Determining an Appropriate Research Framework for Language Teaching and Learning in Higher Education

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Abstract

This review of literature on approaches to language education research aims to provide a theoretical background to researching into language teaching and learning at tertiary level. It is purely a desk research with the hope of highlighting the main approaches to language study research to first-time researchers attempting to wade into the murky waters of academic research. Academic research is a complex enterprise; hence the need for appropriate procedures that would yield quality research outcomes. The review is organised in four main parts seeking to address five major questions: 1) How is an appropriate approach to evaluating a language programme determined? 2) What is implied by the terms research methodology" and "methods"? 3) What roles do human perceptions play in determining a research approach? 4) What is the rationale for adopting a particular research approach? Among the different paradigms of research methodology for language programme evaluation, the positivistic/quantitative and the naturalistic/qualitative approaches are generally favoured by applied linguists and language programme evaluators as the most ideal evaluation tools. When it comes to measuring the effect of different methods on the success of a language programme, a positivistic design is considered most appropriate. With most of the data for a naturalistic research design coming from a variety of sources such as students, instructors, administrators, evaluators, and other stakeholders, observation, interviews, journals, questionnaires, and document analysis have been identified as the most common methods for gathering and recording data. A paper that seeks to explore tertiary-level English language teaching and learning for instance would require a combination of both positivistic and naturalistic designs, as neither design is considered sacrosanct. Employing multiple approaches in a single study would therefore require the integration of the strands at some point through triangulation.

Keywords

language education research, research approaches, first-time researcher, quality research outcomes

1. Background: Research Approaches and Design for Language Study

Research methodology for evaluating language programmes has been classified into different paradigms by various scholars. The positivistic/quantitative approach and the naturalistic/qualitative approaches are generally favoured by applied linguists and language programme evaluators as the most ideal language programme evaluation tools (Thanh Van, 2008, p. 1; Lynch, 1996). To measure the effect of different methods on the success of a language programme, a positivistic design is considered most appropriate. With most of the data for a naturalistic research design coming from a variety of sources such as students, instructors, administrators, evaluators, and other stakeholders, Lynch (1996) identifies "observation, interviews, journals, questionnaires, and document analysis" as the most common methods for gathering and recording data. A research that seeks to explore English language teaching and learning in higher education for instance would require a combination of both positivistic and naturalistic designs. With the main objective of research being "finding something out" (Newby, 2010), Education research, to which category language teaching research belongs, should explore issues in education in order to identify and specify a problem that can or should be the subject of further research. Finding something out and doing nothing about it is not a worthwhile venture. It is important that after finding out what went well or wrong, suggestions are also made not only to enhance what went well, but also to correct what went wrong. Information collected in such research projects should therefore be made available for use in the case study institution for making judgements that can inform policy direction. By finding out how an English for Academic Purposes (EAP) programme is run in selected higher educational institutions for instance, findings and recommendations can be shared for the achievement of quality in the discipline. Research also makes it possible to assess current performance to determine whether something can be done better than the way it is already being done. To attain these broad objectives, education research adopts these three common approaches: quantitative, qualitative and mixed methods. Each of these methods and other approaches identified as recommendable for language study research would be considered in turn, but before that, there is need to distinguish between the terms "research methodology" and "research methods".

2. Research Methodology and Research Methods

The literature on the practice of conducting research identifies three categories of authors:

a) Those who use the terms research methods and research methodology very precisely with different meanings;

b) Those who see little distinction between the two terms and use predominantly one or the other to mean what the first group refers to as research methods; and

c) Those who are "flexible" in their use of the terms and use them interchangeably (Newby, 2010, p. 49).

Newby argues that the two are quite distinct, and therefore should be used in different ways. He defines

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the two ideas as:

a) Research methodology is concerned with the assembly of research tools and the application of appropriate research rules;

b) Research methods are the research tools themselves, e.g., questionnaires, observation, statistical analysis.

