

APPENDICES

APPENDIX – A

LIST OF GRAMMAR TEACHING POINT

APPENDIX - A

LIST OF GRAMMAR TEACHING POINTS

	UNIT	Grammatical points covered under the unit
1	Stories from the Panchtantra	<i>(Complete the following dialogue, Use of Past Tense)</i>
2	Life – Their School	<i>(Use of ‘Therefore’, ‘So’ and ‘Because’)</i>
3	Quiz Time	<i>(Use of Phrases – E.g.: By the way, come on, etc.) (Look the Picture and prepare dialogue) (Use of proper expression in the sentences) (Use of Interrogative words like what, when, who, where, et.)</i>
4	Money Matters	<i>(Use of ‘How Much, How Many, Few, A Few, Little, A little’)</i>
5	The Grandmaster	<i>(Use of ‘Simple Past Tense’, ‘Past Continuous and ‘Paragraph writing’)</i>
6	Cheetah’s Tears	<i>(Use of ‘Simple Past Tense’ and ‘Story Writing’)</i>
7	26th January 2001	<i>(Use of different forms of verb)</i>
8	Reduce Waste	<i>(Use of Past Perfect Tense)</i>
9	Uncle Ken at the wicket	<i>(Use of Past Perfect Tense)</i>
1	The Blue Whale	<i>(Interrogative words and Prepositions)</i>
11	Let’s Laugh	<i>(Question Tag)</i>
12	The Experiment	<i>(Degrees of Comparison)</i>
13	Adolescents Speak	<i>(Adverb Clause of Results—So...that, Such...that)</i>
14	How it Works	<i>(Question Tag)</i>
15	The Gift	<i>(Subordinates Conjunctions—‘After’, ‘Although’, ‘As’, ‘Because’, ‘Than’, ‘If’, ‘Before’, ‘While’, ‘Till’, ‘When’, ‘Since’) (Correlative Conjunctions — ‘Either...or’, ‘Neither...nor’, ‘Both...and’, ‘Whether...or’) and (Interjections)</i>
	Supplementary Reading :	
1	Magic in Fantaland	<i>(Use of tenses in Story Telling – ‘Simple Past’, ‘Continuous Past’ and ‘Past Perfect’)</i>
2	Thank you, Bozo	<i>(Use of ‘Simple Past Tense’ and ‘Prepositions’)</i>

3	The Fun They Had	<i>(Use of 'Simple Past Tense' and 'Conjunctions')</i>
4	The Sidewalkers	<i>(Use of 'Simple Present Tense' and 'Conjunctions')</i>
5	Butter Finger	<i>(Use of 'Simple Past Tense' and 'Present Perfect Tense')</i>
	Poems :	
1	Growing Smiles	<i>(Use of Simple Present Tense)</i>
2	Rain in the Summer	<i>(Use of Exclamatory Sentences)</i>
3	Storm	<i>(Use of 'Simple Past Tense' and 'Prepositions')</i>
4	Washing	<i>(Use of Correlative Conjunctions — 'Either...or', 'Neither...nor', 'Both...and', 'Whether...or')</i>
5	Then Laugh	<i>Conjunctions</i>
6	The Vagabond	<i>(Use of 'Let', 'Simple Present Tense' & 'Conjunction')</i>

APPENDIX – B

LIST OF TEACHERS FOR AN INTERVIEW

APPENDIX - B
LIST OF TEACHERS FOR AN INTERVIEW

Sr. No.	Name of a Teacher	Name of the institution
1	Dr. Bhavin Chauhan	Assistant Professor, Department of Education, The M. S. Uni. of Baroda, Vadodara
2	Mr. Pravin Parmar	Assistant Teacher, Zenith School, Pratapnagar, Vadodara
3	Mr. Girish C. Solanki	Assistant Teacher, Jai Ambe School, Karelibaug, Vadodara
4	Mr. Nitesh Thakar	Assistant Teacher, Vakal Vidhyalaya, Bajwa, Vadodara
5	Mr. Dipak Parikh	Principal, Baroda High School, ONGC, Vadodara
6	Mr. Jashvant Sutaria	Assistant Teacher, Vakal Vidhyalaya, Bajwa, Vadodara
7	Mr. Alpesh Parmar	Assistant Teacher, Narayan Vidhyalay, Vadodara
8	Mr. Hemant G. Bariya	Assistant Teacher, Narayan Vidhyalay, Vadodara
9	Mrs. Manish C. Dabhi	Assistant Teacher, Narayan Vidhyalay, Vadodara
10	Mrs. Geetaben P. Rathwa	Assistant Teacher, Narayan Vidhyalay, Vadodara
11	Mrs. Lata J. Rathva	Assistant Teacher, Vallabh Vidyamandir, Vadodara
12	Mr. Arun R. Prajapati	Assistant Teacher, Navpad Sarvajanic High School, Dabhoi, Vadodara.
13	Mr. Hareshbhai K. Patil	Assistant Teacher, Sharda Mandir High School, Gundicha, Chhotaudepur.
14	Mrs. B.A. Patel	Assistant Teacher, Shree Mahireva, Bajwa, Vadodara
15	Mr. Hemant Koli	Assistant Teacher, Eklavya Model Residential School, Linda Tekra, Naswadi, Chhotaudepur.
16	Mr. Virendra Rathva	Assistant Teacher, Shreyas School, Manjalpur, Vadodara

APPENDIX – C

SEMI STRUCTURED INTERVIEW SCHEDULE

પ્રશ્ન-૪: ધો.-૯ના અંગ્રેજી વ્યાકરણના કયા મુદ્દાઓ ઉપલા ધોરણો(ધો. ૧૦, ૧૧, ૧૨) માં વિકાસાત્મક આવર્તન પામે છે?

પ્રશ્ન-૫: આપના મતે ધો.-૯ ના અંગ્રેજી વ્યાકરણના કયા મુદ્દાઓ વિદ્યાર્થીઓને વધુ સરળ લાગે છે?

પ્રશ્ન-૬: આપના મતે ધો.-૯ ના અંગ્રેજી વ્યાકરણના કયા મુદ્દાઓ વિદ્યાર્થીઓને વધુ કઠીન લાગે છે? શા માટે?

પ્રશ્ન-૭: ધો.-૯ના અંગ્રેજી વ્યાકરણના શિક્ષણને વધુ રસપ્રદ બનાવવા આપ કેવી યુક્તિ- પ્રયુક્તિ અજમાવો છો? તેનું શું પરિણામ જોવા મળે છે? (તેની અસરકારકતા અંગે આપ શું માનો છો?)

પ્રશ્ન-૮: વિદ્યાર્થીઓને કઠીન લાગતા ધો.-૯ના અંગ્રેજી વ્યાકરણને વધુ સરળ બનાવવા કેવા નૂતન/નવીન અભિગમ અપનાવી શકાય? (યાદી દર્શાવો)

પ્રશ્ન-૯: અંગ્રેજી વ્યાકરણ શીખવવામાં સામાન્ય રીતે આપને કઈ કઈ મુશ્કેલીઓ નડે છે?

APPENDIX – D

**SCRIPTS ON
DIFFERENT
TEACHING POINTS
COVERED
UNDER CAI**

APPENDIX - D

SCRIPTS ON DIFFERENT TEACHING POINTS COVERED UNDER CAI

1. ARTICLES (A, An, The)	
<p>Scene-1</p> <p>- IMAGES -</p> <p>Teacher's image with students in the class.</p>	<p>(Teacher is giving instruction regarding school picnic)</p> <p>Teacher: Our school has organized one day school picnic to Nareshwar next month. Interested students should bring a consent letter from their parents. (School bell rang)</p>
<p>Scene-2</p> <p>Chinki and Pintu meet in the school ground during the recess (wears school uniform)</p>	<p>Pintu: Hi! Chinki. Have you heard about the school picnic?</p> <p>Chinki: Oh! Yes, I am really excited to join. Where are we going?</p> <p>Pintu: Nareshwar, at the bank of the river Narmada. (imagine about the place-put images of Nareshwar & Narmada river)</p> <p>Chinki: Wonderful! We will enjoy the nature. I have an idea. Let's make a plan for it.</p> <p>Pintu: O.K. I will bring a water bottle, a pen, a diary, some snacks. (suddenly he reminds something) Oh! Yes, it's the rainy season. Can you manage an umbrella?</p> <p>Chinki: Of course. I will also manage a camera, a first-aid box and a video game.</p> <p>Pintu: Nice, the breakfast and the lunch will be given there.</p> <p>(School bell rang & Recess is over,)</p> <p>Chinki: O.K. Pintu, see you again.</p>

2. PREPOSITIONS (In, on, under, to, at, in, into, between, among, etc.)	
<p>Scene-1</p> <p>-IMAGES-New Society 'Sun Residency' near Kutub Minar.</p> <p>- Chinki has invited her cousin Pintu in Delhi.</p> <p>- Chinki receives Pintu at society's gate.</p> <p>- Pintu comes out from a Taxi.</p>	<p>Chinki: Hi! Pintu.</p> <p>Pintu: Hi! Chinki.</p> <p>Chinki: I am happy to see you in Delhi. (Pointing her new house) Look at our new house in Sun Residency. It is near Kutub Minar. (Then they are walking towards the house, loan both side the road, garden, near the house)</p> <p>Pintu: See the terrace! How a group of birds are flying! (Dish TV, terrace garden, birds flying)</p> <p>Chinki: (Reached at a gate) now we are in front of our new house.</p>
<p>Scene-2</p>	<p>(enter into the drawing room)</p> <p>Pintu: (looking at a cultural painting on the wall, wall clock, fan) This painting is looking very beautiful on this wall.</p> <p>Chinki: Yes, it is based on the culture of Rajasthan.</p> <p>Pintu: This corner is very beautiful between two sofas. This dining table looks attractive among the chairs. (passes through a kitchen towards terrace)</p>
<p>Scene-3</p>	<p>Chinki: Pintu now come with me on terrace. (on the terrace, they are taking view of the terrace)</p> <p>Pintu: Is there any shopping mall nearby?</p> <p>Chinki: Yes, it is just across the road. (pointing to shopping mall)</p>
<p>Scene-4</p>	<p>Pintu: It's really a very beautiful place. (Return to drawing room)</p> <p>Chinki: Pintu, please, switch off the fan. (come outside the house)</p> <p>Pintu: Chinki, this is a small gift for you (Pintu gives a gift from his pocket)</p> <p>Chinki: So nice of you.</p>

3. Conjunction (and, but, so, because, either...or, neither...nor, etc.)

Situation: Pintu and Chinki meet on the sea shore while jogging. And dialogues go on.

