

## The Effect of Email Keypal Project on the Enhancement of the Writing and Reading Skills of Elementary School ELF Children in Saudi Arabia

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**Abstract:** The aim of this study was to investigate the effects of an email Keypal project on the English reading and writing skills of a group of Grade 5 elementary school students studying English as a Foreign Language in Saudi Arabia. A mixed methods approach was used with a quasi-experimental procedures, interviews were used to collect data. 10 pupils studying at a girls' school in Saudi Arabia participated in an email project with partners from a Muslim school in Canada. The Saudi pupils were pre- and post-tested on their reading and writing skills, and the t-tests on the mean scores indicate that the Keypal project helped the participating pupils improve their reading and writing skills significantly more than the pupils who did not participate over this term. The results of this study seem to indicate that Keypal projects could be a useful way of including technology in Saudi schools as they provide learners with a genuine audience for their work and could help to motivate learners and develop their language skills.

**Keywords:** Keypal - Enhancement - Reading - Writing - Elementary .

## أثر مشروع صديق المراسلة على تحسين مهارات الكتابة والقراءة لدى دارسي اللغة الإنجليزية كلغة أجنبية في المرحلة الابتدائية في المملكة العربية السعودية

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الملخص: هدفت هذه الدراسة إلى بحث تأثيرات مشروع صديق المراسلة على مهارات القراءة والكتابة على مجموعة من طلاب الصف الخامس الابتدائي الذين يدرسون اللغة الإنجليزية كلغة أجنبية في المملكة العربية. استخدم الباحث مناهج بحث مدمجة مع اجراءات شبه تجريبية، كما استخدم أداة المقابلة لجمع البيانات، عشر تلميذات مارسن مشروع صديق المراسلة بإشراف أهلن مع مدرسة للمسلمين في كندا، وبعد ذلك خضعن لاختبارات قبلية وبعديّة لمهارات القراءة والكتابة، وأشارت الاختبارات إلى أن مشروع صديق المراسلة قد ساعد التلميذات على تطوير مهارتهن في القراءة والكتابة بشكل كبير أكثر من التلميذات اللاتي لم يمارسن المشروع، وأظهرت الدراسة أن مشاريع صديق المراسلة قد تكون وسيلة مفيدة في تضمين التكنولوجيا في المدارس السعودية، كما أنها تزود التلاميذ بانعكاس صادق لعملهم، كما أنها قد تحفز المتعلمين وتطور مهاراتهم اللغوية.

الكلمات المفتاحية: صديق المراسلة - تحسين - قراءة - كتابة - ابتدائي.

## **Introduction:**

Technology is also playing an increasingly important role in foreign language learning and teaching (Chapelle, 2005). Computer assisted language learning (CALL) is a now a wide field which encompasses a range of technology such as e-learning, virtual learning environments, language learning software, the use of communication tools such as emails, chat rooms, and audio / visual conferencing, and so on. However, while the use of technology is considered to be beneficial for language learners, it is only as effective as the teacher using it, and technology should be approached in the same way as any other learning tool, that is, it should be evaluated for its effectiveness for language learning (ibid), and the features which are helpful for language should be investigated (Felix 2005).

One type of technology which has been extensively employed in language learning is computer-mediated communication (CMC). This refers to a group of tools related to communicating via technology, for example instant messaging, email, and chat groups, and to the social and cultural contexts of such communication (Kern 2006). CMC is widely employed in the language classroom for a number of reasons: it has the capacity to connect learners who are widely dispersed geographically, it has the potential for collaborative learning and it allows learners to interact with, modify and elaborate their language input and output whilst engaging in meaningful communication (Brett and González-Lloret 2009)

Email is a type of CMC that has been widely used in the language classroom for a number of reasons. From a practical point of view it is reasonably easy to set up and is free to use once an internet connection is established. Pedagogically, it provides learners with a real audience for their language output (Hoffman 1996), it can reduce language anxiety by allowing learners to think about and edit their message (Kupelian 2001 ).