In other words, methods are a subset of methodology, as the latter "is how the toolkit of research methods is brought together to crack an individual and specific research problem" (Ibid). The choice of a particular method is usually determined by the type of data the researcher anticipates as needful in their attempt to find answers to the research question. For instance the data for research that is intended to explore the systems for teaching and learning of EAP in tertiary institutions should include both qualitative and quantitative ones. Therefore, a qualitative, comparative case study should be selected as the research design for a greater part of the study, using expert-driven; maximum variation; criterion-based techniques as sampling methods (Childress, 2010). As an approach that is not limited by variables or options, the qualitative method would facilitate the investigation and understanding of situations and events in varied tertiary educational environments. For purposes of categorising the subject institutions into groups for analysis, a quantitative approach should be considered too. This approach would help distinguish between, e.g., public and private; local and foreign universities; the kind of courses that are concentrated on in the institutions and their language teaching approaches. To obtain information, course documentations could be looked at. Typical academic texts in students' fields, students' work, and test and examination results could also be studied as part of the examination of the EAP programmes. Subject lecturers and students can also be interviewed. In order to explore how effective the language course is in the various institutions, students' entry and exit test scores should also be examined.

In order to enable students understand, express themselves and communicate effectively in English they need reading, listening, writing and speaking skills. Among the various uses, writing seems to be the most widely used and also the most problematic, as students use this medium right from completing admission forms through to writing their dissertations. In each of these they need to be conversant with the appropriate writing style. Reading and listening also constitute quite a significant exercise since students need to read notices, notes and textbooks, examination questions and instructions; listen to lecturers and peers during teaching and seminars, in order to make meaning out of what they have read or heard. Students need speaking skills for their oral presentations. In seeking to know more and or make contributions in class and at seminars, they need know how to frame their questions in order not to sound impolite. Knowing the appropriate hedging and buffer tools would enable them to present bad news without causing unnecessary shock to their listeners or readers. It is also important for students to be able to compare and strike a distinction between the worldview of the culture of speakers of their mother tongues (L1) and that of speakers of the English language. In Ghana, English is the second language (L2) of most higher education students. The ability to recognise what is acceptable in one

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socio-linguistic environment but not in the other is dependent on the student's intercultural awareness, understanding and competence. Knowledge of the language is determined by the ability of the student to study and, at least, understand linguistic structures in the context of specific language uses, in this case, academic purposes. Ultimately, they should have sufficient knowledge of the structure (syntax) of English to enable them observe the full range of appropriate norms of written academic English and some general awareness of English linguistic systems. In an English-speaking country, students' ability to distinguish between the cultures of their immediate past places of learning (secondary) and the current (higher education) is very essential. A good EAP programme must therefore take into account these two different academic cultures and seek to inculcate in students the appropriate tertiary culture.

3. The Ontology-Epistemology Divide

3.1 Ontology—The Nature of Being

Generally, researchers agree that individual perceptions of human nature can impact the approach they adopt in their investigations. Cohen et al. (2003) point out that there is a link between how one views socially constructed realities and choices one might make when it comes to methodological considerations. In conducting the research, you may choose differing ontological perspectives, i.e., ways of viewing social reality. To ensure awareness of the philosophical premises on which to base arguments justifying your research processes and findings, two considerations should be made:

1) Adopting your belief that the world of social interactions exists independently of what you perceive it to be; and

2) Viewing social reality as being co-constructed by individuals interacting actively and making meaning of the world, and thereby approaching your search for truth in people's lived experiences through rigorous interpretation (Graue & Walsh, 1998).

In order to ensure a rigorous interpretation of the search for truth in the lived experiences of the subjects of your study, their historical, cultural and philosophical backgrounds should be addressed.

The ontology for English language teaching for instance, emanates from the idea that there are universals in reality which are expressed in the general term English for Specific Purposes (ESP) and English for Academic Purposes (EAP) respectively. EAP is a branch of ESP. Ontology then is the study of classes, and the relations between them, for example, what Bodenreider et al. term as the *is_a* relation which obtains between two classes when it is a matter of scientific law that all instances of the first class are instances of the second, or the *part_of* relation which obtains between two classes when it is a matter of scientific law that instances of the first exist always as parts of instances in the second (Bodenreider et al., 2004, p. 3).

