Philosophy of Research in Applied Linguistics

Mohammad Ali Torabi[1]
Department of English, Ahar Branch, Islamic Azad University,
Ahar, Iran

The term " philosophy of research in applied linguistics" may be considered to cover a wide range of academically and philosophically important issues that have recently begun to capture the attention of scholars in research programs in their efforts, on the one hand, to reflect upon how they have traditionally approached their scientific practices and, on the other, to reconsider and redefine their research priorities in the light of new findings and revise their methodologies and designs in the very scope of their field. Language researcher's personal commitments and presumptions and other issues of central importance will, definitely, influence future developments in research programs in applied linguistics and possibly result in fundamental changes in the way researchers in linguistics currently view their own work as well as research priorities in general. The research topics and approaches applied in the field of philosophy of research in applied linguistics, definitely, involve various philosophical and theoretical commitments, as well as methodological preferences and practices. In the present paper, alternative beliefs about the fundamental issues of the philosophy of research in applied linguistics and the central issues in research methodologies have been discussed.
Keywords: Case Study, Construct, Cultural Salience, Deductivism, Inductivism, Methodological Triangulation in Applied Linguistics, Operational Definitions

---

[1] Corresponding Author. Email: ma-torabi@tabrizu.ac.ir

This paper introduces the main concepts of research philosophy alternatives and research methodologies. Deductivism vs. inductivism in research methodology have been taken into consideration. Philosophical and methodological background of positivism and post-positivism and phenomenological trends have all been discussed. It has been argued that the distinction between quantitative and qualitative approaches in research issues has sometimes been overstated and that triangulation of methods in research methodology is widely adopted in contemporary research programs. The characteristics of scientific methodology in research issues and the basic elements of it constitute another important part of the present study.

Philosophy and Fundamental Question of Philosophy of Research in Applied Linguistics

The term 'philosophy' is formed from two Greek words 'philein' and 'sophia' meaning ' to love wisdom. This is of course only partially satisfactory. We are enthusiastically led to ask, what is the wisdom we are to love, and how it is to be distinguished from knowledge and folly ? Philosophy, in the proper sense of the term, is not a presumptuous endeavor to explain the issues of the world by means of any extraordinary insight or cunning, but has its origin and value in an attempt to give a comprehensive and reasonable account of our personal attitude towards the more serious questions of life (Stroll & Popkin: 1-5).Thus, philosophy is a deliberate attempt to gain a reasoned conception of the universe and man's place in it. In other words, philosophy is a persistent attempt to gain insight into the nature of the world and ourselves by means of systematic reflection and research.(F.1)

Contemporary thinkers assert that philosophy plays an important, even fundamental role, in man's intellectual life. Nevertheless, philosophers still disagree about the comprehensive definition of the concept 'philosophy. To some, philosophy represents a systematic inquiry into the very nature of those principles which underlie our common-sense beliefs; for others, philosophy is considered as the attempt to discover only those principles which are rationally justifiable (Stroll & Popkin:2) .

Most of these definitions exhibit some aspect of the discipline, but most are misleading in some respect. Indeed, no simple definition of philosophy, capsulated in a phrase, is likely to do justice to the variety of activities which have been, and which still are, subsumed under that cover term. According to Caygill,H. (1995, P.320):

> … Since philosophizing can not come to end, even in the critical philosophy, the definition of philosophy remains open and subject to current and future philosophizing. The questions which determine the field of philosophy are inseparable from the interests of human reason, and can not ever be given a dogmatic answer. For this reason, it is impossible to give a definition of the philosophy which would answer these questions: such a philosophy would mark the end of philosophizing and the death of philosophy itself.

Strictly speaking, in its narrow and specific philosophical sense, the fundamental question of philosophy is the question of the relationship of consciousness to being, of thinking to matter and nature, examined from two aspects: first, what is primary – spirit or nature, matter or consciousness - and second, how is knowledge of the world related to the world itself; or put it differently, does consciousness correspond to being, and is it capable of truthfully reflecting the world ? A consistent solution of the fundamental question of philosophy is possible only if both sides are considered.