Scene	Dialogues
<ul style="list-style-type: none"> • પીંટુ અને ચીંકી દરિયા કિનારે દોડતા હોય છે ત્યારે મળે છે. 	<p>Pintu: Hi! Chinki. Have you completed your breakfast? Chinki: Yes, Pintu. I have completed my breakfast. Pintu: What did you have in your breakfast? Chinki: I have eaten bread and butter.</p>
<ul style="list-style-type: none"> • ચાલતાં-ચાલતાં વાતો કરે છે. 	<p>Pintu: Did you drink a glass of milk? Chinki: Yes, I drank but I could drink only half a glass. And do you like to drink milk?</p>
<ul style="list-style-type: none"> • આજુ-બાજુ નાળીયેર પાણીની લારીઓ ઉભેલી હોય છે. 	<p>Pintu: No, I neither drink tea nor milk. Chinki: Why? Pintu: Because, I like to drink fruit juice only.</p>
<ul style="list-style-type: none"> • દરિયામાં બે-ત્રણ બોટ ચાલી રહી હોય છે. 	<p>Pintu: OK then, Shall we go to play? Chinki: Yes but we will either go to play table tennis or badminton. Pintu: OK, Chinki. Let's go.</p>

4. Quantifiers (little, a little, few, a few, anything, many, some, etc.)	
Situation: Chinki comes at Pintu's home because they have planned to go to Indian Market.	
Scene	Dialogues
<ul style="list-style-type: none"> Chinki has a purse She comes to Pintu's home Pintu is taking his breakfast Chinki enters into Pintu's home Pintu offers coffee 	<p>Chinki: Hi! Pintu, How are you? Pintu: I am fine. What about you? Chinki: I am fine, too. Pintu: Will you have some coffee? Chinki: No thanks. Are you ready? Pintu: For what? Chinki: You forget? We have planned to go to Indian Market today. It's 11 o'clock. Hurry up; there's little time left! Pintu: Ahh! I am ready. Let me take my bag.</p>
<ul style="list-style-type: none"> Chinki & Pintu come out of the home. They go by cycle. They reached in Indian Market. They park their bicycles at cycle stand. They are walking and shops are on both sides. They reach at Maharaja Store. 	
<ul style="list-style-type: none"> Enters into the store see the antique items and other things in a shop like (observing each item carefully), - flower vase, pots, wall clocks, furniture, lamps, etc. 	<p>Pintu: What are you looking for? Chinki: Oh I'm just looking for some antiques in this store. Pintu: Have you found anything yet? Chinki: Well there seems to be few things of interest.</p>
<ul style="list-style-type: none"> Seeing the antique furniture 	<p>Pintu: How many antique furniture do you think there are? Chinki: Oh! I'd say there must be several. However, only a few are really worth but having the high price.</p>
<ul style="list-style-type: none"> Come out from store COFFEE HOUSE is to opposite the store pointing finger towards COFFEE HOUSE 	<p>Pintu: We have a little time to spare, so let's stop and have a cup of coffee. Chinki: Sure I'd love to have one. I could use a few minutes of break time. Pintu: Great, let's go over there. (by pointing to COFFEE HOUSE)</p>

5. WH - questions (what, who, where, whom, where, when, etc.)	
Situation: Chinki comes to Pintu's home. Pintu is going to participate in Role play competition at school level. Chinki helps Pintu in performing a role of doctor by mugging up the dialogue.	
Scene	Dialogues
<ul style="list-style-type: none"> • Chinki comes to Pintu's home. • Pintu is going to participate in school competition . • He is practicing to play a role of doctor by mugging up the dialogue of a doctor. • Speaking a dialogue repeatedly. (Give pause) • Having a script in his hand. 	<p>Chinki: Good morning Pintu, how are you? Pintu: Good morning, I am fine. What about you? Chinki: I am fine too. Why didn't you come yesterday? Pintu: Sorry, yesterday I was busy. Chinki: What are you doing now? Pintu: I am rehearsing for the role play of a doctor in the competition. Will you please help me by performing as a patient? Chinki: Hhmmm . . . OK. When will you perform? Pintu: I'll perform on next Monday. Chinki: I will help you but only on one condition. Pintu: What is that? Chinki: You will have to give me a party. Pintu: What do you want? Chinki: I want pizza party. Pintu: Oh ! Why not. I will surely give you a pizza party, Chinki. Pintu: OK. Then let's start. As a doctor, I will ask you some questions. And you have to answer. First you go out of the room, knock on the door and enter as a patient.</p>
<ul style="list-style-type: none"> • Pintu wears apron & Chinki goes out of the room and knocks on the door. 	<p>Chinki: May I come in doctor? Pintu: Yes, you may come in. Chinki: Good morning doctor. Pintu: Good morning. Tell me, What can I do for you? Chinki: Doctor, I doubt that I have Malaria. Pintu: Hmmm . . . Why do you think so? (Pause) What are the symptoms do you have? Chinki: Because I am feeling very much tired. I had a headache, vomiting and I felt cold last night. Because... Pintu: Wait, wait, wait. Let me diagnose through blood test. (લખતા-લખતા બોલે છે.) Take this and go to the medical laboratory. (બ્લડ ટેસ્ટનું કાગળ લખીને સામે ધરે છે.) Chinki: Where is it? Pintu: It is near the crossroads. Chinki: To whom should I contact in a laboratory? Pintu: There may be a doctor who will take your blood sample for testing. Chinki: OK. Thank you doctor.</p>

6. Question Tag	
Situation: Pintu and Chinki sit in a dining hall. Pintu wants to watch a T.V. But Chinki is busy in reading books so she refuses and.....	
Scene	Dialogues
<ul style="list-style-type: none"> • પીટુ અને ચીંકી હોલમાં સોફા ઉપર સાથે બેઠાં છે. • કેલેન્ડર ટી.વી. ની પાસે લટકાવેલું હોય છે. • ચીંકી વાંચી રહી હોય છે. 	<p>Pintu: It's Sunday today, isn't it?</p> <p>Chinki: Yes, it is.</p> <p>Pintu: Will you turn on the television?</p> <p>Chinki: No, you can turn it on yourself, can't you?</p> <p>Pintu: You are never nice to me, are you?</p> <p>Chinki: You are just lazy. You can see I am busy, can't you?</p> <p>Pintu: Busy! I don't call reading a stupid book busy. Anyway, you have read it before, haven't you?</p> <p>Chinki: That's none of your business, is it? I can read what I like, can't I?</p>
<ul style="list-style-type: none"> • પીટુ જાતેજ ઊભો થઈને ટી.વી. ચાલુ કરે છે. • ટી.વી.ની સ્ક્રિન પર ગઝલ વાગતું દ્રશ્ય. • તે જોઈને પીટુ બોલે છે. 	<p>Pintu: Alright, I'll turn the television on. Pass me the remote control.</p> <p>Chinki: You should not be watching this programme on 'Gazals', should you? You are disturbing me.</p> <p>Pintu: Oh! Really! Am I disturbing you?</p>
<ul style="list-style-type: none"> • ગુસ્સામાં બોલે છે. 	<p>Chinki: Go and watch it in your bedroom. (with anger)</p> <p>Pintu: OK. Now, don't expect me back until closing time, do you? Good bye.</p>

7. Types of sentences (Declarative, Interrogative, Exclamatory and Imperative Sentences)	
Situation: Pintu is watching T.V. And Chinki comes to meet Pintu. Pintu welcomes her.	
Scene	Dialogues
<ul style="list-style-type: none"> • Pintu is watching T.V. • Door is open & T.V. is besides the door. • Chinki comes to meet Pintu. • Pintu welcomes her. • Chinki sits on a sofa. 	<p>Pintu: Hey ! Chinki.</p> <p>Chinki: Hi ! Pintu.</p> <p>Pintu: Sit down.</p> <p>Chinki: It's OK. How beautiful your house is!</p> <p>Pintu: Oh! Thanks.</p> <p>Pintu: Where is your mother?</p> <p>Chinki: She has gone to the market to buy some fruits.</p> <p>Pintu: Will you take tea or coffee?</p> <p>Chinki: No thanks. Fetch me a glass of water, please.</p> <p>Pintu: OK</p>
<ul style="list-style-type: none"> • પીટુ ચીંકી માટે પાણી લાવે છે. • ચીંકી પાણી પીવે છે અને પીટુને પૂછે છે. • બંને સાથે ગૃહકાર્ય કરે છે. • પીટુ લખતો હોય છે. 	<p>Chinki: Do you have your homework ready?</p> <p>Pintu: No, I haven't done.</p> <p>Chinki: Why? What is the reason?</p> <p>Pintu: I felt it very difficult.</p> <p>Chinki: May I help you to complete it ?</p> <p>Pintu: Yes, of course. (Both are doing homework together)</p> <p>Chinki: Did you get it ?</p> <p>Pintu: Oh! Yes. How simple it is ! Thank you so much Chinki.</p> <p>Chinki: It's OK. Bye. We'll meet in school.</p> <p>Pintu: Bye.</p>

8. Modal Auxiliaries (can, could, may, might, will, would, should, etc.)	
Situation: On holiday, Pintu goes to buy a gift for his friend from a shopping mall. There Pintu meets to Chinki.	
Scene	Dialogues
<ul style="list-style-type: none"> • પીટુ અને ચીકી શોપીંગ મોલમાં મળે છે. 	<p>Chinki: Hi ! Pintu. Are you here for shopping? Pintu: Yes, I want to buy number of things and that may be available here. You know, Neha has invited me on her birthday. Hence, I ought to buy a present. What should I gift her?</p>
<ul style="list-style-type: none"> • બંને દુકાન શોધતા આગળ ચાલતા જાય છે. 	<p>Chinki: I think backpacks. (searching shop for backpacks) The shop must be in that corner.</p>
<ul style="list-style-type: none"> • દુકાને સામે જોઈને બોલે છે. • ચીકી દુકાન સામે આવીને ઉભી રહે છે • દુકાનના બેનર સામે જુએ છે. • પીટુ તરફ જાઈને બોલે છે. 	<p>Chinki: Yes, here we are, and I can see now what you want. (બેગપેકની દુકાન જોઈને કહે છે.) Pintu: (See two three bags and select one) How much? Shop keeper: Five hundred rupees only. Pintu: OK. Take it. (દુકાનદારને પૈસા આપે છે.) Chinki: Now let's go to the first floor. I want to buy shoes. Pintu: OK.</p>
<ul style="list-style-type: none"> • બંને escalator પર પગ મૂકી આજુ બાજુ નજર કરે છે. • 3rd floor તરફ ઉપર નજર જાય છે. • 3rd floor નું પાટીયું દેખાય છે. • ઉપર ચઢી રહ્યા હોય છે. ત્યારે વાર્તાલાપ થઈ રહ્યો હોય છે. 	<p>Chinki: What is there on the 3rd floor? Pintu: There may be a multiplex. (ઉપર આંગળી કરીને બતાવે છે.) Chinki: Yes, now we are on the 1st floor. (માથુ હકારમાં હલાવે છે.)</p>
<ul style="list-style-type: none"> • 1st floor ની લોબીમાં escalator થી ઉતરે છે. • 1st floor પર અલગ અલગ દુકાનો જુએ છે 	
<ul style="list-style-type: none"> • જૂતાની દુકાને ઉભા રહે છે • ચીકી પીટુને હાથ કરી સફેદ બુટ બતાવે છે. 	<p>Chinki: Do you like those white shoes? (સામેની રેકમાં પડેલા અલગ અલગ જૂતાઓમાં પડેલા સફેદ જૂતા તરફ આંગળી કરીને બતાવે છે.) Pintu: I like them very much, indeed. They are perfect for summer wear. Chinki: Do you think they may fit me? Pintu: You should try.</p>