In recent years the education system in Saudi Arabia has rapidly expanded and many new schools, colleges and universities have been established. The Ministry of Education in Saudi Arabia, which has complete control over the primary, intermediate and secondary schools, has recently instigated a policy of integrating technology into the curricula of all schools as part of its continuing goal to improve the educational system (Ministry of Education 2004). This means that teachers should not only teach their students the content of their subject, but also find ways to train and prepare them for the technological world into which they will graduate. For these reasons, this study aims to research the use of an email exchange project in a Saudi Arabian elementary school in order to determine how effective it is for enhancing the reading and writing skills of the pupils involved.

## **Research Aims and Questions:**

The aim of the research is to investigate the effects of an email Keypal project on the reading and writing skills of 10 grade 5 Saudi Arabian children studying English as a Foreign Language. A quasi-

experimental approach is used in order to compare the reading and writing gains (if any) of a group of 10 students as compared with a control group of 10 students of the same age and level, following the same course. Therefore, the research questions are:

- 1- Are there any significant differences in the overall pretest and posttest scores of a group of children participating in a Keypal project and a similar group who do not participate?
- 2- Are there any significant differences in the pretest and posttest reading scores of a group of children participating in a Keypal project and a similar group who do not participate?
- 3- Are there any significant differences in the pretest and posttest writing scores of a group of children participating in a Keypal project and a similar group who do not participate?
- 4- What are the participating children's attitudes towards the Keypal project?
- 5- What are the participating teachers' attitudes towards the Keypal project?

### **Significance of the Study:**

These days the question is not whether or not to accept technology into the EFL classroom, but how to integrate it effectively in order to maximize learning experiences (Liu et al. 2002). This is also true of the Saudi education system as the Ministry of Education expects all teachers to integrate technology into their classes (Ministry of Education 2004). Email projects are one of the ways in which technology can be implemented in the EFL classroom and it is hoped that this study will provide further information about how this type of technological tool can enhance the learning experience of children learning EFL in this context. The information obtained from the study can be applied to this particular context to increase the efficacy of English language teaching in this school, and may also be useful for teachers from similar schools in Saudi Arabia who wish to integrate email into their EFL classes.

### **Literature Review:**

#### **The Relationship between the use of Technology and SLA:**

The use of technology in the language classroom is usually referred to as Computer Assisted Language Learning or (CALL) and is defined as "a research field which explores the use of computational methods and techniques as well as new media for language learning and teaching" (Gamper and Knapp 2002). Over 15 years ago Hubbard (1996) pointed out that the question for language teachers was not whether computers could aid the language learning process, but how they could do this. This is even more true today in these times of rapid change as the social and cultural contexts of technology use expand, as

technologies diversify in terms of devices and in terms of modes of expression and interaction, and as the goals, content and structure of CALL pedagogy evolves (Egbert 2005: 6 ).

### **Interactionism Approaches to SLA:**

Interactionism approaches to SLA suggest that language acquisition occurs through interaction. They view language learning “as an outcome of participating in discourse, in particular face to face interaction” (Ellis 2003: 78) and it is believed that acquisition is facilitated when language learners receive comprehensible input, negotiate meaning, produce output, receive feedback on this output and modify it accordingly (Gass and Selinker 2008). According to the interaction hypothesis postulated by Long (1996), through interaction learners are able to move beyond their current language ability by modifying and restructuring their interaction with other speakers until mutual comprehension is reached (Gass 1997).

When considering how the interactionism approach can be applied to CALL, ways in which opportunities for input, interaction, output, feedback and negotiation of meaning can be provided need to be considered (Chun 2011). In general, the way in which this has been achieved is via the use of Computer Mediated Communication or CMC. Text-based CMC is now widely used both inside and outside the classroom and includes formats such as emails, blogs, wikis, bulletin boards and chat (Chun 2008). There are two types of CMC: synchronous, where the participants interact at the same time but in different places, for example through chats, and asynchronous, where the participants interact at different times in different places, for example through emails and bulletin boards. It is thought that synchronous CMC (SCMC) is more closely related to actual speech than asynchronous CMC (ACMC) as the interaction in SCMC is said to contain a range of discourse patterns and copious communication strategies that are closely related to oral interaction (Sotillo 2000 ).

