



## The effects of Computer-Assisted Language Learning (Call) on ESL Tertiary level Learner's Reading Skills and their Attitudes to its usage: A Case Study of SBBU SBA

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**Abstract-** The present research study aims at investigating the effects of Computer-Assisted Language Learning (Call) on ESL Tertiary level Learner's Reading Skills and their Attitudes to its usage. CALL is growing a field in education which focuses on the utilization of computers in language teaching and learning processes. Modern technological tools have completely changed the methods and tools of teaching and learning language, especially CALL has revolutionized global educational structure of teaching and learning language. By keeping current scenario education in mind, the researcher has felt to conduct the study in which CALL experiment has been carried out to teach reading skills to the students and to see what attitude students developed after CALL experiment. To carry out the CALL experiment, the researcher picked 50 students from BBA 20 BATCH have been selected by using purposive sampling technique. First three lessons were taken from the Oxford English for undergraduates written by D.H Hove, T.A. Kirkpatrick, D.L. Kirkpatrick, and time frame of carrying out this experiment was two weeks by using GOOGLE MEET SOFTWARE OF CALL. Before CALL treatment started the participants were gone through to the pretest and after the experiment ended, the collected data from these samples were analyzed by using SPSS software 26 version in which t-test was employed to compare the pretest and posttest scores of the students. After the end of CALL treatment, the 15 students were selected for semi-structure interview The total number of questions for semi-structured interviews were seven which were adapted from 7-bipolar probability and evaluative scales to determine CALL users attitude from the studies of Almekhlafi (2001, 2003), and Pryor (1990, 1994) since the researcher implied the mix method approach in that SPSS software was used measure the quantitative part of the data and for analyzing the semi-structure interview data, content analysis was done in the way like transcribing the data, interpreting the data, coding the data, and finally extracted themes which emerged from the data.

However, the findings of this study revealed the significant effects CALL on the students' performance and reading skills improved significantly. it has been revealed from the results that there is a significant difference between the pretest and posttest scores of the students and overall, in pretest there is 45% cumulative average score by the students and after in posttest scores the average score is 61% and mean difference is of 17% score. semi-structure interview results revealed that the students enjoyed CALL experiments in terms of understanding and comprehending lessons in much better way. Overall, the students showed the interest and positive attitude towards CALL and its utilization to learn any language skill, especially reading skill. On the basis of findings of this study, the researcher suggested some recommendations such as To carry out more experiments like these, CALL and CALL softwares must be integrated in our educational system, and to raise awareness among the teachers and students regarding CALL and modern tools of technology.

**Keywords:** CALL, Reading and CALL, Attitude of the Learners, CALL in Language Learning and Teaching

### I. INTRODUCTION

CALL stands for Computer Assisted Language Learning and is a field in education which focuses on the utilization of computers in language teaching and learning processes. There are many terms, which are like CALL. Most of them "are no longer in common use" (Beatty, 2010) or have been replaced by different, modernized terms. However, it is important to mention them, because some of these terms may come up in research literature and the term CALL is not always used when people refer to technology assisted language learning. For example, in North America it was common to use the term CALI - Computer-Assisted Language Instruction. CAL - Computer-Assisted Learning is a term used in relation to any computer-assisted learning. When the emphasis is put on the teacher, it is CALT - Computer Assisted

Language Teaching or when more broadly, CAT – Computer-Assisted Teaching. There is also such type of computer- assisted learning which concentrates on the computer-based discussion and it is called CMC – Computer-Mediated Communication. Such way of using technology, although it is not specified for learning, it may be used for it efficiently, learners may engage in a conversation with a native-speaker and they do not have to move anywhere. All in all, the aim of using computer in language teaching and learning processes is ICALL – Intelligent Computer-Assisted Language Learning, it "depicts programming programs which endeavor to tweak criticism includes that take into account individual learners" input." (Beatty, 2010) Students could obtain automatic responses when they would complete a task on their computers, so they would still know where they make mistakes and what needs to be ameliorated. However, the term "computer" may be understood differently. For some people, the first notion which comes to mind when they think of a computer is a laptop or a desktop computer. However, in CALL, according to Philip Hubbard (2009) and Mike Levy (2013), the definition of a computer is much broader. Therefore, I think it should be clarified at this early stage of the thesis what exactly the word computer in CALL refers to.