There are numerous reasons why an understanding of philosophical issues is important specifically in language research methodology.Lepore. and Smith (2008: 60) state that :

> All philosophy is " *Critique of Language* " and the work by Wittgenstein (i.e., *Tractatus Logico-Philosophicus* (1921)) remains a classic presentation of the thesis that philosophy can only be undertaken through the critical study of language. … and   as a result there has been a two way relationship in which conceptions of language and of philosophy have been developed together. But one theme has been central :

that language is not just the contingent expression of some wholly independent reality; instead there is an internal relationship between the two. What remains controversial is the nature of this internal relation and thus of the role of language in our conception of reality.

In fact, the indirectness and circular nature of philosophical systematic inquiry in itself is useful, as it often serves as an incentive to in-depth thinking, and engenders more questions in relation to the topic of research. According to Proctor (1998:47) the interrelationship between ontological (what is the nature of reality?), epistemological (what can be known?) , and methodological (how can a researcher discover what he/she believes can be known?)levels of inquiry are fascinating philosophical issues that may be followed by researchers.

Definitely, an understanding of the philosophical issues in the methodology of research helps the researcher develop and, presumably, re-define or re-evaluate the adopted general research strategy against the different existing methodologies. Moreover, this knowledge of philosophical issues can be beneficial to the researcher to be creative and innovative in either adopting or adapting a specific methodology of research.

Issues of Philosophy of Research in Applied Linguistics: Research Philosophy Alternatives

What is meant by research, and what are the specifications and components of good research questions? The Compact Edition of The Oxford English Dictionary (1984) defined ' research' as ' the act of searching (closely or carefully) an investigation or an inquiry for or after a specified thing or reason. (It) is an investigation directed to the discovery of some fact by careful consideration or study of a subject; a course of critical, scholarly, or scientific inquiry.   (As a verb) : to study (something) thoroughly.' Thus, in its fundamental and simplest form, research is a way of finding out answers to the proposed questions. Put it differently, research is a systematic and objective process of collecting and   analyzing   information   that   will

investigate a research problem or question, or help researchers obtain a more complete and comprehensive understanding of a situation. Such analysis can lead to the formation of theories, generalizations or principles that are the results or causes of a particular phenomenon. The basic components of such approach is the systematic approach to the question, and formulating a comprehensive answer. Put it another way, research should be formal, systematic and intensive towards attaining a correct answer to the question or problem. So, in the first place, research is definitely an inquiry with two basic components: process and product. The process aspect of research is about an area of inquiry and how it is pursued. The product aspect of research concerns the knowledge generated from the process (Nunan: 2). In fact, research is a process of formulating questions, problems or hypotheses; collecting data or evidence to predefined and specific question(s) or problems or hypotheses; and then analyzing or interpreting the data according to a pre-established and pre-defined method.Thus, research, as a systematic process of inquiry, consists of three basic elements or components: (1) a question, problem, or hypothesis, (2) data, and (3) analysis and interpretation of the data. (F.2)

Hypothesis in Research Programs

Forming a hypothesis in research is the most important component of research. Hypothesis is an assumption based on a series of facts for inferring the existence of an object, or the relation or cause of phenomenon, without actual proof. The corresponding judgment, conclusion or inference is called hypothetical. Runes (1992:132) defines hypothesis in general as :

> an assumption, a supposition, a conjecture, a postulate, a condition, probability a principle, a premise, a ground or foundation, a tentative explanation, a probable cause, a theoretical   situation, an academic question, a specified consideration, a conceded statement, a theory or view for debate or action, a likely relation, the conditioning of one thing

by another. *In methodology,* (hypothesis) is a principle, offered as a conditional explanation of a fact or facts; or again a provisional assumption about the ground of certain phenomena, used as a guiding norm in making observations and experiments until verified or disproved by   subsequent evidence.