3.2 Epistemology—How Knowledge is Shared

Epistemology studies how cognitive subjects come to know the truth about given phenomena in reality (Bodenreider et al., 2004). In the sense that is relevant to a language study research, epistemology can be the study of teaching and learning of EAP in higher education. Thus, it will encompass how a given

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higher educational institution ensures that the teaching and learning of EAP is effective. The concept of "effectiveness" is relative and requires further explanation.

3.3 Emic and Etic Dimensions of Effectiveness

Measuring the effectiveness of a language programme has both emic and etic dimensions because, as Pike (1954) observes, in studying the cultural system of a given society, the analyst may take the point of view of either the insider or the outsider. Pike also defines the etic approach as one that examines the extrinsic concepts and categories meaningful to scientific observers. It thus implies objective or outsider account. Only scientists can judge the validity of an etic account, just as only linguists can judge the accuracy of a phonetic transcription. The emic focuses on cultural distinctions meaningful to members of a given society. For example, how the cultures of selected case study institutions in the study enhance EAP teaching and learning. Just like in language, only the native speakers can judge the accuracy of a phonemic identification, only the native members of a culture, in this case, students and lecturers of the study sites, can judge the validity of an emic description. To achieve this in your study, a positivistic research tool should be adopted to ensure that the necessary control conditions are in place. This should be done by dividing students into control and experiment groups to facilitate your experiments and surveys at the case study sites and limiting your interference in the setting and with the subjects so as to achieve objectivity, replicability and generalisability, while minimising any possible biases in interpreting the results. Since naturalistic ontology views reality as a social construct that is subject to change through the process of investigation, naturalist evaluation tools should not be left out. What actually happens in the EAP programmes at the case study institutions should be examined. The numerical data thus collected can be analysed using SPSS. As a study involving qualitative methods as well, a naturalistic approach can be adopted. The major research methods employed in this approach are in-depth interviews, observation, questionnaires and document reviews. To gain emic understanding of the programmes, evaluators normally observe the actions and participants in natural occurring settings (Thanh Van, 2008*)*. In view of this, some time should be spent on each campus to observe how their EAP programmes are taught. Thanh Van (2008) attests that in order to derive a thorough understanding of programmes, investigators turn themselves into insiders in the programme by exploiting the emic approach, thus enabling them to confirm their interpretation. In the sections that follow, the basis for adopting each of the major research approaches identified is discussed.

4. Rationales for Various Approaches in Language Study Research

4.1 Rationale for a Quantitative Research Approach

The quantitative research approach falls within the positivist tradition and is said to be objective, experimental, and values the empirical observation of cause and effect (Newby, 2010, p. 116). It adopts a numeric or statistical approach to research design, using data thus obtained to objectively measure reality (Williams, 2007). Unlike the qualitative approach which stems from a humanistic tradition and

draws on insight and interpretation, allowing the researcher to draw on his or her subjective responses to evidence, quantitative research draws conclusions based on numerical evidence. It draws logical conclusions to relationships from evidence. Leedy and Omrod describe quantitative research as one that seeks explanations and predictions that will generate to other persons and places with the intent of establishing, confirming, or validating relationships and to develop generalisations that contribute to theory (Leedy & Omrod, 2001, p. 102). They categorise quantitative research under three broad areas: descriptive, experimental and causal comparative. The first, descriptive research approach, is a basic method that examines a situation as it exists in its current state. This approach also involves "identification of attributes of a particular phenomenon based on an observational basis" (Williams, 2007, p. 66). Therefore, the quantitative research method should be employed when it comes categorising the subject institutions for analysis.