A computer can be anything that has a computer of sorts in it. Therefore, apart from the standard desktop computer and laptop, we could also add: tablets, smartphones, TVs, e-book readers, mp3/mp4 players, electronic whiteboards, electronic toys, electronic dictionaries, and possibly many other, yet not as common devices. In my view, all the appliances mentioned above may be used in assisting language learning. Nevertheless, as it was mentioned in the introduction, they should not be used to replace a teacher, but rather to help him throughout the teaching process. The learner does not learn directly from it but uses it to improve his knowledge.

## II. REVIEW OF LITERATURE

CALL has existed as a cover of numerous novel instructive settings and scholarly societies. While teachers who have had formal arrangement fully expecting state funded school vocations are probably going to have encountered comparative planning set up by universities of training, CALL experts in advanced education Departments of Linguistics, Education, English, Instructional Technology, Computer Science, Communications and Design have all added to CALL premises of teaching and learning process. This mind-boggling combination of various fields which has brought about a differing set of desires, practices, and guidelines. It is hard to locate any two language educators who have gotten a similar degree and kind of planning in language teaching method, significantly less indistinguishable arrangement explicitly designed for the utilization of CALL theory, practices, and materials.

Warschauer and Healey (1998) give a review of the roughly thirty-year history of CALL. They distinguish an improvement compatible with the curricular change during a similar period. Behaviorist CALL, comprising basically of drill work, Integrative CALL, was imagined in the last part of the 1950's and actualized through the 1960's and 1970's. Communicative CALL, which gave to a greater degree an emphasis on the utilization of language instead of the language itself, started in the late1970's and proceeded through the 1980's. The experts recommend that integrative CALL is presently dominating practically speaking. Integrative CALL perceives the coordinated idea of innovation as an apparatus instead of a disconnected procedure. This new methodology consolidates numerous parts of constructivism (Healey and Klinghammer, 2002)

### Reading and CALL

As new advanced technological tools develop, there is a developing interest to incorporate technological tools into language classrooms to advance academic accomplishment among students. There are many reading programs that can bolster learning at all important levels of reading abilities. Studies have been indicated that CALL significantly affects improving reading accomplishment of the learners (Macaruo& Rodman, 2011; Meihami and Varmaghani.2013; and Sadeghi &Soltanian, 2010). To begin with Macaruso and Rodman (2011 declared that computer software programs have become a significant apparatus for teaching and improving reading skills. Many software programs center around instructing reading skills that serve various learners' needs. software designers have concentrated intensely on reading ability, for example, insight, familiarity, and appreciation. Additionally, CALL programs allow reading exercises to be introduced in an exceptionally organized and methodical manner in order to give restorative input and guidance to students.

## Attitude of the Learners towards CALL

Bulut and Abuseleek (2007) investigated the association between students' mentality toward CALL and their achievement of language aptitudes (e.g., talking, listening, reading, writing). They found that learners had elevating mien toward CALL, especially in term of its ability to support their listening and writing skills. Besides, Al Rahimia and Yadollahi (2011) researched students' attitude toward the usage of CALL and argued that learner had uplifting attitude toward the use of CALL regardless of their age and information with utilizing of a computer. Most researchers believed CALL to be a gainful instrument in learning a target language. This current investigation resembles different investigations (Almekhlafi, 2006; Bhatti, 2013; Marzban, 2010) regarding exploring the effect of CALL on learners reading accomplishment. Despite that, a portion of the contrasts between the current study and others (Bhatti, 2013; Marzban, 2010) are the unique situation and the members as it will explore the impact of CALL on ESL tertiary level learner's achievement of reading skill and their attitudes to its usage in Pakistani context.

## CALL in Language Learning and Teaching

Different Linguists and analysts have vowed the centrality of using CALL in learning and teaching language skills (e.g., AmenyedziLartey, and Dzomeku 2011 ' Chang, 2007;Chapelle, 2009; DelliCarpini, 2012; Haider & Chowdhury, 2012; Joshi , 2012; Knowles, 2004; aba' h et al, 2009; and Wang and Hefferan, 2010). "CALL is a language learning and teaching method, whereby a computer is used as a tool for presenting work, helping learners, evaluating materials, and has an interactive side" (Jafarian, Soori, and Kafpour 2012). However, Knowles (2004) communicated that learning and teaching language skills requires enough effort and capacity concerning the student to achieve their target. As demonstrated by Chang (2007), In the CALL classroom, students are similarly more liberated to learn than in the traditional classroom. CALL classroom learners learn by controlling time and space. Thus, they feel freer, inspired, and assured of their own learning style and also enjoy their own pace.