9. Degrees of Comparison	
<p>Situation: ચીંકી ઉદાસ ચહેરે તેના મકાનના ઓટલા પર હિંચકા ઉપર બેઠી છે. પીંટુ બાગમાં રમી રહ્યો છે. પીંટુ તેની પાસે જઈને તેની ઉદાસીનું કારણ પૂછી રહ્યો છે.</p>	
Scene	Dialogues
<ul style="list-style-type: none"> ચીંકી ઉદાસ ચહેરે તેના મકાનના ઓટલા પર હિંચકા ઉપર બેઠી છે. (બાજુમાં સોસાયટી નો બાગ છે) પીંટુ બાગમાં રમી રહ્યો છે. પીંટુ તેની પાસે જઈને પૂછે છે. 	<p>Pintu: Hi! CHINKI. What happened? Why are you looking so sad?</p> <p>Chinki: Oh! Actually, I lost my ball.</p> <p>Pintu: You lost your ball again. Don't worry. I have many balls in my room. You can take this small ball. (પીંટુ ચીંકીને ટેનીસ બોલ આપતા કહે છે.)</p> <p>Chinki: It is smaller than my ball.</p> <p>Pintu: OK. Wait, I come with a big ball.</p>
<ul style="list-style-type: none"> પીંટુ બીજા બે બૉલ લઈને આવે છે. પહેલા કરતા બીજો બોલ મોટો હોય છે. 	<p>(પીંટુ થોડી વાર પછી ઘરેથી બીજા બે બોલ લઈને આવે છે.)</p> <p>Pintu: Take this ball. It is bigger than the first one. Take this.</p> <p>Chinki: But it is as big as my ball.</p>
<ul style="list-style-type: none"> અને ત્રીજો બીજા બે બોલ કરતા મોટો હોય છે. ચીંકી હાથ મીલાવી આભાર માને છે. 	<p>Pintu: OK. (પીંટુ સૌથી મોટો બોલ આપતા કહે છે.) It is the biggest one.</p> <p>Chinki: Thank you for the biggest ball.</p> <p>Pintu: You are welcome, Chinki.</p>

10. Simple Past Tense

Situation: પીટુ અને ચીકી બજારમાં મળે છે.ત્યારબાદ વાત-ચીત કરતા સાથે ચાલતા ચાલતા બજારમાંથી પસાર થાય છે.

Scene	Dialogues
<ul style="list-style-type: none"> • પીટુ અને ચીકી બજારમાં મળે છે. • આજુ બાજુમાં દુકાનો છે • બે-ત્રણ ફેરીયાઓ પસાર થઈ રહ્યા છે. • વાત-ચીત કરતા સાથે ચાલતા બજારમાંથી પસાર થઈ રહ્યા છે. 	<p>Pintu: Hi, Chinki.</p> <p>Chinki: Hello, Pintu.</p> <p>Pintu: Yesterday, I didn't see you at school.</p> <p>Chinki: Yes. I was not well, so I went to the doctor.</p> <p>Pintu: Oh! Was it something serious? (પીટુ આશ્ચર્યથી પૂછે છે.)</p>
<ul style="list-style-type: none"> • આજુ બાજુ ચાલતા સમયે અલગ અલગ દુકાનો બતાવવી. 	<p>Chinki: No, the doctor examined me and told me that I had fever. He prescribed some medicines and suggested to take rest.</p>
<ul style="list-style-type: none"> • ઘાટીવાળો કેળા વેચી રહ્યો છે • ડુગ્ગા વાળો પસાર થાય છે 	<p>Pintu: Did you stay home all day?</p> <p>Chinki: Yes, I took rest. I felt well in the evening and I did home work.</p> <p>Pintu: Nice. (પીટુ ચીકીને આશ્ચર્યથી પ્રશ્ન પૂછે છે.)</p> <p>Chinki: Did you do your home work?</p>
<ul style="list-style-type: none"> • શાકભાજી વાળો પસાર થઈ રહ્યો છે. 	<p>Pintu: Yes, I did it. OK. Chinki. I have to go. I'll meet you in the school. Bye.</p> <p>Chinki: Bye.</p>

11. Present Perfect Tense	
Situation: Chinki comes to meet Pintu. Chinki saw a boy who is coming out the gate and she enters into Pintu's home.	
Scene	Dialogues
<ul style="list-style-type: none"> ચીંકી પીંટુના ઘરે મળવા આવે છે. ચીંકી છોકરાને પીંટુના ગેટની બહાર નીકળતા જુએ છે. ઘરમાં બંને ઉભા છે. ટી.વી., માછલીઘર, સોફા, વોલપીસ, ઘડીયાળ, કમ્પ્યુટર, વગેરે દર્શાવવા. 	<p>Pintu: Hey! Chinki.</p> <p>Chinki: Hi! Pintu. Who has come to meet you?</p> <p>Pintu: Rahul has just gone to his home. (ગેટ તરફ હાથ કરી કહે છે.)</p> <p>Chinki: Rahul loves football and plays very well. He has hired a new trainer and now he plays even better than before.</p> <p>Pintu: Yes, Rahul is the team captain because he has never lost a match.</p>
<ul style="list-style-type: none"> અલગ-અલગ તરફથી દ્રશ્ય બતાવવા. 	<p>Chinki: He has played beautifully recently.</p> <p>Pintu: Yes, indeed. Chinki, have you ever played football?</p> <p>Chinki: No, I have never played football. Have you done your homework?</p> <p>Pintu: No, I haven't.</p> <p>Chinki: OK bye, see you tomorrow in school.</p> <p>Pintu: Bye.</p>

12. Past Perfect Tense

Situation: Chinki comes at Pintu's home. Pintu talks about his trip to Shimla and Kashmir during the vacation.

Scene	Dialogues
<ul style="list-style-type: none"> ચીકી પીંટુના ઘરે મળવા આવે છે. ચીકી પીંટુના વેકેશન અંગેની વાત કરે છે. ઘરમાં બંને ઉભા છે. ટી.વી., માછલીઘર, સોફા, વોલપીસ, ઘડીયાળ, કમ્પ્યુટર, વગેરે દર્શાવવા. 	<p>Chinki: Hello, Pintu!</p> <p>Pintu: Hello.</p> <p>Chinki: How was your vacation?</p> <p>Pintu: I really enjoyed it because I had visited Kashmir.</p> <p>Chinki: Did you visit any other place?</p> <p>Pintu: Yes, before I visited Kashmir I had gone to Shimla. (કશ્મિર અને સીમલાનું ચિત્ર દર્શાવવું)</p>
<ul style="list-style-type: none"> અલગ-અલગ તરફથી દ્રશ્ય બતાવવા. 	<p>Chinki: Had you ever seen Kashmir before?</p> <p>Pintu: No, I had not seen Kashmir before.</p> <p>Chinki: Had you booked the tickets well in advance?</p> <p>Pintu: Yes, we had booked the tickets before three months. (ટીકીટનું ચિત્ર દર્શાવવું)</p> <p>Chinki: Was that fun?</p>
<ul style="list-style-type: none"> પીંટુ ઉત્સાહ સાથે બોલે છે. 	<p>Pintu : Yes, it was.</p> <p>Chinki: Did you enjoy in the boathouse?</p> <p>Pintu: Yes, I had enjoyed the boathouse. (ઉત્સાહ સાથે બોલે છે.)</p> <p>Chinki: I think it might be cold in Kashmir.</p> <p>Pintu: Yes, I had worn heavy jacket when it was cold.</p> <p>Chinki: OK. Bye, I have to go now. I'll meet you in the school.</p> <p>Pintu: OK. Bye.</p>

13. Adverb Clause of Result (so...that, such...that, so that)	
Situation: Pintu and Chinki meet in the garden and they discuss about the weekend.	
Scene	Dialogues
<ul style="list-style-type: none"> ● પીંટુ બાગમાં ફૂટબોલ રમી રહ્યો હોય છે. ● સામેથી ચીંકી કુતરાને લઈને આવે છે. ● બંને એકબીજા સાથે વાતો કરે છે. ● બાજુમાં કુતરો રમતો હોય છે. 	<p>Chinki: Hi! Pintu. Why don't you play, today?</p> <p>Pintu: It's so hot that I cannot go out to play, Chinki.</p> <p>Chinki: How was your weekend?</p> <p>Pintu: Good. Yesterday, we had much time so that we went out for shopping.</p> <p>Chinki: Did you buy something?</p> <p>Pintu: There were many choices so that I got confused.</p> <p>Chinki: Did you watch a movie?</p> <p>Pintu: Yes, It's such a great movie that I've watched it several times.</p>
<ul style="list-style-type: none"> ● ચીંકી પીંટુના જેકેટ તરફ હાથ બતાવી કહે છે. 	<p>Chinki: Nice jacket Pintu?</p> <p>Pintu: Thanks, Jacket was so wonderful that I couldn't take my eyes off it.</p> <p>Chinki: OK. Bye Pintu.</p> <p>Pintu: Bye.</p>