The need for hypothesis making arises in science in general and human sciences in particular when the connection between, or the cause of, phenomena is not fully clear although many of the circumstances preceding or accompanying these phenomena are known. Hypothesis is also used when a picture of the past has to be drawn about the future development of a phenomenon on the strength of the past and present. But the formulation of hypothesis on the basis of definite facts is only the first step. Being no more than probable a hypothesis calls for verification and proof. If the verification is negative, definitely, the hypothesis is either revised or completely rejected (Mackey & Gass: pp. 2-11).

Research Methodology: Deductive and Inductive Reasoning in Logic and in Research Programs

Methodology may be defined as the aggregate of the ways of investigating a given science or inquiry. In other words, methodology is the systematic analysis and organization of the rational and experimental principles and processes which must guide a scientific inquiry, or which constitute the structure of the special science more particularly.The most basic point that needs to be clarified as an introduction to any discussion of method, in any field, is that how to do something must surely depend, first and foremost, on what it is we want to do and why we want to do it. It is therefore very difficult to discuss methodology sensibly except in the context of a particular research issue. Only after a research issue has been decided can decisions be made as to what data would be relevant to its analysis and how such data will best be obtained. This remains true whatever paradigm is adopted with regard to the choice to be made between a theory-first (theory-

testing) or a data-first (theory-building) approach to research in general (F.3).

Theory Building / Theory-testing

Brown (cited in Davis & Elder, 2007) discusses theory generation and distinguishes theory forming and theory testing. According to Brown, the first approach i.e., theory building, in research " … may begin with some very general framing questions, but will typically have no hypothesis to start with,…In contrast, theory testing research begins with a set of research questions and hypotheses" (p.485).

The first position presumes that it is helpful to conduct empirical investigation before formulating an explicit theory (that would permit precise prediction and hypothesis testing), on the grounds that empirical investigation motivated by informed speculation may itself be productive for theory-building.

The second position presumes that meaningful practical experimentation depends upon first proposing and formulating a theory which will make predictions which you can then test by empirical investigation, for the further refinement of the original theory.

Both kinds of logical reasoning are concerned with distinguishing correct from incorrect reasoning. Vossoughi (2000 : 269) quotes Brown(1987) , that " … inductive and deductive reasonings are two polar aspects of the generalization process…. "

Inductive logic comes into play in determining the truth of a belief when the reasons in favor of it do not purport to be conclusive. The phrase 'purport to be conclusive' has a technical use here. To say that reasons are 'conclusive', in this context, is to say that if the statements which express the supporting reasons in a research are true, then logically it will be impossible for the statements which express the belief to be false. When the word is used in this sense, even in research, it is evident that to obtain conclusive evidence for an assumption is to give it the strongest possible backing. Inductive logic is appealed to only in those circumstances where the evidence purports not to establish a belief conclusively , but at most to confer upon it a degree of probability.

Vossoughi (2000: 270) quoting McLaughlin (1991), defines deductive logic as being a 'top-down ' theory that differs from inductive logic in that it provides techniques for determining when an inference has conclusive support in its favor, or when an argument is valid. It attempts to do this by constructing a small group of simple rules which permit each grain of information contained in the supporting statements to be separately extracted from them, but in such a way that the extracting process (i.e., reasoning) will never result in false conclusions being derived from true premises. Unlike inductive logic, deductive logic deals with reasoning that purports to be conclusive. To make the same point in a somewhat different terminology, deductive approach may be considered as an act of proving or inferring conclusion (effect) with certainty and necessity from one or more premises by the laws of logic (Caygill: 151-153).