4.2 Rationale for a Qualitative Research Approach

Typically, researchers select the qualitative approach for research questions that require textual data. It is said to be a "holistic approach that involves discovery" (Williams, 2007, p. 67). Newby also describes it as an approach that seeks to understand "how people choose to live their lives, the meanings they give to their experiences and their feelings about their condition" (Newby, 2010, p. 115). In attempt to assess how students and teachers feel about the EAP course in the selected institutions, the qualitative approach lends itself as an appropriate method for conducting the research. Also if the intention is to collect data through focus groups, interviews and document analysis, this approach is deemed relevant because "it involves purposeful use for describing, explaining, and interpreting collected data" (Williams, 2007, p. 67). Creswell considers the qualitative approach as an "effective model" occurring in a natural setting that makes it possible for the researcher to develop a level of detail from being highly involved in the actual experience (Creswell, 2003). Emerging from the postpositivist paradigm and having its premises built on inductive reasoning, qualitative research covers five areas: case study, ethnography study, phenomenological study, grounded theory study, and content analysis. If the study to be conducted is a case study, it could fall within the qualitative framework. As a naturalistic enquiry, it would enable the researcher to obtain the relevant data on English language teaching at tertiary level in as natural a setting as possible. Also, if the research will involve "a detailed and systematic examination of the contents of a particular body of materials for the purpose of identifying patterns, themes or biases" (Leedy & Ormrod, 2001, p. 155), the approach should encompass content analysis too. The two methods are discussed in turn.

4.3 Case Study Approach

Case study can be defined in different ways. Yin defines it as "an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used" (Yin, 1984, p. 23).The modern higher education environment is made up of the public and private sectors. Privatisation of higher education is a contemporary phenomenon, and so is the teaching and learning of

EAP, the unit of analysis. Assuming the cases intended for study are made up of two public tertiary institutions and two private ones, the case study approach is deemed appropriate as it would enable the "researcher to explore in-depth a program, an event, an activity, a process, or one or more individuals" (Creswell, 2003, p. 15). Bell (1999) further confirms the relevance of a case study in such research projects because "it allows the researcher to concentrate on a specific instance of situation and to identify, or attempt to identify, the various interactive processes at work" (Bell, 1999, p. 11). Although some critics argue that generalisation is not always possible in the case study approach, Descombe (1998) asserts that "the extent to which findings from the case study can be generalized to other examples depends on how far the case study example is similar to others of its type" (Descombe, 1998, pp. 36-37). Bassey (1981) expresses a divergent view by stating that, "the relatability of the case study is more important than its generalisability" because if case studies are carried out systematically and critically, if they are aimed at the improvement of education, if they are relatable, and if by publication of the findings they extend the boundaries of existing knowledge, then they are valid forms of educational research (Bassey, 1981, pp. 85-86).

Corroborating this standpoint, Newby recommends that the "case study should always seek to identify the learning that can be transferred", and that the value of a case study is measurable by what is transferrable "to other situations such as other organisations that face or might face similar problems to those in the case study or to those performing a similar role in an organisation" (Newby, 2010, p. 54). Thus, if the research aims at exploring the teaching and learning of EAP in selected tertiary education institutions, the researcher should present not just a picture of the general situation in the higher education sector, but also how the case study examples fit in relation to the overall picture of higher education. In line with Creswell's suggestion on the structure of a case study, the research should be designed along the following lines: the problem, the context, the issues, and the lessons learned (Creswell, 1998). The data for the study should be extensive and drawn from multiple sources including direct or participant observation, interviews, and archival documents. Time should be spent on-site to interact with students and lecturers of the case study institutions. In order to connect the study with theories, the study results should include lessons learned or patterns found. In a comparative case study involving a number of tertiary education institutions, for instance, the characteristics of the cases should be "deliberately and knowingly varied in order to assess the significance of the difference" (Newby, 2010, p. 54). The differentiation should be done along vertical and horizontal lines. In terms of vertical differentiation, status differences and issues of hierarchy and reputation should be considered. Horizontal differentiation should take into account the functional differences of the selected tertiary institutions. Stake (1995) considers a case as "a bounded system" that has working parts. In defining "case" in the research, Stake's approach could be adopted. The participating institutions (i.e., the selected tertiary institutions) would be the bounded systems of interest with faculty and students of these institutions being the working parts that are of particular interest. Stern acknowledges the introduction of empirical procedures into the study of language education (Stern, 1983, p. 163) as one

of the critical contributions of research to language teaching theory. The study of case in language learning and education therefore plays a very important role in education research.