14. Active - Passive Voice	
<p>Situation: Pintu comes late in the school because of heavy traffic and an accident on the road. Pintu meets Chinki in school corridor during the recess time.</p>	
Scene	Dialogues
<ul style="list-style-type: none"> ● શિક્ષક ભણાવી રહ્યા હોય છે. ● પીટુ વર્ગમાં પ્રવેશવા શિક્ષકની પરવાનગી માંગે છે. ● શિક્ષક પરવાનગી આપે છે. ● પીટુ બેચ પર બેસે છે ● રીસેસનો બેલ વાગે છે. 	<p>Pintu: May I come in Ma'm?</p> <p>Teacher: Yes, why do you come late?</p> <p>Pintu: There was heavy traffic due to an accident on the road.</p> <p>Teacher: OK, Sit down. (પીટુ બેચ પર બેસે છે અને રીસેસનો બેલ વાગે છે.)</p> <p>(Pause -શિક્ષક ભણાવી રહ્યા હોય છે.)</p>
<ul style="list-style-type: none"> ● પીટુ અને ચીકી રીસેસમાં શાળાની લોબીમાં મળે છે. ● બંને એકબીજા સાથે વાત કરે છે. ● આજુબાજુમાંથી બીજા વિદ્યાર્થીઓ પસાર થઈ રહ્યા હોય છે. ● અકસ્માતનું ચીત્ર દર્શાવવું. 	<p>Pintu: Hey! Chinki.</p> <p>Chinki: Hi! Pintu. Why do you come late?</p> <p>Pintu: Today, I have seen an accident. A man was hit by a car. He was injured. (image of an accident with ambulance)</p> <p>Chinki: Did he survive or not?</p> <p>Pintu: Yes, the man has been given first aid and now he is being taken to hospital.</p> <p>Chinki: Thank God.</p>
<ul style="list-style-type: none"> ● શાળાની લોબીમાં બેસી રહ્યો હોય છે. ● રીસેસ પુરી થવાનો બેલ વાગે છે. 	<p>Pintu: Have you heard something about the annual examination?</p> <p>Chinki: The exam dates have already been declared.</p> <p>Pintu: Have they declared our midterm examination results?</p> <p>Chinki: Yes, that may be declared in the next week.</p> <p>Pintu: OK. Bye Chinki.</p> <p>Chinki: Bye.</p>

15. Direct - Indirect speech	
Situation: Chinki comes to Pintu's house and she sees that his father loses his voice. Chinki helps Pintu to get his father's voice back.	
Scene	Dialogues
<ul style="list-style-type: none"> • પીટુના પપ્પા સોફા પર બેસીને લેપટોપ પર કામ કરતા હોય છે • ટીપોઈ પર લેપટોપ મુકી કામ કરતા હોય છે. • ચીંકી પીટુના ઘરમાં પ્રવેશ કરે છે. • અંદર આવી પીટુ સાથે વાત કરે છે. • બંને એક બીજાની સામે ઉભા રહી વાત કરે છે. 	<p>Chinki: Good morning, dear. Pintu: Good morning. Chinki: What's the matter? Pintu: Dad says that he has lost his voice. Chinki: He has lost his voice! Come on, dear. Don't joke. Pintu: He says that it isn't a joke. He has really lost his voice. Chinki: How did your dad lose his voice? (look at Pintu's father and asks)</p>
<ul style="list-style-type: none"> • પીટુના પપ્પાને ધ્યાનમાં રાખી આગળનો વાર્તાલાપ ચાલે છે. 	<p>Pintu: He says that he went to see a cricket match last night. Chinki: Did he take his medicine? Pintu: Dad says that he has taken medicine. Chinki: Still no recovery. Pintu: Not yet. Chinki: My grandmother says that you should take ginger for throat infection. Pintu: OK. We'll try.</p>
<ul style="list-style-type: none"> • મધ અને ટોસ્ટનું ચીત્ર દર્શાવવું. 	<p>Chinki: Did he ask you to eat? Pintu: Yes. Dad says that he would like to drink juice. And juice having ingredients like lemon, ginger, and honey mixed up with warm water. Chinki: Why honey? Pintu: Dad says that lemon, ginger and honey are good for his throat.</p>
<ul style="list-style-type: none"> • ચીંકી રસોડામાં જાય છે. 	<p>Chinki: OK I'll come with juice in a moment. (She goes in kitchen)</p>

APPENDIX – E

A LIST OF EXPERTS FOR THE VALIDATION OF CAI

APPENDIX - E

A LIST OF EXPERTS FOR THE VALIDATION OF CAI

Sr. No.	Name of a Teacher	Name of the institution
1	Dr. H. M. Barot	Assistant Professor, M.N.C. College of Education, Dabhoi, Vadodara
2	Dr. Kamalnayan Parmar	Associate Professor, Shree R. P. Anada College of Education, Borsad, Anand
3	Dr. Shamal Solanki	Associate Professor, A.G. Teachers college of Education, Navrangpura, Ahmedabad.
4	Dr. Bhavin Chauhan	Assistant Professor, Department of Education, The M. S. Uni. of Baroda, Vadodara
5	Mr. Pravin Parmar	Assistant Teacher, Zenith School, Pratapnagar, Vadodara
6	Mr. Girish C. Solanki	Assistant Teacher, Jai Ambe School, Karelibaug, Vadodara
7	Mr. Nitesh Thakar	Assistant Teacher, Vakal Vidhyalaya, Bajwa, Vadodara
8	Mr. Alpesh Parmar	Assistant Teacher, Narayan Vidhyalay, Waghodiya Road, Vadodara
9	Mr. Ritesh Vaniya	Assistant Teacher, Primary school, Ambav, Ta-Anklav, Anand
10	Dr. Jatin Gamit	Assistant Teacher, Government Higher Secondary School, Aamba, Ta - Songadh, Dist - Tapi.
11	Mr. Naresh Parmar	Assistant Teacher, My Shannen School, Bodeli, Dist - Chhotaudepur.
12	Mrs. Rakhee Gohil	Freebird Animation, Gotri, Vadodara
13	Mr. Dipak Patil	Freebird Animation, Gotri, Vadodara

APPENDIX – F

**A LIST OF TEACHERS
FOR ACHIEVEMENT
TEST VALIDTION**

APPENDIX - F**A LIST OF TEACHERS FOR ACHIEVEMENT TEST VALIDATION**

Sr. No.	Name of a Teacher	Name of the institution
1	Prof. Sujata Srivastava	Professor, Department of Education, The M. S. Uni. of Baroda, Vadodara
2	Dr. Bhavin Chauhan	Assistant Professor, Department of Education, The M. S. Uni. of Baroda, Vadodara
3	Dr. Kamalnayan Parmar	Associate Professor, Shree R. P. Anada College of Education, Borsad, Anand
4	Dr. Shamal Solanki	Associate Professor, A.G. Teachers college of Education, Navrangpura, Ahmedabad.
5	Mr. Dipak Parikh	Principal, Baroda High School, ONGC, Vadodara
6	Mr. Nitesh Thakar	Assistant Teacher, Vakal Vidhyalay, Bajwa, Vadodara
7	Mrs. Malini S. Pathak	Creative Writer
8	Mr. Hiren P. Joshi	Assistant Teacher, Utkarsh Vidhyalay, Vadodara
9	Mr. Pravin A. Prajapati	Assistant Teacher, Utkarsh Vidhyalay, Vadodara
10	Mrs. Jigisha Amrelia	Assistant Teacher, Utkarsh Vidhyalay, Vadodara
11	Mr. Kirit Vaniya	Assistant Teacher, Smt. K. D. Patel Vidyamandir, Gana (Mogri), Anand
12	Dr. Ritesh Vaniya	Assistant Teacher, Primary school, Ambav, Ta-Anklav, Anand
13	Dr. Jatin Gamit	Assistant Teacher, Government Higher Secondary School, Aamba, Ta - Songadh, Dist - Tapi.

APPENDIX – G

ACHIEVEMENT TEST

ACHIEVEMENT TEST

Student's Name: _____ **Date:** _____

Name of the School: _____ **Time:** 1 hour **Total Marks:** 75

Subject: English **Standard:** 9th **Div.:** _____ **Roll No.:**

General Instructions

- 1) This test is based on English Grammar. It contains 75 questions having equal weight age. Attempt all the questions.
- 2) This test is just to check your knowledge of English grammar related to Article, Preposition, Conjunction, Use of How much, how many, few, a few, little, a little, therefore, so, etc., 'Wh' questions, Question Tag, Kinds of sentence, Modal Auxiliaries, Degrees of Comparison, Simple Past Tense, Present Perfect Tense, Past Perfect Tense, Adverb Clause of Result, Active – Passive Voice and Direct - Indirect speech.
- 3) Read the instruction carefully and select the correct option as your answer to the question.
- 4) Tick mark (✓) the correct option as your answer for all the questions.
- 5) Your achievement from this test will not be considered as a part of your evaluation at school level. Your achieved score will be used only for the research purpose and your responses will be kept confidential.

PART – A

In this part there are 70 multiple choice type test items. Choose the correct answer from the given options and tick mark it for each test item.

1. I left it at _____ office.

- | | |
|---------|----------|
| (a) A | (b) An |
| (c) the | (d) None |

2. He made his escape by jumping _____ the fence.
- (a) Over (b) On
(c) Under (d) None
3. Summer days are hot _____ sunny.
- (a) But (b) And
(c) So (d) None
4. The girl has many chocolates but the boy has only _____ .
- (a) a few (b) Few
(c) a little (d) None
5. _____ did your mother tell you?
- (a) Who (b) What
(c) Which (d) None
6. This fat man hardly does any work, _____ .
- (a) does he? (b) doesn't he?
(c) don't he? (d) None
7. Students _____ pass an entrance examination to study at this school.
- (a) Must (b) Should
(c) Can (d) None
8. No other boy is as _____ as Jigar.
- (a) tall (b) Taller
(c) Tallest (d) None

9. Mozart _____ more than 600 pieces of music.
- (a) Write (b) wrote
(c) Written (d) None
10. Someone _____ my CD player.
- (a) Steal (b) Stole
(c) have stole (d) has stolen
11. She _____ the palace before she moved to Baroda.
- (a) had never seen (b) was never see
(c) has never seen (d) never saw
12. It was _____ hot _____ we didn't go out.
- (a) so....that (b) such....that
(c) such...as (d) None
13. The robbers _____ by the police.
- (a) have arrested (b) have been arrested
(c) had arrested (d) Arrested
14. I asked him if he _____ marry me?
- (a) Would (b) Will
(c) May (d) Can
15. He is _____ doctor.
- (a) a (b) An
(c) the (d) None