Hypothetico-deductive Method in Applied Linguistics

Hypothetico-deductive method is a method of scientific inference based exclusively on deductive techniques. Attempts have been made in scientific research to draw a line of distinction between the deductive method and other methods (such as the inductive) and to define deductive reasoning as excluding experience and laying excessive stress on deduction in research. However, deduction and induction are interconnected and deductive reasoning is based on many centuries of man's practical and cognitive effort. Deductive method is one of the valid methods of scientific inference, used as a rule, to systematize empirical data after they have been accumulated and theoretically interpreted, in order to infer all pertinent effects more strictly and consistently (Runes: 113). This yields new knowledge, among other things, an aggregate of possible interpretations of a deductively formulated theory. Deductive method is more precisely termed as hypothetico-deductive approach, which is a methodological device whereby certain propositions are advanced as hypothetical and subjected to verification by inferring effects on the strength of available valid knowledge and comparing these effects to the facts. Hypothetico-deductive method is an important element of scientific

methodology. It is used in association with a number of methodological operations: comparison of the facts; revision of existing concepts; formulation of new concepts; agreement of hypotheses with other theoretical tenets, etc. Generally speaking, in practice, in hypothetico-deductive approach, deductive research begins with an hypothesis or theory and then searches for evidence either to support or refute that hypothesis or theory (F.4) .

Inductive Method

Induction (Latin, inductio, from inducere – to lead in) is one of the known types of reasoning and a method of study. As a form of reasoning, induction makes possible the shift from single facts to general propositions. Generally, a scientific induction represents a conclusion concerning a whole class based on a number of the elements of that class, but here the most important point is the discovery of essential connections or inter- relationships between the elements studied which show that the given specification or feature must be possessed by the whole class. Hence, methods of showing the essential connections and relationships are of prime importance in scientific inductive research. Thus, in general, inductivism seeks to derive general principles, theories, or 'truths' from an investigation and documentation of single instances. (Nunan:13).

Deductivism vs. Inductivism in Research Programs in Applied Linguistics

The important choice between the two alternatives (i.e., deductive or inductive research methods) has been elaborated and discussed by researchers. In research based on deductive method, a conceptual and theoretical framework is developed which is then tested by empirical reality, and particular instances are deduced from general statements. Deductive research is a study in which theory is tested by empirical observation of the data. Practically, in deductive approach, argument moves from the general to the particular. But in research based on inductive method, theory is developed from the observation of empirical reality and general inferences are induced from particular instances . This procedure is

the reverse of the deductive method since it involves moving from particulars to statements of general nature .

Several research methodologists argue that the two above mentioned methods are not mutually exclusive in applied linguistics; so they can be used in the same study. According to the same researchers, they may be considered as belonging to a continuum from pure deduction (theory-testing) to pure induction (theory – building). Definitely, the nature of the research can determine the point on the continuum to follow (F.4).

Philosophical Foundations of Research: Research Philosophy Alternatives in Linguistics

According to Auguste Comte (1798-1857), the forerunner of positivism in sociology, the highest form of knowledge is simple description, presumably, of sensory phenomena. One of the main principles of the positivist methodology of science is extreme phenomenalism, according to which, the task of science is declared to be pure description of facts and not their explanations (Runes:60,243). In the 20th century, various versions of neo-positivism, among which, logical positivism is the most influential, emerged. According to Klausner and Kuntz, (1961: 87):

Logical positivists agree on at least three points : First, they belong to and desire to extend the empiricist tradition. … Secondly, the positivists tend to regard the primary task of philosophy to be the clarification of language, through the process of logical analysis. …Thirdly, they assert that all questions incapable of empirical verification are meaningless.

Logical positivism became widespread as the ideological basis of the neo-positivist 'scientific philosophy '. According to logical positivism a genuinely scientific philosophy is possible only through the logical analysis of science, in order to determine the empirically verifiable meaning of scientific concepts and assertions. By verifiability principle a conclusion cannot be valid unless it can be verified by direct observation of reality. Of course, positivists were more successful in analyzing physical and natural data; but were less successful in the application of its paradigm in

studying human sciences. Because human behavior is far more complex and sophisticated that cannot be accounted by mere observation.Thinkers and researchers follow new- positivist trend to make their whole process of inquiry more logical and systematic (F.5).