Besides, a significant part of the learning happens when learners are working independently (Chang, 2007). Chapell (2009) found that CALL can make more open doors for students to gain proficiency with a second language adequately. Likewise, CALL rose as the language teacher moved from a teacher-centered approach to a student-centered approach (Naba'h et al 2009). Moreover, they saw that the student needs to be freer and more independent when learning a language. Also, Wang and Hefferan (2010) expressed that teachers assume a significant job in CALL guidance since they are the person who pick the program for Student to get in and begin their learning process. Besides, Amenedzi., Larty, and Ozomeku, (2011) expressed that most teachers use computers to compose exercise plans, Preparing the necessary materials for teaching, and recording students' grades and numbering them. Hence, teachers need to be aware of the various projects and the uses of these projects as well. Likewise, they must fit for adjusting the projects to address learners' issues. Teachers with academic capability in utilizing computers can have every kind of effect in the learning procedure and are more viable than different teachers in communicating information and teaching to their learners. like, DelliCarpini (2012) demonstrated that utilizing CALL can improve language proficiency. Inclining a subsequent language depends more on students' self-rule, autonomy, and association than on depending teacher.

These days, computers are generally brought in second language classes. Basoz and Cabukcu (2014), in their study of the adequacy of CALL on students' vocabulary accomplishment, relegated students into two groups: a computer assisted vocabulary instruction (CAVI) and communication language instruction (CLI) group. The outcomes uncovered that there was no huge contrast between the two groups. Moreover, Hartmann, (2014) led a quantitative research to figure out the impacts of CALL in a secondary school students. Students were divided into two groups who were engaged with this research: students who utilized CALL to develop their writing skills and students who did not. In the wake of collecting the information, the findings revealed that there was no factually immense development in the writing accomplishment of students who utilized CALL. Even Though these adverse outcomes, numerous researchers are yet researching the effect of CALL on students' accomplishment in various language capabilities and language skills utilizing diverse CALL applications and softwares.

### III. METHODOLOGY

#### The Participants

Fifty (50) undergraduates from SBBU SBA Nawabshah participated in this study, thirty (30) boys and twenty (20) girls. All participants were between the ages of 18-23 years and their field of discipline was BBA 20 BATCH, 25 students were selected from SECTION A and 25 students were chosen from SECTION B respectively.

#### Overview of Research Design

The research design will be used for this study is mixed methodology. The data will be gathered in a descriptive form with respect to the scope and nature of the issue. Creswell (2003) takes a mixed methodology to be a process of understanding social and human problem consist of constructing a complete picture and complex designed by reporting detailed views of informants in their natural settings. The mix method approach will be used because it provides insights that would assist the reader to visualize the experiences of the people (Cohen et al., 2011).

#### Instrument Designing and Adaptation

Research instruments choice and planning is one the provoking undertaking for researcher to answer the proposed questions of the study and reach some best conclusions, results, and findings of the study. These instruments are establishments of an examination for information assortment and investigation one the apparatus for this examination, t-test questions and semi-structure interviews were selected and designed. Accordingly, the researcher has painstakingly chosen research tools to direct this investigation.

#### Structure of the Employed Test Questions

The following table is giving an extensive portrayal of the test questions and their sources. The design of the sample study with assets has been introduced in Table 01.

#### Structure of Test with Sources

Item No	Item	Source
01	Paragraph Reading	The Beach Road
02	Identification of the Words and phrases in Context	The Beach Road
03	Answering the Questions	The Beach Road
04	Reading for Exercise	The Age of the Probot
05	Fill in the blanks by putting appropriate words.	The Age of the Probot
06	Use of Words and phrases in context	The Age of the Probot
07	Passage Reading	The Age of the Probot
08	Pre Reading of unit "THE GENTLE GIANTS".	The Gentle Giants
09	Identifications: The words and phrases in the context	The Gentle Giants
10	Think about it Exercise	The Gentle Giants

**Sources:**First three lessons were taken from the Oxford English book for undergraduates written by D.H Hove, T.A. Kirkpatrick, D.L.