16. I watched something about it _____ television.
- (a) Over (b) In
(c) on (d) None
17. Reshma was suffering from cold, _____ she put on a coat.
- (a) So (b) And
(c) Or (d) None
18. I can't give you any more as I have only _____ milk in the cup.
- (a) Much (b) Little
(c) a little (d) None
19. _____ car are you driving?
- (a) Who (b) What
(c) Which (d) None
20. It won't be hard to convince her, _____ .
- (a) will not it? (b) won't it?
(c) will it? (d) None
21. When he was young, he _____ swim very well.
- (a) had to (b) Can
(c) Could (d) None
22. Which is the _____ river in the world?
- (a) long (b) Longer
(c) Longest (d) None

23. We _____ David in town a few days ago.
- (a) had seen (b) see
(c) Saw (d) None
24. He _____ hard this week at his job.
- (a) Worked (b) has been working
(c) had worked (d) None
25. The teacher _____ out when I arrived in the classroom.
- (a) was gone (b) have gone
(c) Went (d) had gone
26. She spoke in _____ a low voice _____ nobody could hear her.
- (a) so....that (b) such....that
(c) such...as (d) None
27. The students _____ to submit their reports by the end of this week.
- (a) are asked (b) Asked
(c) was asked (d) were asked
28. Neha said that she _____ in an office.
- (a) Worked (b) is working
(c) Work (d) None
29. He will be back in _____ hour.
- (a) a (b) An
(c) the (d) None

30. She took the key out _____ her pocket.
- (a) On (b) In
(c) of (d) None
31. I like chicken _____ not fish.
- (a) Or (b) Because
(c) But (d) None
32. You have given me too _____ milk.
- (a) a few (b) More
(c) Few (d) Much
33. _____ will the train arrive?
- (a) Who (b) When
(c) Where (d) None
34. They have not arrived, _____
- (a) have they? (b) haven't they?
(c) hasn't they? (d) None
35. The company _____ go financially ruined if they don't find a lot of money quickly.
- (a) Should (b) shouldn't
(c) Might (d) None
36. Shimla is _____ than most other hill stations in India.
- (a) famous (b) more famous
(c) most famous (d) None

37. It was cold, so I _____ the window.
- (a) shut (b) was shut
(c) was shutting (d) None
38. That house _____ painted green for ten years.
- (a) was (b) shall have been
(c) had been (d) has been
39. I _____ my document before the power went out in the computer lab.
- (a) was saved (b) have saved
(c) had saved (d) Saved
40. She was _____ weak _____ she couldn't walk.
- (a) so....that (b) such....that
(c) such...as (d) None
41. He _____ by them.
- (a) Targeted (b) has targeted
(c) is being targeted (d) None
42. He wanted to know when _____ leaving.
- (a) I was (b) was I
(c) I will be (d) I am
43. Ganga is _____ longest river of all.
- (a) A (b) An
(c) the (d) None

44. We finished the test _____ the same time.
- (a) In (b) At
(c) Of (d) None
45. _____ my mother _____ my father will be able to attend the party on Sunday.
- (a) No sooner ... than (b) Neither ... nor
(c) Either ... or (d) Both (b) and (c)
46. Only _____ people attended the seminar as it was so boring.
- (a) Few (b) a few
(c) Little (d) More
47. _____ do you want to go home?
- (a) Why (b) What
(c) Which (d) None
48. He could have bought a new car, _____
- (a) could he? (b) couldn't he?
(c) can't he? (d) None
49. You look very confused by the homework, Ravi. _____ I help you?
- (a) Will (b) Can
(c) Must (d) Shall
50. Gold is one of the _____ metals.
- (a) Precious (b) more precious
(c) most precious (d) None

51. I _____ to the cinema three times last week.
- (a) was gone (b) went
(c) go (d) was going
52. The car _____ down.
- (a) Break (b) broke
(c) had broken (d) has broken
53. When they arrived, we _____ the test.
- (a) had already started (b) have already started
(c) already started (d) were already started
54. It was _____ a hot afternoon _____ we stopped playing.
- (a) so....that (b) such....that
(c) such...as (d) None
55. The boy _____ by the committee.
- (a) Rewarded (b) was rewarded
(c) has rewarded (d) None
56. Nobody told me why _____ to sign the paper.
- (a) I had (b) did I have
(c) I have (d) None
57. It's _____ third road on the left.
- (a) A (b) An
(c) the (d) None

58. I started this website _____ 1990.
- (a) In (b) At
(c) Out (d) None
59. You should stay away from bears _____ they are dangerous.
- (a) Or (b) But
(c) Because (d) None
60. _____ pupils were present during the prayer?
- (a) How much (b) How many
(c) Few (d) None
61. _____ notebook is the teacher checking now?
- (a) Who (b) What
(c) Whose (d) None
62. Julie used to work here, _____
- (a) was she? (b) did she?
(c) didn't she? (d) None
63. I left my purse at home. Maya, _____ you lend me ten rupees?
- (a) May (b) Could
(c) shouldn't (d) None
64. A train is _____ than a car.
- (a) fast (b) Faster
(c) Fastest (d) None

PART – B

In this part, there are five sentences. Read the given sentences carefully. Find the incorrect part (if any) keeping in mind types of sentences. Tick mark (✓) the selected option, as an incorrect part for each sentence.

71. Hiren is / just / ten years / old!
 (a) (b) (c) (d)
 (a) Hiren is (b) Just
 (c) ten years (d) old!
72. Why didn't / you come to / the party / last night.
 (a) (b) (c) (d)
 (a) Why didn't (b) you come to
 (c) the party (d) last night.
73. Stay / where / you are .
 (a) (b) (c)
 (a) Stay (b) Where
 (c) you are. (d) None
74. How / well / she / sings.
 (a) (b) (c) (d)
 (a) How (b) Well
 (c) She (d) sings.
75. Did say I / anything to / make you / angry?
 (a) (b) (c) (d)
 (a) Did say I (b) anything to
 (c) make you (d) angry?

APPENDIX – H

A LIST OF TEACHERS FOR THE VALIDTION OF REACTION SCALE

APPENDIX - H**A LIST OF TEACHERS FOR THE VALIDATION OF REACTION SCALE**

Sr. No.	Name of a Teacher	Name of the institution
1	Dr.Kamalnayan Parmar	Associate Professor, Shree R. P. Anada College of Education, Borsad, Anand
2	Dr. Shamal Solanki	Associate Professor, A.G. Teachers college of Education, Navrangpura, Ahmedabad.
3	Dr. Bhavin Chauhan	Assistant Professor, Department of Education, The M. S. University of Baroda, Vadodara.
4	Mr. Dipak Parikh	Principal, Baroda High School, ONGC, Vadodara
5	Mr. Nitesh Thakar	Assistant Teacher, Vakal Vidhyalaya, Bajwa, Vadodara
6	Dr. H. M. Barot	Assistant Professor, MNC College of Education, Dabhoi, Vadodara
7	Mr. Kirit Vaniya	Assistant Teacher, Smt. K. D. Patel Vidyamandir, Gana (Mogri), Anand
8	Dr. Ritesh Vaniya	Assistant Teacher, Primary school, Ambav, Ta-Anklav, Anand
9	Dr. Jatin Gamit	Assistant Teacher, Government Higher Secondary School, Aamba, Ta-Songadh, Dist-Tapi.

APPENDIX – I

REACTION SCALE

REACTION SCALE

Dear students,

You have studied English grammar with the help of Computer Assisted Instruction (CAI) package. Here are some statements to know your reactions about the implemented CAI package. Read each statement carefully and give your respond by putting a tick mark (✓) in any one appropriate box out of the given five provided options shown as below:

SA	A	UD	DA	SD
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree

Please give your reactions for all the given statements. Your responses will be used only for the research purpose and kept confidential.

Sr. No.	Statements	SA	A	UD	DA	SD
1	Teaching points in each picture slide was logically sequenced.					
2	Objectives framed in CAI package for each topic were appropriate.					
3	Material provided in the package helped me a lot for self- study.					
4	CAI package helped me in proper understanding of English grammar.					
5	Combination of animation, text & sound made the learning interesting through CAI.					
6	CAI package didn't help me in learning of proper voice modulation.					
7	CAI package helped in learning of proper speed of delivery of conversation.					
8	Language used in CAI package was not found easy.					
9	I could use CAI package independently for self-learning.					
10	Learning through CAI package was a joyful experience.					

11	CAI package was easy to use and understand.					
12	The instructions used in CAI package were clear.					
13	CAI package is helpful to learn grammar.					
14	CAI package helped me to improve the achievement of lower grammar.					
15	I am willing to continue learning English grammar through CAI package.					
16	Illustrations given in CAI are enough to understand the concept clearly.					
17	In CAI package I can't learn with my own speed.					
18	Background music in the presentation of CAI was found a disturbance in learning.					
19	I could immediately test/evaluate my understanding while using CAI package.					
20	Animations used in CAI package found distracting in understanding the concepts.					
21	CAI took more time to understand the concept than the traditional classroom teaching.					
22	Learning through CAI package was found a waste of time.					
23	Topics used in CAI were not introduced properly.					
24	Instructions given in each slide of CAI package found easy and clear to follow.					
25	Scores obtained at the end of each exercise has given me feedback about my learning.					
26	The solutions provided under each 'practice' in CAI found not easy to understand.					
27	The exercises given for each topic under CAI package is adequate and useful.					
28	Learning through CAI package means having more freedom to learn.					

APPENDIX – J

**LIST OF PAPER
PUBLICATION**



Computer Assisted Instruction in Teaching of English Grammar: A Pedagogical Innovation

INTRODUCTION

English has been one of the most used languages in the world and it has a significant importance in the field of education. It plays a vital role to have the better view of the world and to have better access of the latest sources of knowledge and information. In other words, it can be called as a living stream of knowledge that plays a vital role in producing changes and accepting new trends in the society. English language teaching is used as an important measure to judge the effectiveness of different pedagogies. The pedagogy used impacts students' achievement and attitude. In this modern era of Information and Communication Technology (ICT) English can be taught effectively with the help of computers and in that Computer Assisted Instruction (CAI) is very useful as it lessens the burden of the teacher and makes teaching and learning interesting. Many studies have proved that students learn things at their own pace and convenience through CAI. It can also satisfy the need of the students of different age groups and proved to be effective in teaching different subjects so the present study is undertaken to find out the effect of CAI by integrating ways of different presentation that is by using only CAI, with adequate repetition and followed by discussion. The study may be useful to find more pedagogical innovative use of CAI for teaching learning processes. Educators should have knowledge of content as well as pedagogy expertise because CAI should not be developed without consideration of content and pedagogy. This paper provides an overview of some important teaching and learning concepts that should be considered when developing CAI.