For any research program, selecting an overall research philosophy is, primarily, the choice between two primary alternatives: between a positivist or phenomenological philosophy. According to the tenets of modern positivist paradigm, the world is external and objective, while the observer is independent. The researcher should essentially focus on objective reality and facts and look for causality and basic laws. He/she takes large samples and reduces phenomenon under investigation to simplest elements and constituents. Moreover, following deductive thinking he/she should first formulate hypotheses and then test them against existing data. In this approach, operationalizing concepts in order to measure them is considered an important step because concepts need to be operationalized in a way that enables facts to be measured quantitatively (Runes: 243).

According to the tenets of phenomenological paradigm in the philosophy of research the world is socially structured and subjective while the observer is not independent, but is part of what is practically observed. He/she interacts with those being researched, and findings are the outcome of this interactive process. He/she should try to find out what is happening, take small samples and investigate in depth or over time, and look at the totality of each situation. Moreover, following inductive thinking, he/she develops suppositions from the existing data. In this approach, multiple methods and procedures (i.e., qualitative and quantitative) are used to analyze the phenomena. Here, similar to positivism, precision, logical reasoning and attention to evidence are considered as important factors; but unlike positivism, this is not limited to what can be physically observed. Thus, multiple perspectives can be used to define research goals, to choose appropriate questions, methods and analysis and to interpret research results and findings.

Positivism vs. Post-positivism

Before any decision on research method, a clear picture of the two extremes of research philosophy, i.e., positivism and post-positivism, need to be surveyed. It is important to note that while quantitative research methods (e.g., positivist philosophies) and qualitative methods (e.g. post-positivist philosophies) are often seen as two opposing and polarized trends, they are most often used in conjunction. In the history of science, the distinction between the two approaches is often overstated and triangulation of methods in current day research is followed. Definitely, specific distinction between the two trends, (i.e., qualitative and quantitative research methods) is useful; but methodologically, the same trends are not mutually exclusive. Strict separation and identification of the methods with specific research areas may not be applicable or even fruitful. (Stroll & Popkin: 357).

Methodological Triangulation in Applied Linguistics

In research methodology, the important issue is methodological triangulation. In The Epistemology and Metaphysics of Language in Lepore and Smith (2008: 1006-1007) Gluer (2008) discusses ' triangulation' in language research and adds:

Triangulation is a technique used in navigation, surveying, and civil engineering, for precise determination of a ship's or aircraft's position, and the direction of roads, tunnels or other structures under construction. … (in specific and human sciences) the triangulation argument employs the premise that in order to have any propositional thought whatsoever, a creature needs to have the concept of objective truth. To have this concept, however, it must stand in a certain relations of interaction not only with objects or events in the world, but also with other creatures sufficiently like itself. … The idea (of triangulation) has undergone considerable development in the process and proven very powerful and prolific.

In research programs, triangulation involves using multiple research techniques and multiple sources of data in order to explore the issues from all possible perspectives. Using the technique of triangulation can aid credibility (to ensure that the picture provided by the research is as full and complete as possible), transferability (i.e., how far qualitative research findings are transferable from one context to another), confirmability (which involves making available full details of the data on which claims or interpretations are based so that other researchers can examine the data and confirm, modify or reject the first researcher's interpretations), and dependability (i.e., similar to consistency and reliability, the extent to which people not involved in the study would make the same observations and draw the same conclusions when following the same research steps) in qualitative research (Nunan:14).

Triangulation is an approach intended to enhance the quality and validity of the qualitative research. It has been recommended to be applied to avoid personal bias on the part of the researcher, either in terms of the influence the researcher has on the behavior of the participants or interms of the bias the researcher exerts into the process of the research. Triangulation may include, too, data triangulation (from other sources) , investigator triangulation (use of observers), and methodological triangulation (using multiple sample types and sources).In triangulation, operational definitions may, also, be given, so that the definitions give clear and precise definitions to theoretical concepts and variables, including how they were measured in the entire process of research (F.6).