CMC has been studied by a number of researchers from an interactionism perspective in order to determine whether it can provide opportunities for interaction in a similar way to face to face instruction. In general, the results have been positive and it has been shown that interaction via CMC can result in negotiation of meaning between the participants and learners producing language which is more lexically complex (Warschauer 1996), more grammatically accurate (González-Bueno 1998) and more syntactically complex (Sotillo 2000) than in face to face interaction. In addition, it has been found that the delayed nature of CMC can give learners more time and opportunity to notice and correct their own errors than they have in face to face interactions (Lai and Zhou 2006). However, other studies have found that in CMC learners tend to ignore errors and focus instead on the meaning within the communication (Lee 2002).

### **Socio-Cultural Approaches to SLA:**

While interactionism approaches to SLA have considerably advanced knowledge about how languages are learnt, they have been criticized for not taking into account the social aspect of learning. Socio-cultural approaches to SLA emphasize this aspect of learning and maintain that knowledge is constructed through social dialogue whereby cognitive functions such as attention, problem solving, and memory can be internalized through participation in social activities (Swain et al. 2002). According to socio-cultural theory, “participants always co-construct the activity they engage in, in accordance with their own socio-history and locally determined goals” (Ellis 2000) and learning takes place in interaction, rather than through interaction as interactionism theory maintains .

In socio- cultural theory it is thought that learning takes place through a process where knowledge is internalized, transformed and used for other processes in the learner’s social and cognitive development, and that knowledge is constructed in joint activity through a process of participating in cultural and social practices and is mediated through the use of tools (Lantolf and Thorne 2007).

### **Cognitive Approaches to SLA:**

The cognitive approach to SLA, unlike the previous two approaches, does not emphasize interaction and language learning with others; rather, it sees language learning as an individual process where learning occurs through internal mental processes. According to DeKeyser and Juffs (2005), in this approach knowledge is thought to be acquired either explicitly or implicitly and is either transferred from the first language or is formulaic knowledge of the second language. In using language, learners draw on their knowledge of L2 structure, they use universal processing strategies, L1 processing skills and incipient L2 processing skills and strategies, and they may use explicit or implicit or knowledge to help them.

A key aspect of the cognitive approach is the effect the task characteristics, performance demands and conditions under which tasks are performed have on the outcome and the development of accuracy and fluency. Finally, CMC, when used asynchronously, allows learners, especially lower level learners, the time to prepare their utterances and reduces the cognitive load of tasks, perhaps resulting in the production of higher quality language .Having looked at how the use of CMC can be justified from three SLA perspectives, the use of email in language teaching will now be explored.

### **Using Email in Language Teaching:**

The benefits of using technology in the language learning classroom have been well- documented. Butler-Pascoe and Wiburg (2003) for example have said that a technology enhanced learning environment can provide learners with opportunities for interaction, communicative activities with real audiences and

comprehensible input, and can facilitate focused development of language skills and foster cultural understanding. Similarly, Kearsley (2000) has stated that the use of technology in the classroom can make the classroom more autonomous, interactive, social, collaborative, co-operative, communicative and student-centered.

### **The benefits of email to language learning:**

Email is recognized as one of the most widely used applications of CMC (Newby et al. 1996) and has been seen as one of the most useful mediums for technology enhanced language learning for this reason: it can provide immediate feedback to the learners and it allows learners to communicate directly, cheaply, quickly and reliably (Levy 1997 ).

According to Kupelian (2001: 1) using email magnifies “the power and immediacy of the written word and as such, represents. He states that this delay can reduce learner anxiety that they may feel in face to face communication or telephone encounters. It also provides learners with a permanent record of their interactions where they have the opportunity to look at their own and other participants’ messages and analyse them, thus providing the opportunity for reflective learning. Another benefit of using email is that it provides learners with a real audience for their work, with whom they can communicate and interact, thus allowing real-world communication and immediate feedback (Hoffman 1996).

### **Keypal Projects:**

One of the ways in which email can be used in the classroom is through the use of Keypal projects. The term Keypal was coined to describe penpals who communicate using email and is the digital equivalent, where email is used as the mode of interaction rather than the traditional pen and paper method (Erben et al. 2009 ).

The groups of students then begin to email each other, often through structured tasks which the teachers decide on and give to the students. These can include cultural exchanges of information (for example, tell your Keypal about a recent festival) or personal exchanges.

According to Bourques (2006), Keypal projects have three main benefits: they stimulate students’ interest in writing in the foreign language by providing a real audience, they show students that the foreign language is more than just a school subject, and they increase students’ familiarity with the use of email, which can help prepare young learners for a life in the future global economy.