4.3.1 Selecting the Case Study Sites

The case study methodology has been criticised for being incapable of providing a generalizing conclusion because of its dependence on a single case. Yin (1994) argues that using a relative sample size of 2, 10, or 100 cases, does not necessarily transform a multiple case into a macroscopic study. Establishing the parameters should therefore be the goal of the study, which should then be applied to all research. By so doing, even a single case could be considered acceptable, provided it met the established objective (Tellis, 1997). If the study involves more than a single case, e.g., three universities and one polytechnic, a multiple-case study approach is deemed appropriate as it will allow the researcher "to analyse within each setting and across settings" (Baxter, 2008, p. 550).

4.3.2 Setting the Limits

In order to avoid the tendency of answering questions that are too broad, a common pitfall associated with case studies, there is the need "to bind the case" (Ibid), that is, to consider what one's case will not be. Yin (2003), Stake (1995), and their contemporaries have suggested the placing of boundaries on cases as a means of preventing this explosion from happening. These case-binding mechanisms include:

1) Time and place (Creswell, 2003);

2) Time and activity (Stake, 1995); and

3) Definition and context (Miles & Huberman, 1994).

Baxter considers binding the case as an important way of ensuring that the study remains in scope (Baxter, 2008, p. 547). For instance, if the researcher finally decides to chose four case study sites, that could mean also taking into account the total number of universities in a country, their sizes and main sources of funding: 1) How many are private and how many are public? 2) What are their student populations and staff strengths? Which of them are faith-based and which ones are not? Considering factors such as time and financial constraints as well as other demands come with conducting a research involving all these institutions, it would be wise to limit the HEIs to a reasonable number like four for example. Also, each of the case institutions might have been established at a different point in time. Though founded within the same country, they may be strategically located in different regions; operate within different institutional contexts and may be engaged in different forms of academic activity. All these peculiar contextual features would be worth considering when conducting a case study as they are significant in determining the various institutional cultures.

Besides setting out the limits of the research, it is also important to determine the type of case study to be carried out. The choice of a given study design is usually guided by what the researcher seeks to achieve through the study. Using different terms to describe case studies, Yin (2003) categorises case studies as explanatory, exploratory, or descriptive and also differentiates between single, holistic, and multiple-case studies. The researcher could therefore consider the explanatory, exploratory, descriptive,

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and multiple case types as each of these has (an) element(s) exemplified in Yin's descriptions. According to Yin (2003) an explanatory case study is used when one is seeking to explain the presumed causal links in real-life interventions that are too complex for the survey or experimental strategies. In evaluating language, the explanations would link programme effects. An exploratory case study on the other hand is used to explore those situations in which the intervention being evaluated has no clear, single set of outcomes (Yin, 2003). The descriptive type of case study is used to describe an intervention or phenomenon and the real-life context in which it occurred (Yin, 2003). A multiple case study enables the researcher to explore differences within and between cases. The goal is to replicate findings across cases. Because comparisons will be drawn, it is imperative that the cases are chosen carefully so that the researcher can predict contrasting results based on a theory (Yin, 2003, p. 551). If your research suits Yin's descriptions, i.e., the explanatory, exploratory, descriptive case studies and multiple-case study types, then the research should foremost seek to explore the a particular situation, for example the teaching and learning of EAP in HEIs. Such a study can be described as descriptive in the sense that it aims at describing the specific interventions in teaching and learning of EAP in the "real-life contexts" of the public and private higher education sectors.

4.3.3 Designing the Case Study Research

In order to come out with an effective case study, Yin (1989) identifies the following five elements as crucial:

1) Presenting a clear and adequate specification of the theoretical issues and, from this, the questions that frame the study;

2) Clearly defining the units of analysis, including possible sub-units if these are warranted;

3) Deciding on the appropriate number of cases to explore within the study;

4) Clearly specifying the selection criteria for choosing the case studies;

5) Choosing an appropriate and effective data collection and analysis strategy;

6) Developing appropriate tests to ensure the validity and reliability of the approach taken in conducting the case study (Yin, 1989).

These steps are considered indispensable if the case study researcher is to succeed in following a logical design to link data to objectives, conclusions to data and, also link objectives to conclusions.