The purpose of present study is to examine the potential of the CAI in helping students in secondary schools to learn English as a second language. The study is intended using computer as a tool to integrate teaching materials through the use of CAI to motivate students to learn English grammar more effectively. Further it also focuses on how to learn English Grammar more easily and to use it correctly.

RATIONALE OF THE STUDY

English is taught as a compulsory subject at all the stages, starting from V to XII standards of school education. The apprehension of National Curriculum Framework (NCF-2005) is very true in the context that, "If in the next five years we are not able to achieve considerable success in the teaching of English, we will face the political demand for all schools to become English medium...".

NCERT (2006), also reports that the failure of a large number of children in class X examination on account of English is an issue of worry. Here, the failure of students is considered with respect to their poor achievement or performance in English subject. The existing syllabus of Std. IX has potential to build up a strong language proficiency in the students, which will help them a lot in pursuing their higher studies in future. But the poor performance of the learners at this level proves the significance of Std. IX English as a base for the upcoming standards in the ladder of education. Hence, the investigator has focused on developing CAI mainly in English grammar for Std. IX which will be further helpful to the learner's at large scale in developing language proficiency.

Grammar is the study of words and the ways words work together; an invisible force that guides us as we put words together into sentences. Any person who communicates using a particular

language, consciously or unconsciously becomes aware of the grammar of that language. This can be understood with the help of the following example given by Kohli (1984), "A writer has given a beautiful analogy to illustrate the use of knowledge of Grammar. Imagine two car drivers. The first driver knows only driving and nothing about the working of the engine. He feels helpless whenever there is some trouble with the machinery. The second driver knows driving and also understands the working of the machinery. The person who knows grammar is like this second driver. In case he is doubtful about the correctness of a particular thing, his knowledge of grammar comes to his rescue." Therefore, to speak in a clearer and more effective manner one has to study grammar. If the person who wishes to communicate in the artistic manner with well-defined structures, he must go for the greater depth of understanding and proficiency what the study of grammar offers. Now a day, the situation of English Grammar teaching needs to be strengthened through innovative approaches. Computer has been proved a useful tool under such approaches through various research studies. Computer as a medium, because of its suitable attributes can help in realizing the objectives of English grammar. Though Std. IX students are at formal operational level but learning English through grammar becomes little bit abstract in the absence of sound effects, visualization and colors. Hence, the investigator has decided to develop a CAI for teaching and Learning of English grammar at Std. IX level.

Advancement of technology has influenced each and every aspect of human life. The system of education is not an exception. The objectives of education have also become multidimensional. CAI has unique features because it can store, retrieve and transform the information. Many researchers like, Acharya (2005), Badiyani (2008), Das (1998), Patel (2009), Sakhiya (2006), Zyoud (1999), attempted to develop multi-media packages i.e. Programmed Learning Material, Computer Assisted programs to enhance learning in English language. The studies further suggested that more packages and programs need to be developed so as to enhance the learning of English language, especially focusing on grammar. It is observed that most of the studies were conducted at school levels in different subjects for studying effectiveness of Computer Assisted Instruction. No study was found focusing on the English language subject covering the major hard spots of learning in English grammar based on prescribed syllabus of Std. IX.

It seems that simply developing CAI for English grammar may not serve the purpose of quality improvement in English. It necessitates identification of the major hard spots of learning especially in English grammar basically to serve as the basis for the development of CAI. Hence, the investigator will identify the major hard spots of English grammar on the basis of the opinion of some experienced English teachers.

A logical analysis of the reviewed studies revealed that most of the CAI developed in English language under the studies were in the form of Microsoft PowerPoint presentations. They were lacking the innovative approaches based on integration of applications like animation, visualization, colour – sound and imaginary effects, etc. So, the investigator has decided to integrate all such applications in the development of CAI under the present study.

OBJECTIVES OF THE STUDY

- i) To develop Computer Assisted Instruction (CAI) in English grammar for Std. IX students.
- ii) To implement the Computer Assisted Instruction (CAI) as a pedagogical innovation.
- iii) To study the effectiveness of a CAI in terms of achievement of the students.

HYPOTHESES

- i) There will be no significant difference in the mean scores of experimental and control group.

EXPLANATION OF THE TERM

- **Computer Assisted Instruction (CAI) in English:**

CAI in English grammar refers to the Computer Assisted Instructional Package developed by the investigator using various software to teach English grammar to the students of Std. IX. The CAI was based on selected grammar points, which would be identified on the basis of opinion of some experienced English teachers. The CAI was included explanation of various topics with examples, exercise, self-practice and self-evaluation in different forms.

OPERATIONALIZATION OF THE TERMS

- **Achievement:**

Achievement means the marks obtained by the students of Std. IX in the achievement test based on English grammar.

- **Effectiveness of CAI:**

Effectiveness of CAI was judged on the basis of the significance of difference in mean achievement scores of the experimental and control groups in pre-test and post-test.

DELIMITATION OF THE STUDY

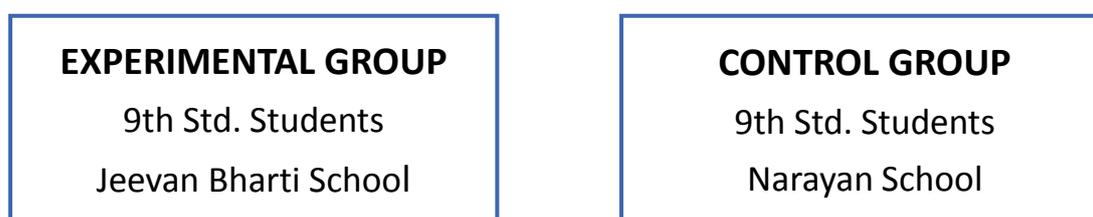
The present study delimited to the students of Gujarati medium grant-in-aid secondary schools of Vadodara, following the prescribed syllabus of Gujarat Secondary and Higher Secondary Education Board (GSHSEB).

METHODOLOGY

POPULATION

There are total four clusters of schools in Vadodara city known as 'Shala Vikas Sankul' (SVS) and under these four SVS there are total 106 Gujarati medium grant in aid secondary schools. So, total 9976 students of Std. IX grant-in-aid secondary schools of Vadodara city of Gujarat state under GSHSEB constituted the population for the study.

SAMPLE



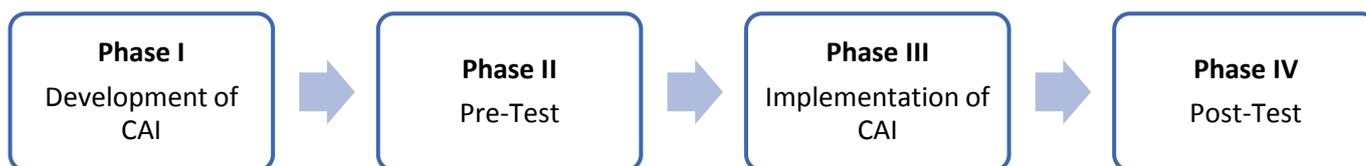
The list of grant-in-aid Gujarati medium secondary schools Vadodara city was collected from the District Education Office (DEO) office, Vadodara. Then, two schools (Jeevan Bharti School and Narayan School) were selected purposively for the selection of the students. An intact class of Std. IX from each school considered as the sample for the present study. Then, students from Jeevan Bharti School was treated as the experimental group whereas the Narayan School's students were treated as the control group.

DESIGN OF THE STUDY

The proposed study was a developmental cum experimental in nature wherein Quasi-Experimental Design was used. The pretest – posttest Nonequivalent Group Design was followed under the study.

PLAN AND PROCEDURE

The study was conducted in four different phases. The phase wise detail is described as under.



Phase I – Development of CAI

Prior to develop the CAI, content of the English text book (Std. IX) was analysed and overall grammar points were identified. Then by conducting the interview of the selected experienced English teachers, difficult teaching points of English grammar was identified.

Phase II – Administration of Pre-test

Under this phase, a pretest (an achievement test in English grammar) was administered to the students of experimental and control groups with a view to measure their achievement level in English grammar.

Phase III – Implementation of pedagogical innovation

The developed CAI was implemented only in Experimental Group. For each grammar point under pedagogical innovation researcher had prepared a CAI, three periods (under the regular time table) were allotted during a week. The CAI was implemented under the three allotted periods within a week.

Phase IV- Administration of Post test

Under this phase, the post test was administered to both the experimental and control groups with a view to study the effectiveness of the implemented CAI.

TOOLS FOR DATA COLLECTION

Achievement Test: The achievement test was constructed on the basis of the identified hard spots of learning. The similar achievement tests were used as pretest and posttest with a view to know the achievement level of the students in English grammar. Students' achievement in English grammar was judged on the basis of marks obtained in the test based on various types of grammar test items.

DATA COLLECTION

To study the effectiveness of CAI, investigator collected the data in terms of students' achievement in English grammar regarding the implemented CAI. The students' achievement was studied by collecting data in terms of their achievement scores with the help of pretest and posttest. Thus, quantitative data was collected to study the effectiveness of CAI.

DATA ANALYSIS

The collected data were analyzed by using Nonparametric statistics. Statistical findings of pre-test and post-test data in terms of achievement scores were calculated and compared the effectiveness of an intervention through Wilcoxon Test between experimental and control group and Chi-square technique respectively.

FINDINGS OF THE STUDY

From the data analysis, it can be derived that teaching students of class IX English grammar by traditional method is not as effective as with the use of CAI. Teaching students by CAI with simultaneous discussion is more effective and presence of teacher is essential so that students can clear their doubts arising while learning.

As data was collected using purposive sampling, non-parametric statistics will be used for analysis of data. Wilcoxon test is used to measure whether there is a significant difference in the scores of pre-test and post-test of Students' Achievement.

Table - 1 Wilcoxon Test between Experimental and Control Group

	N	Mean	Std. Deviation	Z	Asymp. (2-tailed)
Control Group_Pre	58	29.03	8.50	-0.19	0.84
Control Group Post	58	28.83	8.03		
Experimental Group_1	66	26.67	6.40	-7.06	0.01
Experimental Group_	66	37.23	8.44		

Table-1 explains Wilcoxon test of responses from Narayan School and Jeevan Bharti School. Wilcoxon test was conducted to evaluate whether there is a significant effect of Computer Assisted Instruction (CAI) intervention on students who belongs to experimental group. It can be derived that there was a significant difference in experimental group, $z = -7.06$, $p < .01$ due to the implementation of CAI program and It can also be derived from the mean scores of pre-test of experimental group ($M = 26.67$) and post-test of experimental group ($M = 37.23$) that achievement of students increased, which can be interpreted that teaching through Computer Assisted Instruction(CAI) program makes significant effect on students.