However, there are potential problems in setting up Keypal projects. Warschauer (1995) warns that in order to be successful, the goal of the communication between Keypals should always be apparent, time lines must be adhered to and the collaborating teachers should remain in constant contact for the duration of the

project, otherwise the interaction may break down. This was the case in Nozawa's (2002) project, where students were asked to find their own partners, and it was found that many students either found no Keypal or could not engage in regular correspondence, and approximately two thirds of the participants said that they probably would not continue with the project after it finished. One of the main reasons cited for this dissatisfaction was the difficulty in contacting and maintaining contact with their Keypal .

Therefore, in order to be successful, the teachers involved need to maintain control over the interaction and monitor the contact between learners during class time.

### **Previous Studies using Keypal Projects and Email:**

A number of studies have been carried out using email and Keypal projects, and these will be discussed in this section.

González-Bueno and Pérez (2000) compared the language produced using email with the language produced using traditional paper and pencil mediums and found that the email versions generated a statistically higher amount of words, but did not have any advantage over the paper and pencil medium in terms of lexical and grammatical accuracy .

Warschauer (1995) studied the differences between electronic and face to face discussions and found that, using email, the students produced language which was lexically and syntactically more formal and complex than in face to face discussions.

Toyoda and Harrison (2002) conducted a chat project between Japanese language learners and native speakers of Japanese and found that the exchange facilitated the negotiation of meaning of new words and grammatical structures. Shang (2007) also found that through an email project students' writing was improved in terms of their syntactic complexity and grammatical accuracy, but no gains in lexical density were found.

Li (2000) examined the linguistic characteristics of a number of different email tasks and found that when the task involved interaction with the target reader, students tended to produce syntactically and lexically more complex texts than when interaction was not required, showing that the type of task given to the students may have an influence on the quality of language they produce .

Knight (2005) found that in order to preserve the interactional benefits of face to face tasks when completing them through the medium of email, certain modifications need to be made. In this particular study which compared jigsaw and decision making tasks via face to face communication and email, he found that the information needed to be staggered in the email tasks in order for comparable amounts of interaction to occur.

Fedderholdt's (2001) study of a Keypal exchange between Japanese and Danish students resulted in a high level of interest from the students and increased motivation towards writing .

On the other hand, Thatcher (2005) found that his students became frustrated when using email due to the fact that this medium of communication does not contain the usual social cues, and some students reported not being able to communicate exactly how they wished and finding face to face and telephone communication easier. Non-responses from peers to send emails can also lead to a reduction in motivation and threaten the success of any Keypal project (Kupelian 2001).

## **Methodology:**

### **Mixed Methods Approach:**

This study uses a mixed methods approach to discover more about the effects of a Keypal project on the reading and writing skills of a group of Grade 5 Saudi Arabian children studying English as a Foreign Language. This approach rejects the idea of a purist paradigm approach, and instead adopts a pragmatic approach, where methodological choices are made based on what works rather than what is compatible with the preferred paradigm, and there is a focus on action rather than philosophical underpinnings (ibid ).

This study uses a quasi-experimental approach which results in quantitative data and also interviews with the participants which generates qualitative data.

### **Participants:**

#### **The Saudi Participants**

The research was conducted from March to May during the second semester. The research site was a private elementary girls' school in Saudi Arabia "ALGhad School". This school was chosen as it was a site to which I had access and it was practical for me to visit there and conduct the research. The chosen school has 4 Grade 5 classes, and two classes has been chosen with 18 pupils in one class and 20 pupils in the other class. Both of the groups are taught by the same English teacher. 10 pupils were randomly chosen from each group. It is recognized that this method of selecting participants is a form of non-probabilistic sampling as the participants were selected based on their willingness to take part. All of the pupils have been learning English since the third grade, that is, they have had two full years of English instruction and are in their third year of learning. Their level of English is quite low and can be considered to be Elementary. They are able to read and write in English to this level .



**The Keypal Participants:**

Due to cultural considerations and concerns from the parents, it was important that the partners were also girls and that they came from a Muslim background. A suitable class was found from a private Muslim school in British Colombia, Canada, and the class teacher was contacted. After having the context and the research aims explained to her, she agreed to take part in the project and an agreement was made .