#### Semi-structured Interviews Questions

Following is given the comprehensive detail of Semi-Structure Interviews questions in the table

S. No	Item
01	The Overall Attitude of experimental group Towards Computer-Assisted Language Learning (CALL).

02	Perceiving Utility Of Using Computer-Assisted Language Learning (CALL).
03	Perceived Knowledge Gain Of Reading Skills Before And After The Use Of Computer-Assisted Language Learning (CALL).
04	Development Of The Reading Comprehension Before And After The Use Of Computer-Assisted Language Learning (CALL).
05	Motivation To Use Computer-Assisted Language Learning (CALL) In The Future.
06	Advantages Of Using Computer-Assisted Language Learning (CALL).
07	Disadvantages Of Using Computer-Assisted Language Learning (CALL).

Sources: adapted from use of CALL by using 7-bipolar probability and evaluative scales to determine CALL users attitude, adapted from Almekhlafi (2001, 2003), and Pryor (1990, 1994).

### Guiding Research Questions of the Study

1. To what extent can CALL affect students' achievement in reading?
2. How do students perceive using CALL?
3. Is there any significant difference between students' results before and after the use of CALL?

### Data Analysis Procedure

To analyze the collected data during mixed methods techniques the researcher has given simultaneous planning and qualitative information was focused on over quantitative information on the grounds that qualitative information can give a researcher more extensive result. The information were gathered and checked independently yet during translation of these two types of information were contrasted and one another. This was done to discover extensive outcomes, this solidification and approval system is known as 'equal mixed method' (Onwuegbuzie et al., 2003).

### Quantitative Data Analysis

An independent t-test will be the appropriate tool for data analysis since there are two groups who are being evaluated twice in this study through pretest and posttest. However, the t-test will be comparing the obtained scores of the control group participants and experimental group participants significantly. The pretest and posttest consists of overall 100 score which are divided into 10 different themes and names. Each test question carries four options in which participants were given time of 1 hour and 30 minutes to finish their test.

### Qualitative Data Analysis

The researcher transcribed the audio-recorded semi-structure interview into word document in order to do the analysis and figure out the most repeated themes revealed by the respondents. The responses which were made by the participants in the context the frequency and exposition of only main ideas were considered by doing content analysis. Content analysis is defined as a research technique for making replicable and valid inferences from text to the context of their use. This technique was used because it enables the researcher to achieve a process by which, data collected from semi-structured interviews could be classified from many words and sentences into much fewer categories or codes (Weber, 1990).

## IV. RESULTS AND DISCUSSION

### Descriptive Statistics Results

In this section we discuss the results of the present study step by step.

Student	Marks Before	Marks After	Difference
1	23.00	30.00	7
2	32.00	21.00	-11
3	26.00	26.00	0
4	18.00	24.00	6
5	20.00	30.00	10

6	37.00	39.00	2
7	22.00	27.00	5
8	20.00	28.00	8
9	25.00	30.00	5
10	22.00	26.00	4
11	55.00	80.00	35
12	40.00	68.00	28
13	49.00	73.00	24
14	54.00	79.00	25
15	50.00	73.00	23
16	46.00	71.00	25
17	53.00	77.00	24
18	49.00	74.00	25
19	47.00	67.00	20
20	60.00	85.00	25
21	55.00	76.00	21
22	56.00	84.00	28
23	46.00	77.00	31
24	40.00	65.00	25
25	54.00	81.00	27
26	56.00	73.00	17
27	60.00	80.00	20
28	45.00	76.00	31
29	50.00	70.00	20
30	55.00	85.00	30
31	41.00	65.00	24
32	60.00	75.00	15
33	57.00	82.00	25
34	47.00	69.00	22
35	40.00	60.00	20
36	57.00	81.00	24
37	45.00	70.00	25
38	50.00	72.00	22
39	50.00	69.00	19
40	56.00	71.00	15
41	60.00	80.00	20
42	55.00	75.00	20
43	60.00	80.00	20
44	52.00	70.00	18
45	50.00	70.00	20
46	40.00	38.00	-2
47	35.00	38.00	3
48	50.00	55.00	5
49	37.00	54.00	17
50	44.00	37.00	-7
Mean	45.0200	62.1200	17.1

Table 1 presents the descriptive statistics test held as a pretest and posttest. As it can be clearly seen, the mean score of the post-test group (62.1200.70) is higher than the pre-test group (45.0200). The mean value of the difference between each group is 17.1. However, the independent sample t-test did not show any significant difference in the mean scores of the control and experimental groups on the test ( $t = 1.86$ ,  $df = 49$ ,  $p > .05$ ); thus, ensured the researcher of the homogeneity of both experimental and control groups in terms of their pronunciation skills at the entry level.

