well as interaction content.

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- Uninterested parents

Teachers had six specific strategies to deal with uninterested parents. The most popular strategies were continuation of communication (23.53%) followed by individual meetings (17.65%). The next most common strategies used by teachers were educating parents (11.76%), formal letters (11.76%), approaches via the school principal (11.76%), and lastly school meetings (5.88%). From these strategies, direct interaction through two-way communications (continuation of communication, individual meetings, educating parents, through school principal, and school meeting) and one-way communication through formal letter were selected as the dominant strategies because they were effective in increasing parents' interest to become involved in the learning process.

Two-way communication consists of interactive dialogue between teachers and parents. This type of communication may occur during telephone calls, home visits, parent-teacher conferences, open house events and various school-based community activities. Meanwhile, one-way communication occurs when teachers seek to inform parents through a variety of sources, such as letters, school newsletter, report card, communication books, radio announcements, school websites, and so on (Berger, 1991).

The continuation of communication as a strategy to deal with uninterested parents is probably best done in the form of a phone call home. Along with other strategies, this helped teachers to share concerns about particular children and to develop a growing trust, a mutuality of concern, and an appreciation of contrasting perspectives. This strategy also provides the teachers with valuable information about the lives of students, including extracurricular activities, bullying experiences and academic achievement.

5.3.2 Abusive and overly demanding parents

A majority of teachers have had to deal with abusive parents. Parents can be a source of support for teachers, or they can create frustrating obstacles to success. Therefore, the biggest challenges teachers face is working with verbally abusive or overly demanding parents. The results of the study reported that 60% of teachers just ignored verbal abuse and did not take a serious strategy to interact with abusive parents. This kind of approach was adopted by most

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teachers because they had little experiences and lacked the appropriate skills to communicate with abusive parents.

Meanwhile, to deal with overly demanding parents, 28.57% of the teachers selected discussion methods when they met with parents. 21.43% of teachers opted just to listen to parents' talking and other 21.43% of teachers selected to ignore them. Only 7.14% of teachers would accede to parents' requests and 7.14% of teachers said that they just had to be patient with this type of parents. The selection of discussion method by 28.57% of the teachers indicated that they had experiences in addressing demanding parents. However, the selection of more hypothetical strategies by other teachers indicated that most of the teachers had no skills in dealing with the overly demanding parents. This implies that teachers need to know how to utilise more ways to effectively interact with parents for a beneficial parent-teacher or parent-school relationship and collaboration.

- Academic achievement

There are many definitions of student achievement. From a teacher's perspective, student achievement is perceived as grades, test scores, involvement in activities and class rank. Meanwhile, students would perceive it as whether or not they graduate on time or at all and their grade point average. In addition, research studies and stakeholders in education commonly measure student performance from attendance rates, grade point average, discipline referrals, dropout rate, and non-curricular participation, standardized test scored by subgroup or by subject or other measures.

Student performance is affected by many factors which could come from internal or external sources. Internal factors refer to the quality of the schools and teachers. Meanwhile, external factors include environmental support outside schools that contribute to academic achievement. Parent-teacher interaction is one of the external factors that have a vital role in academic achievement. In schools children constantly experience overwhelming changes in cognitive, physical and social aspects which can confuse their teachers and parents. It is therefore important for both the parents and teachers to collaboratively evaluate the circumstances of their

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children so that they can take proper measures for ensuring their academic and non-academic achievements. (Bryan, 2005).

In this study, the teachers expressed their realisation of the pivotal role of parents in increasing student performance, particularly for low performing students. There were several strategies used by teachers to work with parents in a potentially stressful academic environment. The dominant strategies employed by the teachers were individual meetings (23.53%), formal letters (23.53%), and continuous communication (23.53%). Meanwhile, three further strategies used by teachers were to encourage parents to help (17.65%), to conduct a detailed evaluation (5.88%), and to set goals with parents (5.88%).

However, other results demonstrate that no relationships between student achievement and all the interaction variables. These results demonstrated that the strategies used by the teachers were not statistically effective in supporting academic achievement. Perhaps these results were caused by lack of frequency of interaction between teachers and parents and the failure of teachers to identify the type of parent-teacher interaction needed in supporting their students.

According to Epstein (1995), there are six major types of parent-teacher interaction. These are parenting which are helping families with child-rearing and parenting skills; communicating or developing effective home-school communication; volunteering or creating ways in which families can become involved in activities at the school; learning at home which pertain to supporting learning activities in the home that reinforce school curricula; decision-making which includes families as decision-makers through school councils and committees; and lastly, collaborating with the community through matching community services with family needs and serving the community. The teachers, working alongside parents, are urged to select those practices they consider likely to produce the types of outcome that agrees the most with their personal needs, goals, and skills or capacities. Epstein (1995) further urged schools to create and foster a greater interaction and common ground between the home, school, and community. This can be done through the implementation of activities which considers the six types of parent interaction: parenting, communication, volunteering,

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learning at home, decision making and collaboration with community. By implementing activities across all six types of interaction, teachers may help improve students' achievements.

Another barrier encountered by teachers was cultural differences between teachers and parents. The results of the study reported that the majority of parents had mixed nationalities (Saudis and non-Saudis). Even though most of the teachers (51.29%) had strategies to work with non-Saudi parents, their strategies did not have much impact on academic achievement.