**Quasi-Experimental Design:**

In order to investigate the effects of the Keypal project, a quasi-experimental design has been used. Like experimental designs, this involves the manipulation of an independent variable in order to test the effects of a treatment. Also, similar to traditional experimental designs, the main component of the design is a pre-test of the students’ ability, followed by the intervention for the experimental group (the Keypal project) and no intervention for the control group, and then a post-test in order to see the results of the systematic manipulation of the factor being studied (Hartas 2010 ).

**Results and Data Analysis:**

**Pre-Test and Post-Test Results**

Once the learners had completed the pre- and post-tests they were corrected and a total score was given. This score was then converted to a percentage, in other words, a score out of 100. The results of the pre- and post-test for the two groups can be seen below in table 4.1, along with the mean scores for each test.

**Table (4.1)Total results of the pre-and post-tests expressed out of 100**

student	Keypal group		Non-keypal group	
	pre-test	post-test	pre-test	post-test
1	53	76	48	52
2	61	78	59	64
3	67	87	72	75
4	60	86	53	52
5	54	61	39	46
6	58	71	78	80
7	63	87	56	60
8	62	86	43	50
9	45	71	56	56
10	36	63	47	42
Mean	55.9	76.6	55.1	57.7

From these results it can be seen that the Keypal group seem to have improved their scores to a greater extent than the non-Keypal group. As can be seen, both the groups have similar mean test scores for the pre-test, where the Keypal group has a mean score of 55.9 and the non-Keypal group has a mean score of 55.1. However, the mean score of the Keypal group’s tests has improved to 76.6 percent, that is, an increase of 20.7 percent whereas the mean score of the non-Keypal group has improved to 57.7 percent, that is, by only 2.6 percent.

In addition, the results were separated into reading and writing scores and these were also converted to percentages. The reading pre- and post-test results can be seen in table 4.2.

**Table (4.2) Reading results of the pre-and post-tests expressed out of 100**

student	Keypal group		Non-keypal group	
	pre-test	post-test	pre-test	post-test
1	50	80	50	56
2	62	86	62	66
3	70	94	74	78
4	70	96	56	60
5	68	66	42	56
6	66	76	86	90
7	72	94	60	64
8	74	90	50	52
9	54	82	60	64
10	40	72	56	60
<b>Mean</b>	<b>62.6</b>	<b>83.6</b>	<b>59.6</b>	<b>64.6</b>

As can be seen from table 4.2, while both groups improved their reading scores, the Keypal group seems to have improved more substantially as the mean score for this group has risen by 21 percent whereas the non-Keypal group’s mean score has increased by just 5 percent.

The writing pre- and post-test scores can be seen below in table 4.3.

Table (4.3) Writing results of the pre-and post-tests expressed out of 100

student	Keypal group		Non-keypal group	
	pre-test	post-test	pre-test	post-test
1	56	72	46	48
2	60	70	56	58
3	64	80	70	72
4	50	76	50	50
5	40	56	36	38
6	50	66	70	68
7	54	80	52	56
8	50	82	36	40
9	36	60	52	54
10	32	54	38	38
<b>Mean</b>	<b>49.2</b>	<b>69.6</b>	<b>50.6</b>	<b>52.2</b>

As can be seen, both groups increased their score again, with the Keypal group increasing the mean score more than the non-Keypal group. However, the writing scores increased slightly less than the reading scores, with the Keypal group increasing their mean score by 20 percent and the non-Keypal group increasing by 1.6 percent.

#### T-Tests:

The independent test is used when there is no relationship between the two groups being compared. This is the case in this study when comparing the pre-tests of the two groups with each other and the post-tests of the two groups with each other. The dependent test is used when the two groups are matched or tested twice. This type of t-test has been used when comparing the pre- and post-test of each group.

Firstly, in order to determine whether there was any statistical significance between the two groups' pre-test scores, an independent t-test has been carried out to compare the results.

Table (4.4) Independent sample t-test of the total pre-test scores

Group	<i>N</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
Keypal	10	55.90	9.34	18	0.1641	0.8714
Non-Keypal	10	55.10	12.26			

An independent t-test was used to determine the difference in total pre-test scores between the two groups. The results in table 4.4 show that there is no significant difference between the mean scores of the two groups with the significance level of  $p < 0.01$  as  $p$  can be seen to be 0.8714.