The table also explain that there is not significant difference in control group, $z = 0.19$, $p > 0.01$. It can also be derived from the mean scores of pre-test of control group ($M = 29.03$) and post-test of control group ($M = 28.83$) that achievement of students decreased.

Table - 2 Rank Table

	N	Mean Rank	Sum of Ranks
Control Group	Negative Ranks	25 ^a	33.24
	Positive Ranks	33 ^b	26.67
	Ties	0 ^c	
	Total	58	
Experimental Group	Negative Ranks	0 ^d	0.00
	Positive Ranks	66 ^e	33.50
	Ties	0 ^f	
	Total	66	

Table-2 describes the comparison of responses of pre-test and post-test among both experimental and control group. In control group, 33 participants have higher achievement scores

before the intervention (Computer Assisted Instruction (CAI)), 25 students have higher achievement scores after the intervention and no students showed no change in their achievement scores. Experimental group, whom CAI program have been implemented, no students have high scores before the intervention, 66 students showed higher achievement scores after the intervention and no student showed no change in their achievement scores.

CONCLUSION

The results of this study indicate that class IX students learned English grammar equally well with the use of CAI. Computers have the potential to be useful tools to improve learning; however, it is the responsibility of the teachers to choose software that meets the needs of the students, to use it effectively, and to require its use. Educators can tap into this interest by using technology to deliver instruction and assess learning. Computer learning systems provide educators the opportunity to create lessons in a variety of alternative formats to the traditional lecture in order to address the different learning styles and preferences of students. And this supplement is also useful to the students whenever they are absent to the class during the content is taught. They can refer repeatedly until they understand thoroughly this facility is absent in the traditional method. Ultimately quality is essential in any mode of instruction. There are also limitations in preparing CAI person should know not only the content but also methods to prepare CAI.

REFERENCES

- I. Best John W. and Kahn James V. (2000). *Research in Education*. Seventh Edition, New Delhi: Prentice Hall of India Pvt. Ltd.
- II. Bhutak, T. R. (2004). *Development and Effectiveness of Multimedia Package for Science Subject of Std.9*. (An unpublished doctoral thesis) Rajkot: Saurashtra University.
- III. Blake, R. (2000). Computer mediated communication: A window on L2 Spanish inter language. *Language Learning & Technology*. 4(1), 120-136. Retrieved on June11, 2014, from <http://llt.msu.edu/vol4num1/blake/default.html>.
- IV. D.E.O. (2014). Shalaoni Ankadakiya Mahiti. Retrieved on 3rd March, 2014 from, http://deovadodara.org/school_details.asp.
- V. MOE (1964-1966). *Report of the Education Commission 1964-66*. New Delhi: Ministry of Education. Government of India.
- VI. Gujarat State Textbook Research and Training Center. (1998). *Adhayapan Sambandhi Hetuo, English*. Gandhinagar: GSTRTC.
- VII. Karia, L. H. (2001). *Effectiveness of Computer-Aided Learning (CAL) Programme As Self-study Technique*. (An unpublished doctoral thesis) Rajkot: Saurashtra University.
- VIII. Khirwadkar, A. (1998). *Development of Computer Software for Learning Chemistry at Std. XI*. (An unpublished doctoral thesis) Vadodara: CASE. The Maharaja sayajirao University of Baroda.
- IX. Kitao, K. (1992). CAI no eigo kyouzai no sentaku to sakusei (1-3) [Choosing and making English CAI teaching materials]. *LL Tsushin*, 166-168, 10-13, 10-13, 6-9.
- X. Kohli, A.L. (1984). *Techniques of Teaching English*. Delhi: Dhanpat Rai & sons.
- XI. *National Policy on Education (1986)*. Ministry of Human Resource Development. New Delhi: Government of India.
- XII. NCERT (2005). *A report of National curriculum framework 2005*. New Delhi: NCERT.

- XIII. NCERT (2006). Position Paper: National Focus Group on Teaching of English. New Delhi: NCERT.
- XIV. Wren, P. & Martin, H. (2000). High School English Grammar and Composition. New Delhi: S. Chand & Company.

Rajesh V. Parmar

Research Scholar
Department of Education (CASE)
Faculty of Education and Psychology
The Maharaja Sayajirao University of Baroda
Vadodara

Prof. Satish Pathak

Professor
Department of Education (CASE)
Faculty of Education and Psychology
The Maharaja Sayajirao University of Baroda
Vadodara

Copyright © 2012 - 2017 KCG. All Rights Reserved. | Powered By: Knowledge Consortium of Gujarat

***USE OF COMPUTER ASSISTED INSTRUCTION IN TEACHING OF
ENGLISH GRAMMAR***

RAJESH V. PARMAR

Research Scholar,
Department of Education(CASE),
Faculty of Education and Psychology,
The Maharaja Sayajirao University of Baroda, Vadodara, Gujarat, India.

PROF. SATISH PATHAK

Professor,
Department of Education(CASE),
Faculty of Education and Psychology,
The Maharaja Sayajirao University of Baroda, Vadodara, Gujarat, India.

Introduction

English has been one of the most used languages in the world and it has a significant importance in the field of education. It plays a vital role to have the better view of the world and to have better access of the latest sources of knowledge and information. In other words, it can be called as a living stream of knowledge that plays a vital role in producing changes and accepting new trends in the society. English language teaching is used as an important measure to judge the effectiveness of different pedagogies. The pedagogy used impacts students' achievement and attitude. In this modern era of Information and Communication Technology (ICT) English can be taught effectively with the help of computers and in that Computer Assisted Instruction (CAI) is very useful as it lessens the burden of the teacher and makes teaching and learning interesting. Many studies have proved that students learn things at their own pace and convenience through CAI. It can also satisfy the need of the students of different age groups and proved to be effective in teaching different subjects so the present study is undertaken to find out the effect of CAI by integrating ways of different presentation that is by using only CAI, with adequate repetition and followed by discussion. The study may be useful to find more pedagogical innovative use of CAI for teaching learning processes. Educators should have knowledge of content as well as pedagogy expertise because CAI should not be developed without consideration of content and pedagogy. This paper provides an overview of some important teaching and learning concepts that should be considered when developing CAI.

The purpose of present study is to examine the potential of the CAI in helping students in secondary schools to learn English as a second language. The study is intended using computer as a tool to integrate teaching materials through the use of CAI to motivate students to learn English grammar more effectively. Further it also focuses on how to learn English Grammar more easily and to use it correctly.

Rationale of The Study

English is taught as a compulsory subject at all the stages, starting from V to XII standards of school education. The apprehension of National Curriculum Framework (NCF-2005) is very true in the context that, “If in the next five years we are not able to achieve considerable success in the teaching of English, we will face the political demand for all schools to become English medium...”.

NCERT (2006), also reports that the failure of a large number of children in class X examination on account of English is an issue of worry. Here, the failure of students is considered with respect to their poor achievement or performance in English subject. The existing syllabus of Std. IX has potential to build up a strong language proficiency in the students, which will help them a lot in pursuing their higher studies in future. But the poor performance of the learners at this level proves the significance of Std. IX English as a base for the upcoming standards in the ladder of education. Hence, the investigator has focused on developing CAI mainly in English grammar for Std. IX which will be further helpful to the learners at large scale in developing language proficiency.

Grammar is the study of words and the ways words work together; an invisible force that guides us as we put words together into sentences. Any person who communicates using a particular language, consciously or unconsciously becomes aware of the grammar of that language. This can be understood with the help of the following example given by Kohli (1984), “A writer has given a beautiful analogy to illustrate the use of knowledge of Grammar. Imagine two car drivers. The first driver knows only driving and nothing about the working of the engine. He feels helpless whenever there is some trouble with the machinery. The second driver knows driving and also understands the working of the machinery. The person who knows grammar is like this second driver. In case he is doubtful about the correctness of a particular thing, his knowledge of grammar comes to his rescue.” Therefore, to speak in a clearer and more effective manner one has to study grammar. If the person who wishes to communicate in the artistic

manner with well-defined structures, he must go for the greater depth of understanding and proficiency what the study of grammar offers. Now a day, the situation of English Grammar teaching needs to be strengthened through innovative approaches. Computer has been proved a useful tool under such approaches through various research studies. Computer as a medium, because of its suitable attributes can help in realizing the objectives of English grammar. Though Std. IX students are at formal operational level but learning English through grammar becomes little bit abstract in the absence of sound effects, visualization and colors. Hence, the investigator has decided to develop a CAI for teaching and Learning of English grammar at Std. IX level.

Advancement of technology has influenced each and every aspect of human life. The system of education is not an exception. The objectives of education have also become multidimensional. CAI has unique features because it can store, retrieve and transform the information. Many researchers like, Acharya (2005), Badiyani (2008), Das (1998), Patel (2009), Sakhiya (2006), Zyoud (1999), attempted to develop multi-media packages i.e. Programmed Learning Material, Computer Assisted programs to enhance learning in English language. The studies further suggested that more packages and programs need to be developed so as to enhance the learning of English language, especially focusing on grammar. It is observed that most of the studies were conducted at school levels in different subjects for studying effectiveness of Computer Assisted Instruction. *No study was found focusing on the English language subject covering the major hard spots of learning in English grammar based on prescribed syllabus of Std. IX.*

It seems that simply developing CAI for English grammar may not serve the purpose of quality improvement in English. It necessitates identification of the major hard spots of learning especially in English grammar basically to serve as the basis for the development of CAI. Hence, the investigator will identify the major hard spots of English grammar on the basis of the opinion of some experienced English teachers.

A logical analysis of the reviewed studies revealed that most of the CAI developed in English language under the studies were in the form of Microsoft PowerPoint presentations. They were lacking the innovative approaches based on integration of applications like animation, visualization, colour – sound and imaginary effects, etc. So, the investigator has decided to integrate all such applications in the development of CAI under the present study.

Objectives of The Study

- i) To develop Computer Assisted Instruction (CAI) in English grammar for Std. IX students.
- ii) To implement the Computer Assisted Instruction (CAI) as a pedagogical innovation.
- iii) To study the effectiveness of a CAI in terms of achievement of the students.