Any social and cultural differences may cause hindrances in parent-teacher interactions (Gaitan, 2004). Mitigating these differences through parent-teacher partnership, promotion of different cultures in school settings, and ensuring frequent discussions with parents are therefore essential for the sake of children's academic achievements. For example, the school authority can organise cultural events of different countries and involve parents representing those cultures which would enhance the understanding between teachers and parents (Patrikakou, 2008).

5.4 Interaction Contents (research question3)

Although, the Correlation analysis reports that there was no significant correlation between interaction contents and student achievement, interaction contents had significant correlation with interaction modes, interaction strategies, and response time. Therefore, there is an interrelationship amongst these four predictors.

The results of the study demonstrated that interaction between parents and teachers did not focus merely on school-related matters. Furthermore, the open-ended questions reported five dominant discussed between teachers and parents: drops in performance (33.33%), misbehaviour (28.57%), health issues (23.81%), family issues (9.52%), and poor attendance (4.76%). These communication issues would provide the opportunity for teachers to understand parents' perspectives of the world, or offer them an insight into parents' attitudes, beliefs, and/or values. Furthermore, widening the interaction contents beyond academic boundaries would provide an opportunity for parents to share their points of view and would foster positive parent-teacher interactions.

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The results of the study also indicated that the majority of teachers used discussion strategies during parent-teacher interactions. Discussion strategy is a form of social influence during interaction. The discussion strategy used persuasion as a form of pressure to gain compliance to requests by sharing perspectives. Obtaining a good level of mutual understanding, and/or participating in the decision-making process were the activities carried out by parents and teachers that served as functions of the discussion strategy (Martin & Hewstone, 2008)

To sum up, the results of the study revealed that interaction contents were not focused solely on school related matters. Furthermore, the widening issues in parent-teacher interactions indicated that the teachers used discussion strategy to foster more positive and effective parent-teacher communication.

5.5 Response Time (research question 4)

The results of the study indicated that response time had no significant correlation with student achievement. However, response time had significant correlation with other variables: interaction modes, interaction strategies, and interaction contents.

In terms of cheating problems, the majority of teachers (41.02%) were reluctant to contact parents immediately in order to discuss the cheating. This was probably caused by belief on the part of teachers that they were able to cope with the cheating problem and the issue could be discussed later, in the teacher-parent conferences. However, 33.34% of teachers replied that they would contact parents in relation to this issue. These results were consistent with the findings of the open-ended question on misbehaviour (28.57%) that was one of the dominant issues discussed in parent and teacher interactions.

Researchers (such as Nora and Zhang, 2010) identified that the motives for cheating at a secondary school can be caused by children's low self-efficacy whereas peers often play an important role to discourage this type of unexpected behaviour.

In contrast, the majority of teachers would contact parent directly regarding student health (72.5%) and any unexpected change in students' attitudes or performances (80.49%). These results indicated that the schools had procedures in place to deal with student health and safety. The prompt response from schools to

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issues of health of safety will build trust between parents and teachers. According to Adams and Christenson (2000), trust between parents and teachers is a vital element in building and maintaining the family-school relationship. Their research (2000) also discovered that the perceived quality of family-school interaction was a better predictor of trust than the frequency of contact or demographic variables. Therefore, it is important to improve home-school communication in order to increase the trust.

- Teachers' Disposition (research question5)

Correlation analysis in this study reported that there was no significant correlation between teachers disposition and student academic achievement. However, teacher disposition had significant correlation with interaction modes and interaction strategies.

The results demonstrated that the majority of participants (66.7%) had positive responses toward planned parent-teacher conferences. This positive disposition would be useful for creating effective parent-teacher consultation, which would then lead to a successful partnership. Researchers (Price and Marsh, 1985) suggested that any effective parent-teacher conferences would require a careful planning including the considerations of meeting location, time, discussion content and communication method. Additionally, both parents and teachers require having proper communication skills, sympathy to each other and consciousness about the children's learning and achievements (Evans, 2004; Perl, 1995).

The other results demonstrated that most of the teachers expressed a positive disposition regarding parent-teacher interaction. This positive disposition is extremely vital to develop a reciprocal working relationship between parent and teacher (Ratcliff and Hunt, 2009). Furthermore, the lack of positivity will affect the effectiveness of teaching, student motivation, and the teacher's own professional growth (Notar et al., 2009).

Limitations and Recommendation

1. The tool used—a questionnaire involving scale questions and open-ended questions facilitated the gathering of data. However, a correlation was not established, so the research question could not be fully answered. The research sub-questions and sub goals

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were satisfied since there were a lot of significant data and correlation among the interaction variables, but the relationship between parent-teacher interaction and academic achievement was neither fully proved or disproved by the data collection and data analysis procedures.

2. Many factors could be attributed to this. Although 150 respondents was the original aim of the study, only 84 participants were able to truly participate and offer insights for the research. Among those, only 46 completed their questionnaires while the rest were excluded because they did not complete their surveys. To address this, it is recommended that more participants should be gathered to generalize findings to a wider population. The research locale could also be widened to include not just three schools, but more to gain a wider understanding of the research topic.
3. It is also recommended to add further to the triangulation of methods. As the present study used a questionnaire with open-ended questions, more quantitative tools could be added, and other quantitative analysis tools could also be used. For other researchers who wish to enhance the research, a mixed approach involving quantitative and qualitative views could be utilized. Although this would be a bold step, employing both approaches would yield deeper data. Quantities and relationships would be measured, and descriptions of experiences to go along with the findings would be added.

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