Similar t-tests were carried out for the separated reading and writing scores.

**Table (4.5) Independent sample t-test of the reading pre-test scores**

Group	<i>N</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
Keypal	10	62.60	11.12	18	0.5644	<b>0.5794</b>
Non-Keypal	<b>10</b>	<b>59.60</b>	<b>12.61</b>			

**Table (4.6) Independent sample t-test of the writing pre-test scores**

Group	<i>N</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
Keypal	10	49.20	10.34	18	0.2737	<b>0.7874</b>
Non-Keypal	<b>10</b>	<b>50.60</b>	<b>12.44</b>			

As can be seen from tables 4.5 and 4.6, the difference between both the reading and writing pre-test scores between the two groups is not statistically significant as  $p$  is equal to 0.5794 and 0.7874 respectively.

Next, an independent t-test was carried out on the post-test results to determine whether there was any statistical difference between the scores. These results are shown in table 4.7 for the total score, and tables 4.8 and 4.9 show the separated reading and writing scores respectively.

**Table (4.7) Independent sample t-test of the total post-test scores**

Group	<i>N</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
Keypal	10	76.60	9.92	18	3.7897	<b>0.0013</b>
Non-Keypal	10	57.70	12.26			

**Table (4.8) Independent sample t-test of the reading post-test scores**

Group	<i>N</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
Keypal	10	83.60	10.19	18	3.9233	<b>0.0010</b>
Non-Keypal	10	64.60	11.43			

**Table (4.9) Independent sample t-test of the writing post-test scores**

Group	<i>N</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
Keypal	10	69.60	10.28	18	3.5050	<b>0.0025</b>
Non-Keypal	<b>10</b>	<b>52.20</b>	<b>11.87</b>			

As can be seen in the above tables, the t-test comparing the results of the post-tests shows that there is a significant difference between the mean results of the Keypal and non-Keypal groups as  $p < 0.01$  for the total scores and the separated reading and writing scores. Therefore, it can be said that the Keypal group showed a significant increase in their post- test scores when compared with the non-Keypal group.

Next, in order to determine whether there was any significant difference between the pre- and post-test scores of each of the groups when compared against each other, a paired t-test was carried out. Below are the results for the Keypal group.

**Table (4.10) Paired t-test of the Keypal group’s total pre- and post-test scores**

Keypal Group	<i>N</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
Pre-test	10	55.90	9.34	9	10.0200	<b>0.0001</b>
Post-test	<b>10</b>	<b>76.60</b>	<b>9.92</b>			

**Table (4.11) Paired t-test of the Keypal group’s reading pre- and post-test scores**

Keypal Group	<i>N</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
Pre-test	10	62.60	11.12	9	6.3967	<b>0.0001</b>
Post-test	10	83.60	10.19			

**Table (4.12) Paired t-test of the Keypal group’s writing pre- and post-test scores**

Keypal Group	<i>N</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
Pre-test	10	49.20	10.34	9	9.6960	<b>0.0001</b>
Post-test	<b>10</b>	<b>69.60</b>	<b>10.28</b>			

As can be seen from the above tables, the paired t-tests show that the Keypal group showed statistically significant increases in their post-test scores as compared with their pre-test scores for the total scores and the separated reading and writing scores.

Similarly, the non-Keypal group’s pre-and post-test scores were compared using a paired t- test, and the results can be seen below.

**Table (4.13) Paired t-test of the non-Keypal group’s total pre- and post-test scores**

Non-Keypal Group	<i>N</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
Pre-test	10	55.10	12.26	9	2.1939	<b>0.0559</b>
Post-test	10	57.70	12.26			

**Table (4.14) Paired t-test of the non-Keypal group’s reading pre- and post-test scores**

Non-Keypal Group	<i>N</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
Pre-test	10	59.60	12.61	9	4.7916	<b>0.0010</b>
Post-test	10	64.60	11.43			
<b>Table (4.15) Paired t-test of the non-Keypal group's writing pre- and post-test scores</b>						
Non-Keypal Group	<i>N</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
Pre-test	10	50.60	12.44	9	2.7530	<b>0.0224</b>
Post-test	<b>10</b>	<b>52.20</b>	<b>11.87</b>			

From the above results it can be seen that there is no significant difference between the non-Keypal group's total pre- and post-test scores as  $p$  is 0.0559 or between the writing scores as  $p$  is 0.0224. However, there is a statistically significant difference in their reading scores with  $p < 0.01$  but this difference is not as significant as with the Keypal group.