### Paired Sample Statistics

		N	Mean	Std. Deviation	Std. Error Mean
Pair 1	Pre-test	50	45.02	12.32136	1.74250
	Post-test	50	62.12	20.31551	2.87301

Table 2 shows the results of paired sample statistics of Pre-test and Posttest. Above results shows that mean of the pre-test is 45.02 and post-test is 62.12. The standard deviation scores of both tests are 12.32136 and 20.31551. While results of standard error from the mean are 1.74250 and 2.87301, respectively.

### Paired Sample Correlation

		N	Correlation	Sig.
Pair 1	Pre-test and Post-test	50	0.916	0.000

Table 3 explains the results of paired sample correlation between two groups (Pre-test and Post-test). It can be clearly seen from the above results that there is strong positive correlation occurs between both groups. It means we can say if we give training to respondents than their results will be good.

### Paired Sample Test

	Paired Differences					t	Df	Sig. (2 tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pre-test and Post Test	17.1	10.28224	1.45413	14.1780	20.022	11.760	49	0.000

The above tables show the findings of Paired Sample t-test. The mean of pre-test score is 45.02, while the mean of the post-test score is 62.12. Above results discusses that the standard deviation of the pre-test and post-test are 12.32136 and 20.31551, respectively. While the standard error of the mean of pre-test is 1.74250 and post-test is 2.87301. The data were subjected to the t test for paired samples, with the results showing a statistically significant gain ( $t = 11.760$ ,  $n = 50$ ,  $p = 0.000$ ). The effect size is 17.1, which means that the post test scores are more than a standard deviation better than the pre-test scores. This is considered as a high effect size.

### Results Of Semi-Structured Interviews

Overall results from semi-structured interviews have been presented in the following table 4.5 for better understanding.

Semi-structure interview questions	Emerging themes from the responses of participants
The Overall Attitude of the participants Towards CALL	<i>experience was good, good way of teaching learning, The ease and fun, availability of many options, independent space. Boost up the confidence, overall positive attitude.</i>
Perceiving Utility Of Using CALL	<i>without wasting lots of money and less time-consuming, learning at doorstep, standard mode of learning and teaching process, availability of sources in the form of notes, slides, videos so these different kinds of sources, quality of learning and teaching experience, CALL as the good sign..</i>
Perceived Knowledge Gain Of Reading Skills Before And After The Use Of CALL	<i>computers are the basics needs now, availability of many books without any charges, a lot of material available on the fingertips, enhancing vocabulary by using online dictionaries, level of reading skills have immensely developed after using CALL, reading</i>

	<i>books anywhere regardless of time and place because its easy access and cheap availability.</i>
Development Of The Reading Comprehension Before And After The Use Of CALL	<i>CALL is acting as my mentor, teacher, and tutor to read and comprehend anything, access of different dictionary apps websites and google, we read more things online because of their availability, getting proper and to the point explanation of many concepts, significant increase in the reading capability of ours after going through CALL experiment.</i>
Motivation To Use CALL In The Future	<i>In the present scenario, access to CALL is privilege for us, CALL is the only way which will be used in Future for teaching and learning, CALL is best the replacement of traditional sources, Computer is conducive in many ways, especially in teaching methods, With the help this CALL, teaching a large class become easy, with audio and video visual, CALL provides a lot of ways and opportunities to develop comprehension level.</i>
Advantages Of Using CALL	<i>CALL is less time consuming, provides lifetime sources, easy to manage and learn in a specific time, and get knowledge based on our weakness nothing more or less, CALL erases any ambiguity created in the learning process, various programs of CALL such as games, animated graphics, problems solving activity can create many ways learners to learn language skills. It take less time, storage capacity, easy to search, video of every subject, Better presentation of information and Quick data processing etc. It is individualized and everybody has a freedom to focus her/his work without getting affected from other fellow students and learn independently.</i>
Disadvantages Of Using CALL	<i>CALL diverts our mind, lack of awareness on how to use technology irritates us, CALL has various disadvantages like educational expenditure, internet access, electricity etc, unavailability of authentic resources, less reliable material, it snatches natural learning processes of learners, Students waste more time than conventional system of teaching and learning, weakens cognitive abilities of ours, create communication gap between student and teacher.</i>