Characteristics of Scientific Methodology in Research Issues in Applied Linguistics

The Basic Elements of Scientific Method in Research

Scientific method in appliedlinguistics is the systematic analysis and approach of the rational and experimental principles and processes in linguistics which must guide a scientific inquiry , or which constitute precisely the structure of the special sciences

more particularly. Runes(1992: 196-197) states that " Methodology, which is also called scientific method and more seldom methodeutic, refers not only to the whole of a constituted science, but also to individual problem or group of problems within a science".

The scientific method is a systematic, logical approach used by all scientists in which hypotheses are tested through empirical research. It is reductive (i.e., individual and isolated items are reduced into general statements); it is replicable by other researchers who are interested in the research topic, and generative (i.e., engenders new questions that need to be answered). It is methodical process of observation, prediction, experimentation, explanation and refining of explanation. The refining of explanation typically leads to further observation, prediction, experimentation, explanation, and so on, as the scientist gathers more and more legitimate answers for the questions under consideration. The major goal of the scientist is to understand and explain a specific behavior or relation. For example, for a language researcher it may be the success of language learners, instructed under specific and controlled situation.

Generally speaking, there are several important so called ' scientific methods' in specific and human sciences, among which are : a) rational methods (used by the speculative sciences); b) axiomatic or hypothetico-deductive method (as used by the theoretical and specially the mathematical sciences); c) nomological or inductive method (as used by experimental sciences); d) descriptive method (as used by the natural and social sciences); e) historical method (as used by the sciences dealing with the past); and f) the psychological method(as used by all the sciences dealing with human behavior and development) (Klausner & Kuntz : 338-339).

Practically,the scientific method begins with observation. The researcher observes that certain events, called variables, tend to occur together (a variable is any condition, situation, object, event, or characteristic that may change in quality and or quantity from one group to group or person to person). In other words, these events seem to be related in some way. The next step is to

make prediction on the basis of this observation, and the researcher formulates a hypothesis. A hypothesisis a tentative statement regarding the relationship between the variables. The formulated hypothesis must be testable ; so, the researcher conducts a research study during which empirical evidence (i.e., data) is gathered through scientific observation. It is the analysis of the data at the end of an experiment that allows the researcher to conclude that the hypothesis has either been supported or refuted. In a scientific method, a theory is an organized body of statements or assumptions that generates hypothesis and attempts to explain behaviors within a specific framework. Theories are built on data gathered in the past, which allow scientists to make predictions about future events. Therefore, theories are dynamic and subject to approval, refinement, revision and refusal as new experimental evidence is gathered (Stroll & Popkin :9).

Observation can be scientific only when it reflects the objective laws of reality itself. Scientific observation differs from casual observation in that it must meet certain restricting criteria. The first criterion concerns its being empirical, which means that it must be objective and measurable. The second criterion is a logical extension of the first one. If an observation is objective and measurable, then, it follows that others must be able to observe it as well. In other words, the observation must be public, and not a private one. The third criterion is its being repeatable. If an event is public and observable by others, then it follows that the observation is repeatable. The methodology and the results found need to be made available to the other researchers in order to advance knowledge and science. Thus human knowledge would be cumulative (F.7).

Conclusion

In this paper, philosophical and fundamental questions of research philosophy in applied linguistics have been discussed. In Part 1, we have argued that there are practically endless definitions to the concept of 'philosophy'. But, we have adopted three comprehensive definitions to serve our present purposes. In the first part, we have argued that the mutual relationship of consciousness to being, inter-relationship between ontological, epistemological and methodological levels of inquiry constitute the fundamental questions of philosophy.

In Part 2, the main issues in the research philosophy in applied linguistics have been surveyed. We have tried to provide a descriptive analysis of the prevailing philosophies of positivism and post-positivist thinking in relation to research methodology, and have identified their main specifications. We have argued that while quantitative and qualitative research methods are often considered as two opposing trends in methodology of research, they can be frequently used in conjunction with one another and are not mutually exclusive. Moreover, in this part of the paper, we have stressed the importance of methodological triangulation in research programs in applied linguistics.In Part 3, the characteristics of scientific methodology in research issues, basic elements of the scientific method in research have been discussed. In this part, we have argued that scientific observation should be systematic, empirical, public and repeatable.