### Results from the Pupil Interviews:

The 10 pupils who participated in the Keypal project were individually interviewed about their perceptions of the project and, as described in the previous chapter, I recorded their responses to the questions. These records were then written and categorized into common themes. The results are presented under the same headings as those in the question prompts, that is, behavior, language, cultural knowledge and motivation / enjoyment.

#### Behavior

Of the 10 pupils who participated in the project, 8 said that they wrote to their partners once a week during the assigned time (non-curriculum activity on Sundays) and completed all the assignments, 1 said that they wrote more often as they used their own computer to write to their friend, and 1 student did not attend the assigned meeting on 2 occasions and therefore missed these two correspondences. Of the eight pupils who completed all the assignment, 6 said that they received a reply to every email, 1 pupil received 6 replies and 1 pupil received only 3 replies. The pupil who sent more than the required emails in turn received more replies, and the pupil who missed two assignments received 6 replies in total, one to each email sent. The number of emails sent and received is summarized below in table 4.16.

Table (4.16) Number of emails sent and received by pupil

Pupil	Number of sent emails	Number of received emails
1	8	8
2	8	8
3	8	6
4	8	8
5	15	13
6	8	8
7	8	8
8	8	8
9	6	6
10	8	3
<b>Total</b>	<b>85</b>	<b>76</b>

These totals were checked against the records of the sent and received emails and were found to correspond. As can be seen, the Saudi pupils sent more emails than the Canadian pupils, but this is perhaps not surprising given that the Saudi pupils had to instigate the communication.

When asked about the amount of time spent on writing emails, 7 of the 10 pupils said that they only used the time provided in the school meetings, 2 pupils said that they wrote some of the emails by hand at home and then used the time in the school non curriculum activity to read and type their email, and 1 pupil, the girl who sent extra emails, said that she spent about 2 hours a week in addition to the 1 hour meeting on writing and reading her emails.

### Language

The pupils were asked questions about if and how they thought the project had helped their English language skills. 8 out of 10 of the pupils said that they thought their language skills had improved because of the emails (this is can be clearly observed in appendix 3) and 2 were not sure. However, the pupils found it hard to express how their skills had improved. Some of the comments focused on understanding.

### Cultural Knowledge

The next section of the interview focused on the cultural knowledge that the pupils gained from communicating with their partners. The overwhelming theme which emerged from the interviews was the

similarities and common ground the pupils found between themselves rather than the cultural differences between them.

### **Motivation / Enjoyment**

The final part of the interview focused on the pupils' enjoyment of the project and their motivation to continue. All of the pupils said that they had enjoyed participating in the project and would like to do a similar project in the future. The things that they mentioned that they liked about the project were making a new friend, using the computers, practicing English and learning about another country. When they were asked about what they did not like about the project, 6 of the pupils said they liked it all, 2 pupils mentioned that they did not like having to write about the topic the teacher gave and 1 pupil said she did not like having to do everything in English all the time and wished she could have written some words in Arabic. Pupil 10 who did not receive many replies said that she had not enjoyed the project very much because it was a lot of work and she was disappointed when everyone else had emails and she did not.

### **Discussion:**

The following research questions were posed at the beginning of the study:

- 1- Are there any significant differences in the overall pretest and posttest scores of a group of children participating in a Keypal project and a similar group who do not participate?
- 2- Are there any significant differences in the pretest and posttest reading scores of a group of children participating in a Keypal project and a similar group who do not participate?
- 3- Are there any significant differences in the pretest and posttest writing scores of a group of children participating in a Keypal project and a similar group who do not participate?
- 4- What are the participating children's attitudes towards the Keypal project?
- 5- What are the participating teachers' attitudes towards the Keypal project?

These questions will now be examined and discussed in turn:

### **Research Question 1**

As was shown in the previous chapter, there were significant differences between the mean post-test results of the children's communicative reading and writing ability between the 10 children who participated in the email project and the 10 children who did not participate. In addition, there was a significant difference between the Keypal group's mean pre- and post-test scores whereas there was not a significant difference between the non-email group's mean pre- and post-test scores.