4.4 Content Analysis Approach

Content analysis is said to be the reviewing "of forms of human communication including books, newspapers, and films as well as other forms in order to identify patterns, themes or biases" (Williams, 2007, p. 69). The method is designed in such a way that it enables the researcher to identify specific characteristics from the content in human communication. In the process, verbal, visual, behavioural patterns, themes, or biases are explored by the researcher. In order to achieve the highest objective analysis possible, the procedural process of the content analysis study is designed to involve identifying the body of material to be studied and defining the characteristics or qualities to be explored (Leedy & Ormrod, 2001). Its two-step data collection process includes:

1) Analyzing the materials and putting them in a frequency table as each characteristic or quality is mentioned, and

2) Conducting a statistical analysis and reporting the results in a quantitative format.

English for Academic Purposes, as a branch of English for Specific Purposes (ESP), deals with the language and related skills that students need to acquire in order to undertake study in higher education through the medium of English. As such, the teaching content is matched to the learners' requirements (Robinson, 1991). To best appreciate how far this objective is being achieved in higher educational circles, the content analysis approach is deemed appropriate for adoption.

4.5 A Multi-Method Approach

The preceding discussions on the methods and design of a research work indicate that there would be the need to employ a multi-method approach if the research topic itself requires that more than one method of research is adopted. It is obvious that methods of collecting or analysing data from the quantitative and qualitative research approaches would be incorporated in that single research study (Creswell, 2003). This implies that the researcher would be collecting or analyzing not only numerical data, which is characteristic of quantitative research, but also narrative data, which is customary of qualitative research as an attempt is made to find answers to the research questions on, e.g., the teaching and learning of EAP in higher education. In the data collection process, a survey containing closed-ended questions could be distributed to the case study institutions to collect the numerical, or quantitative data, while interviews using open-ended questions can be conducted to collect narrative, or qualitative data. As a single study that employs multiple approaches, it would be necessary to integrate the strands at some point. This is needful because both positivistic and naturalistic approaches are deemed to have some shortcomings. Lynch (1988) therefore advises the use of both qualitative and quantitative approaches complementarily. To achieve this, triangulation can be used. Case study itself has been described as "a triangulated research strategy". Stake (1995) describes the protocols that are used to ensure accuracy and alternative explanations as triangulation. The need for triangulation arises from the ethical need to confirm the validity of the processes. In case studies, this could be done by using multiple sources of data (Yin, 1994). Triangulation includes: direct observation by the researcher within the environments of the case and probing by asking case participants for explanations and interpretations of operational data and analyses of written documents and natural sites occurring in case environments.

5. Ethical and Protocol Issues

It is common practice among tertiary institutions across the world to institute codes of practice and protocols requiring researchers to ensure the full awareness of participants of the purpose of the research, and also understand their rights. Most institutions of higher learning have formalized research procedures and guidelines for ethics and protocols. These are usually contained in a handbook in hard and/or soft copy available at the institutions' websites. The subject institutions to be involved in case

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studies would no doubt have similar codes of ethics and protocols. Relevant clauses relating to these, as well as those of the researcher's own university should be taken into account when conducting a research. To ensure that the research meets the standards of quality empirical research, the study should be guided by the following questions: how should I be towards those people that I am studying? What ethical considerations ought to be taken into account? How will I mitigate the Hawthorne effect? In order to win the trust of participants, the principle of 'informed consent' should be aimed at to ensure careful preparation that involves explanation and consultation before the commencement of any data collection (Cohen & Manion, 1994, pp. 349-760). Participants should be informed of their rights and given assurance of protection of their privacy. Confidentiality of the data and identities of persons interviewed and respondents to the questionnaire should be absolutely maintained in order that the research does not place participants at risk of harm. Research has shown that study subjects tend to change their attitudes when they realise that they are being observed. As a means of checking this phenomenon known as "the Hawthorne effect", the necessary methodological tools should be put in place.