## V. CONCLUSION

After the careful analysis of the provided data and findings which came out from the study, it can be summed up that the students showed a lot of interest in CALL experiment and significantly improved in their reading skill which could be sorted out from their pretest and posttest scores. Moreover, their overall attitude towards CALL and its usage remained positive throughout this study. CALL can be more beneficial if recommendations of this study will be taken into consideration and similar experiments can be taken by taking more sample size from other departments except BBA 20 because this study is just limited to the BBA 20 batch at SBBU SBA NAWABSHAH, SINDH, PAKISTAN and focused on the reading skill of language by using CALL.

## REFERENCES

- [1] Almekhlafi, A. (2006). The effect of computer assisted language learning (CALL) on United Arab



- Emirates English as a foreign language (EFL) school students' achievement and attitudes. *Journal of interactive learning research*, 17(2).
- [2] Beatty, K. (2010). Teaching and researching computer-assisted language learning. Harlow: Longman.
- [3] Hubbard, P. (2009). Computer assisted language learning. London: Routledge.
- [4] Levy, M., & Stockwell, G. (2013). CALL dimensions: Options and issues in computer assisted language learning. Mahwah, N.J.: L. Erlbaum Associates.
- [5] Warschauer, M., & Healey, D. (1998). Computers and language learning: An overview. *Language Teaching*, 31, 57-71. Retrieved November 19, 2001, from <http://www.gse.uci.edu/markw/overview.html>.
- [6] Healey, D. & Klinghammer, S. (2002). Constructing meaning with computers. (Guest editors' note). *TESOL Journal*, 11(3), 3.
- [7] Macaruso, P. & Rodman, (2011). Benefits of computer-assisted instruction to support reading acquisition in English language learners. *Bilingual Research Journal*, 3-, 301 -315.
- [8] Bulut, D. (2007). Learner attitude toward call and level of achievement in basic language skills. *Sosyal Bilimler Enstitüsü Dergisi Say*, 23(2), 103-126.
- [9] Abu Seileek, A. & Abu Sa'aleek, A. (2012). Computer Assisted Language Learning:
- [10] Bhatti, T. (2013). Teaching reading through computer-assisted language learning.
- [11] Chang, L. (2007). The effect of using call on advanced Chinese foreign language learner. *The Computer Assisted Language Instruction Consortium (CALICO) Journal*, 2-(2), 331-353
- [12] Chapelle, C. (2009). The relationship between second language acquisition theory and computer-assisted language learning. *The Modern Language Journal*, 93, *Computer Science*, 3, 3-10.
- [13] Dulli Carpini, M. (2012). Building computer technology skills in TESOL teacher education. *Language Learning & Technology*, 16(2), 14-23.
- [14] Hartmann, C. (2014). *The effect of computer-assisted-language learning on Micronesian student ' writing achievement*. Retrieved from Pro Quest Dissertations and Theses database. (UMI 3629444). *International Journal of Basic Science & Applied Research*, 2 (5), 531-537. *International Letter of Social and Humanistic Sciences*, 9, 49-58. *Journal of Communication & Education*. Retrieved from
- [15] Knowles, L. (2004). The evolution of CALL. *Journal of Communication & Education*, 1-38.
- [16] Rahimia, M. & Yadollahi, S. (2011). Foreign language learning attitude as a predictor of attitudes towards computer-assisted language learning. *Procedia Computer Science*, 3, 167-174
- [17] Cohen, L.; Manion, L., and Morrison, K. (2011) *Research methods in Education*. Abington: Routledge.
- [18] Creswell, J.W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage Publications.
- [19] Weber, R.P. (1990). *Basic Content Analysis*. Thousand Oaks: CA: Sage.