Footnotes

1. For further discussion, interested readers may consult Onions (1983: 675).
2. For more discussion on the essential elements and components of research, see:
    a) Farhady, H. (1374 : 17 – 33).
    b) Cook, v. and Wei,L. (2009, Vol. I : 117 – 120).
3. On the concept of 'method' interested readers may consult: McDonough, S. (2002 : 106 – 107).

4. On the beliefs deductively derived and inductively inferred, interested readers may consult:
  a) Klausner,N.W. and Kuntz, O.G. (1961: 125 – 128).
  b) Onions, C.T. (ed.) (1983: 250, 471 et passim).
  c) Vossoughi, H. (2000: 269 – 270).
5. For more discussion, see:
  Runes, D.D. (1992: 231).
6.   For more discussion, interested readers may see ' Triangulation ' in:
  Lepore, E. and Smith, B.C. (2008: 1006 – 1019).
7. For further information on the basic and essential elements of sciewqntific method in applied
  linguistics, consult :
  Farhady, H. (1374: 18 – 37 et passim).

The Author

Mohammad Ali Torabi is associate professor of linguistics at the IAU Ahar Branch. He has written many books and articles in the area of linguistics. He is the director and editorial board member of the Journal of Applied Linguistics, IAU Tabriz. He is the editorial member of The Journal of English Language Teaching and Learning of the State University of Tabriz. His main areas of research are general linguistics, sociolinguistics, psycholinguistics and lexicography.

References

Aronoff, M. & Rees-Miller,J. (2006). *The Handbook of Linguistics.*Oxford: Blackwell.

Caygill, Howard. (1995). *A Kant Dictionary.* Oxford: Blackwell

Cook, V. and Wei, L. (2009). *Contemporary Applied Linguistics.(Vol.I) : Language Teaching and Learning.* London: Continuum International Publishing Group.

Davies, A. &Elder,C. (2007). *The Handbook of Applied Linguistics*.Oxford: Blackwell.

Farhady, H. (1374). *Research Methods in Applied Linguistics.*Tehran :Payame Noor University Publications.

Kaplan, R.B. (ed.).(2002).*The Oxford Handbook of Applied Linguistics.*Oxford: Oxford University Press.

Klausner, N.W. & Kuntz, P.G. (1961). *Philosophy : The Study of Alternative Beliefs.*London: The MacMillan Co.

Lepore, E. & Smith, B.C. (2008). *The Oxford Handbook of Philosophy of Language.*Oxford: Oxford University Press.

Mackey, A. & Gass, S.M. (2005). *Second Language Research: Methodology and Design.* New Jersey: Lawrence Erlbaum Ass. Pub.

McDonough, S. (2002). *Applied Linguistics in Language Education.*London: Arnold.Nunan,D.(2008). *Research Methods in Language Learning.*Cambridge: Camb.Univ. Press.

Onions, C.T. (ed.).(1983). The Oxford Dictionary of English Etymology. Oxford: Oxford University Press.

Proctor,S. (1998). *Linking Philosophy & Method in the Research Process: The Case for Realism.* Nurse Researcher.5,4.

Runes, D.D. (1992). *The Dictionary of Philosophy.* London: Peter Owen Limited.

Vossoughi, H. (2000). *An Encyclopedic Dictionary of Teaching E.F.L.* Tehran: Rahnama Publications.

Spolsky, B. & Hult, F.M. (2008). *The Handbook of Educational Linguistics.* Oxford: Blackwell.

Stroll,A. & Popkin,H. (1961). *Introduction to Philosophy.* New York: Holt, Rinehart & Winston, Inc.

The Compact Edition of The Oxford English Dictionary (Complete Text Reproduced Micrographically). (1984). Oxford : Oxford University Publications.