Participants from the case study institutions should be fully informed about the project through formal letters spelling out the objectives of the study—an academic research aimed at exploring strategies in teaching and learning of EAP and making recommendations for replication of good practice in similar academic environments in Ghana. If the researcher is an employee of one of the institutions involved in the study, there could be the tendency of taking certain issues for granted, because he/she is an "insider". For instance, assuming that he/she is already privy to some relevant pieces of information or know some personalities and therefore not seeing the need to observe the appropriate protocol is possible. To ensure quality research, the appropriate permission should be sought from authorities and participants in order to fulfill ethical demands. The likelihood of personal biases and values must also be taken note of and controlled as much as possible.

6. Conclusion

Research in higher education is a murky affair even for the very experienced. For beginners, it can be more confusing when it comes to determining which approach to adopt in carrying out a research leading to outcomes that the academic audience would value. The introduction of empirical procedures into the study of language education has been acknowledged as one of the critical contributions of research to language teaching theory. The study of case in language learning and education therefore plays a very important role in education research. Thus, it is imperative that the not-too-experienced language study researcher acquires sufficient understanding of the relevant techniques so as to develop a research strategy or choose a research procedure that is robust enough. Knowledge of alternative approaches to different research situations is very crucial for ensuring reliability and validity in multi-case study research. The mixing of data types to be obtained from qualitative and quantitative approaches, such as surveys and interviews would help validate the researcher's claims. Good though

these recommendations may appear, it should be noted that they are not watertight prescriptions. Instead, they should be considered as guidelines to the numerous tools identified by experts in academic research which beginners in the field could avail themselves of.

References

Bassey, M. (1981). Pedagogic research: On the relative merits of the search for generalisation and study of single events. *Oxford Review of Education*, *7*(1), 73-93.

Bell, J. (1999). *Doing your research project: A guide for first-time researchers in education and social science* (3rd ed.). Berkshire: Open University Press.

Bodenreider, O., Smith, B., & Burgun, A. (2004). The ontology-epistemology divide: A case study in medical terminology. *International conference on formal ontology and information systems*.

Bracken, S. (2010). Discussing the importance of ontology and epistemology awareness in practitioner research. *Worcester Journal of Learning and Teaching*, *4*.

Cohen, L. et al. (2007). *Research methods in education* (6th ed.). Chapter 1: *The nature of enquiry—Setting the field*. London: Routledge.

Cohen, L., & Manion, I. (1994). *Research methods in education* (4th ed.). London: Routledge.

Creswell, J. (2003). *Research design: Qualitative, quantitative and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: SAGE Publications.

Creswell, J. W. (1998). *Qualitative enquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: SAGE Publications.

Crosthwaite, J., MacLeod, N., & Malcolm B. (1997). Case studies: Theory and practice in natural resource management. In *Proceedings of the Australian Association for Social Research Conference*. Charles Sturt University, Wagga.

Leedy, P., & Ormrod, J. (2001). *Practical research: Planning and design* (7th ed.). Thousand Oaks: SAGE Publications.

Lynch, B. (1988). Toward a context-adaptive model for the evaluation of language teaching programmes. *Dissertation Abstracts International*, *48*.

Lynch, B. K. (1996). *Language programme evaluation: Theory and practice*. Cambridge: Cambridge University Press.

Newby, P. (2010). *Research methods for Education*. Essex: Pearson Education Limited.

Pike, K. (1954). *Language in relation to a unified theory of the structure of human behaviour*. Glendale: Summer Institute of Linguistics.

Robinson, P. (1991). *ESP today: A practitioner's guide*. London: Prentice Hall.

Spring, J. (2009). *Globalization of education: An introduction*. New York: Routledge.

Stake, R. E. (1995). *The art of case study research: Perspective in practice*. London: Sage.

Tellis, W. (1997). Introduction to case study. *The Qualitative Report*, *3*(2). Retrieved from http://www.nova.edu/ssss/ QR/QR3-2/tellis1.html

Thanh Van, T. T. (2008). *Language programme evaluation: Qualitative or quantitative approach*? Hanoi: Ngoai Ngu.

Williams, C. (2007). Research methods. *Journal of Business and Economics*, *5*(2), 65-72.

Yin, R. (1994). *Case study research: Design and methods*. Beverly Hills: Sage Publications.