### **Research Question 2**

These results indicate that the Keypal project helped the participating pupils to improve their reading scores significantly more than the non-participating pupils over the term. The fact that the non-Keypal group also improved their reading scores could be explained by the fact that they had had a term of English language classes between the pre- and the post-test, therefore it is understandable that they significantly improved their mean reading score during this time.

### **Research Question 3**

The results showed that there were no significant differences between the two groups' mean pre-test scores, but there was a significant difference between their mean post-test writing scores with the Keypal group outperforming the non-Keypal group. When comparing the inter-group mean pre- and post-test scores it was found that there was no significant difference for the non-Keypal group but the Keypal group significantly increased their mean writing scores. These results indicate that the Keypal project helped the participating pupils increase their writing skills more than the non-participating pupils over the school term.

### **Research Question 4**

Overall, the pupils' attitudes towards the Keypal project were positive. In general, the pupils thought that they had improved their language skills through participating in the project. However, one student who did not receive as many replies as the other pupils was less motivated to participate. This can be attributed to the fact that the partners were in many ways more similar to the pupils than different as both groups came from a Muslim background and therefore had a common culture joining them.

### **Research Question 5**

Like the pupils, the teachers were also positive about the project. The Saudi teacher mentioned that she thought the Keypal group of pupils had become more autonomous learners through their participation in the project. This is in agreement with other researchers' views that the use of CMC can promote learner autonomy. In addition, she felt that the project had particularly benefited the weaker students as they had gained in confidence and were more likely to participate and speak in class.

However, from a motivation point of view, they both said that communicating with a person from another country was a positive experience. Alternatively, the Canadian children may just have been excited and motivated by the communication with a person from another country.

## **Conclusion:**

A number of implications may be drawn from the findings of this research.

Firstly, it can be seen that Keypal project could be a useful addition to the curriculum in this school as they may help these learners to develop their language skills. Given that for language learning to be successful learners need as much exposure to the language as possible, and the exposure to English outside the classroom in Saudi Arabia is quite low, projects such as these would seem to provide learners with increased opportunities to encounter authentic language in a communicative manner.

Secondly, the results of this study suggest that Keypal projects may help to motivate learners to study English. Motivation is considered to be a mitigating factor in foreign language learning and without it, it is hard for language learning to take place (Ellis 2005). Some of the pupils in this study began to view the learning of English in a different light after their participation and saw for the first time that English was not just a subject to be studied at school, but a real-life skill which allowed them access to communicate with people around the world. In an EFL context such as Saudi Arabia where there are few opportunities to interact in the target language outside the classroom, Keypal projects could become a motivating force for elementary school students as they will allow learners to see the value of learning another language.

Finally, while this project did not necessarily increase the learners' intercultural knowledge, there was still value in the interaction which occurred between the Saudi and Canadian pupils. The pupils were able to find their similarities and relate to each other though these, a valuable skill in a multi-cultural world. While in many schools in Saudi Arabia cultural concerns may dictate the partners which can be chosen in Keypal projects, and these partners may have to be from similar religious backgrounds that does not mean that the pupils will not still gain valuable understanding of the world and be able to relate to people from other countries.

## **Suggestions for Further Research:**

In order to further investigate this topic, a number of avenues of further research could be taken. Firstly, this study could be replicated in other schools in Saudi Arabia and with other grades in order to see whether the same results are obtained. In addition, Keypal projects could be investigated in boys' schools to see whether gender has any effect on the results.

Further studies could also be carried out into the language produced in the emails. One of the benefits of CMC is that it provides a permanent record of the language being used and this could be used to investigate in what ways language use is improved over the period of the project. For example, lexical density could be studied to see if learners acquire new vocabulary by analyzing the words used in the emails, or the complexity

of language could also be investigated to see if Keypal projects in this context help with learners acquiring new structures.

Finally, as the teacher in this study noted an increased willingness for some of the pupils to speak in class after participating in the project, it might be interesting to look at how Keypal projects can develop pupils' oral communicative competence. This could be done by conducting a similar study but substituting the reading and writing pre- and post-test for an oral test.

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