Hypotheses

- i) There will be no significant difference in the mean scores of experimental and control group.

Explanation of The Term

- **Computer Assisted Instruction (CAI) in English:**

CAI in English grammar refers to the Computer Assisted Instructional Package developed by the investigator using various software to teach English grammar to the students of Std. IX. The CAI was based on selected grammar points, which would be identified on the basis of opinion of some experienced English teachers. The CAI was included explanation of various topics with examples, exercise, self-practice and self-evaluation in different forms.

Operationalization of The Terms

- **Achievement:**

Achievement means the marks obtained by the students of Std. IX in the achievement test based on English grammar.

- **Effectiveness of CAI:**

Effectiveness of CAI was judged on the basis of the significance of difference in mean achievement scores of the experimental and control groups in pre-test and post-test.

Delimitation of The Study

The present study delimited to the students of Gujarati medium grant-in-aid secondary schools of Vadodara, following the prescribed syllabus of Gujarat Secondary and Higher Secondary Education Board (GSHSEB).

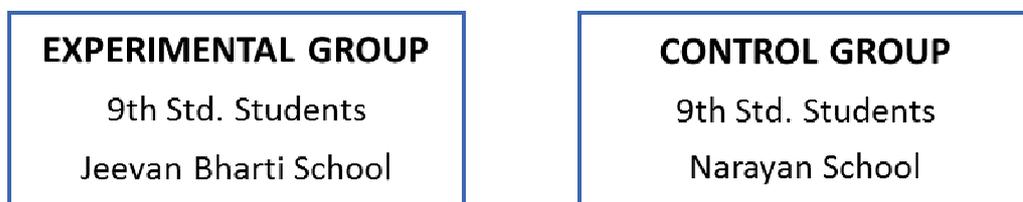
METHODOLOGY

Population

There are total four clusters of schools in Vadodara city known as 'Shala Vikas Sankul'

(SVS) and under these four SVS there are total 106 Gujarati medium grant in aid secondary schools. So, total 9976 students of Std. IX grant-in-aid secondary schools of Vadodara city of Gujarat state under GSHSEB constituted the population for the study.

Sample



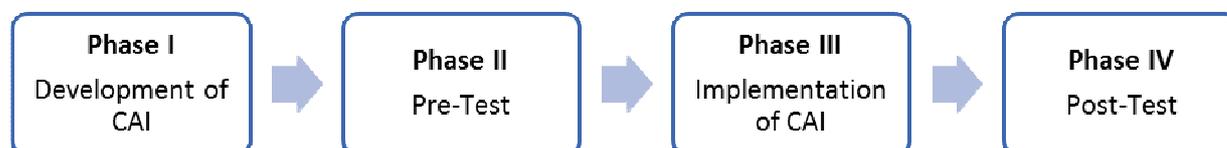
The list of grant-in-aid Gujarati medium secondary schools Vadodara city was collected from the District Education Office (DEO) office, Vadodara. Then, two schools (Jeevan Bharti School and Narayan School) were selected purposively for the selection of the students. An intact class of Std. IX from each school considered as the sample for the present study. Then, students from Jeevan Bharti School was treated as the experimental group whereas the Narayan School's students were treated as the control group.

Design of The Study

The proposed study was a developmental cum experimental in nature wherein Quasi-Experimental Design was used. The pretest – posttest Nonequivalent Group Design was followed under the study.

Plan and Procedure

The study was conducted in four different phases. The phase wise detail is described as under.



Phase I – Development of CAI

Prior to develop the CAI, content of the English text book (Std. IX) was analysed and overall grammar points were identified. Then by conducting the interview of the selected experienced English teachers, difficult teaching points of English grammar was identified.

Phase II – Administration of Pre-test

Under this phase, a pretest (an achievement test in English grammar) was administered to the students of experimental and control groups with a view to measure their achievement level in English grammar.

Phase III – Implementation of pedagogical innovation

The developed CAI was implemented only in Experimental Group. For each grammar point under pedagogical innovation researcher had prepared a CAI, three periods (under the regular time table) were allotted during a week. The CAI was implemented under the three allotted periods within a week.

Phase IV- Administration of Post test

Under this phase, the post test was administered to both the experimental and control groups with a view to study the effectiveness of the implemented CAI.

Tools for Data Collection

Achievement Test: The achievement test was constructed on the basis of the identified hard spots of learning. The similar achievement tests were used as pretest and posttest with a view to know the achievement level of the students in English grammar. Students' achievement in English grammar was judged on the basis of marks obtained in the test based on various types of grammar test items.

Data Collection

To study the effectiveness of CAI, investigator collected the data in terms of students' achievement in English grammar regarding the implemented CAI. The students' achievement was studied by collecting data in terms of their achievement scores with the help of pretest and posttest. Thus, quantitative data was collected to study the effectiveness of CAI.

Data Analysis

The collected data were analyzed by using Nonparametric statistics. Statistical findings of pre-test and post-test data in terms of achievement scores were calculated and compared the effectiveness of an intervention through Wilcoxon Test between experimental and control group and Chi-square technique respectively.

Findings of The Study

From the data analysis, it can be derived that teaching students of class IX English grammar by traditional method is not as effective as with the use of CAI. Teaching students by CAI with simultaneous discussion is more effective and presence of teacher is essential so that students can clear their doubts arising while learning.

As data was collected using purposive sampling, non-parametric statistics will be used for analysis of data. Wilcoxon test is used to measure whether there is a significant difference in the scores of pre-test and post-test of Students' Achievement.

Table – 1 Wilcoxon Test between Experimental and Control Group

	N	Mean	Std. Deviation	Z	Asymp. Sig. (2-tailed)
Control Group _Pre	58	29.03	8.50		
Control Group Post	58	28.83	8.03	-0.19	0.84
Experimental Group_Pre	66	26.67	6.40		
Experimental Group_ Post	66	37.23	8.44	-7.06	0.01

Table-1 explains Wilcoxon test of responses from Narayan School and Jeevan Bharti School. Wilcoxon test was conducted to evaluate whether there is a significant effect of Computer Assisted Instruction (CAI) intervention on students who belongs to experimental group. It can be derived that there was a significant difference in experimental group, $z = -7.06$, $p < .01$ due to the implementation of CAI program and It can also be derived from the mean scores of pre-test of experimental group ($M = 26.67$) and post-test of experimental group ($M = 37.23$) that achievement of students increased, which can be interpreted that teaching through Computer Assisted Instruction(CAI) program makes significant effect on students.

The table also explain that there is not significant difference in control group, $z = 0.19$, $p > 0.01$. It can also be derived from the mean scores of pre-test of control group ($M = 29.03$) and post-test of control group ($M = 28.83$) that achievement of students decreased.

Table - 2 Rank Table

		N	Mean Rank	Sum of Ranks
Control Group	Negative Ranks	25 ^a	33.24	831.00
	Positive Ranks	33 ^b	26.67	880.00

	Ties	0 ^c		
	Total	58		
	Negative Ranks	0 ^d	0.00	0.00
Experimental Group	Positive Ranks	66 ^e	33.50	2211.00
	Ties	0 ^f		
	Total	66		

Table-2 describes the comparison of responses of pre-test and post-test among both experimental and control group. In control group, 33 participants have higher achievement scores before the intervention (Computer Assisted Instruction (CAI)), 25 students have higher achievement scores after the intervention and no students showed no change in their achievement scores. Experimental group, whom CAI program have been implemented, no students have high scores before the intervention, 66 students showed higher achievement scores after the intervention and no student showed no change in their achievement scores.

Conclusion

The results of this study indicate that class IX students learned English grammar equally well with the use of CAI. Computers have the potential to be useful tools to improve learning; however, it is the responsibility of the teachers to choose software that meets the needs of the students, to use it effectively, and to require its use. Educators can tap into this interest by using technology to deliver instruction and assess learning. Computer learning systems provide educators the opportunity to create lessons in a variety of alternative formats to the traditional lecture in order to address the different learning styles and preferences of students. And this supplement is also useful to the students whenever they are absent to the class during the content is taught. They can refer repeatedly until they understand thoroughly this facility is absent in the traditional method. Ultimately quality is essential in any mode of instruction. There are also limitations in preparing CAI person should know not only the content but also methods to prepare CAI.

References

- Best John W. and Kahn James V. (2000). *Research in Education*. Seventh Edition, New Delhi: Prentice Hall of India Pvt. Ltd.
- Bhutak, T. R. (2004). *Development and Effectiveness of Multimedia Package for Science Subject of Std.9*. (An unpublished doctoral thesis) Rajkot: Saurashtra University.
- Blake, R. (2000). Computer mediated communication: A window on L2 Spanish inter language. *Language Learning & Technology*. 4(1), 120-136. Retrieved on June 11, 2014, from <http://llt.msu.edu/vol4num1/blake/default.html>.
- D.E.O. (2014). *Shalaoni Ankadakiya Mahiti*. Retrieved on 3rd March, 2014 from, http://deovadodara.org/school_details.asp.
- MOE (1964-1966). *Report of the Education Commission 1964-66*. New Delhi: Ministry of Education. Government of India.
- Gujarat State Textbook Research and Training Center. (1998). *Adhayapan Sambandhi Hetuo, English*. Gandhinagar: GSTRTC.
- Karia, L. H. (2001). *Effectiveness of Computer-Aided Learning (CAL) Programme As Self-study Technique*. (An unpublished doctoral thesis) Rajkot: Saurashtra University.
- Khirwadkar, A. (1998). *Development of Computer Software for Learning Chemistry at Std. XI*. (An unpublished doctoral thesis) Vadodara: CASE. The Maharaja sayajirao University of Baroda.
- Kitao, K. (1992). CAI no eigo kyozai no sentaku to sakusei (1-3) [Choosing and making English CAI teaching materials]. *LL Tsushin*, 166-168, 10-13, 10-13, 6-9.
- Kohli, A.L. (1984). *Techniques of Teaching English*. Delhi: Dhanpat Rai & sons.
- National Policy on Education (1986). *Ministry of Human Resource Development*. New Delhi: Government of India.
- NCERT (2005). *A report of National curriculum framework 2005*. New Delhi: NCERT.
- NCERT (2006). *Position Paper: National Focus Group on Teaching of English*. New Delhi: NCERT.
- Wren, P. & Martin, H. (2000). *High School English Grammar and Composition*. New Delhi: S. Chand & Company.

APPENDIX – K

**SOFT COPY OF CAI
PACKAGE**

APPENDIX – K

SOFT COPY OF CAI PACKAGE