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Eğitimde Araştırma Yöntemleri: İngilizce Öğretmenliği Hizmet Öncesi Eğitim Üzerine Bir Çalışma

Simla İçmez[a]

Özet

Bu çalışma İngilizce öğretmenliği öğrencilerinin araştırma yöntemleri dersleri için seçtikleri araştırma yöntemlerini neden seçtiklerini araştırmaktadır. Temelde bu çalışma, öğretmen adaylarının , mevcut pek çok araştırma yöntemi arasından, ağırlıklı olarak deney yöntemini seçmelerinin nedenlerini araştırmaktadır. Bu amaçla, araştırma İngilizce öğretmenliği son sınıf araştırma yöntemleri öğrencileri ile yapılmıştır. Bulgular bu öğrencilerin deneysel yöntemi ve pozitif bilim yaklaşımını, sınıf ortamı ve araştırmaya katılan öğrenci ve öğretmenlerin göz ardı edilme riski taşıyacak kadar, nesnel ve geçerli bulduklarını göstermektedir. Bulgular ayrıca, niceliksel araştırma yöntemlerinin hem öğrencilere hem de dersi veren öğretim görevlilerine daha güvenli geldiğini ortaya çıkarmaktadır. Bu nedenle, bu araştırma, meslek yaşamlarında öğretmen ve araştırmacı olarak başarılı olabilmeleri için, eğitim fakültelerinde ve öğretmen yetiştiren programlarda, hem niceliksel hem de niteliksel araştırma yöntemlerinin eğitim alanında yapılan ve yapılacak olan araştırmalar için vazgeçilmez olduğunu araştırma yöntemleri öğrencilerine aktarmanın gerekli olduğunu öne sürmektedir.

Anahtar Sözcükler: Araştırma yöntemleri, eğitim bilimlerinde araştırma, araştırma paradigmaları

Research Methods in Education: An Exploratory Study on ELT Pre-service Teacher Training

Abstract

This study explores the reasons behind the teacher trainees' choices of research designs for their research projects. More specifically, this study aims at identifying the underlying reasons for the English Language Teaching (ELT) teacher trainees' tendency to choose experimental design for their research projects from among a diversity of available research designs. To this end, this study was conducted with ELT final year research methods students. The findings point out that L2 teacher trainees find positivistic paradigm, experimental design in particular, more reliable and objective to

[a] Öğr. Gör. Dr. Çukurova Üniversitesi, Eğitim Fakültesi, Adana.

an extent that the risk of disregarding the classroom context and participants in the research process arises. The findings also point out that quantitative inquiry provides a sense of safety to both the students and the lecturers of the research course. Thus, this research suggests that it is imperative for the teacher training programmes to find ways to incorporate both qualitative and quantitative inquiry, raising student awareness to the value of both methods in educational research to help students become well-prepared teachers-researchers in their professional lives.

Key words: Research methods, educational research, research paradigms

INTRODUCTION

The logical self-reflection that accompanied the development of the human sciences in the nineteenth century is wholly governed by the model of the natural sciences. (Gadamer, 2004: 3)

Research methodology in social sciences is influenced to a great extent by the ontological and epistemological understandings build on structuralist and post-structuralist approaches.

Initially, people were considered as relatively predictable beings that would act within the impositions or regulations of the super-imposing structure: hence the positivist methodology suggested by natural sciences(Foucault 1969).

However, as structuralism and the role of a super-imposing structure on developing an understanding of human kind was challenged by a number of factors, the position of positivism in social sciences was equally challenged. Today, qualitative research methods are used in a great number of studies with the hope of shedding a deeper light to the complexity of human kind.

However, such dichotomy has its toll, especially on educational research, where any teacher will agree for a need to provide a detailed understanding of human kind that accounts for individual differences but that also offers a degree of generalisability or causality, making use of both qualitative and quantitative inquiry.

This paper looks at the undergraduate ELT students' preferences of research design in their proposals for a research course. Based on the initial findings, which the students' research proposals reveal, the research question this study seeks answer is "what is the reason behind the ELT research methods students' substantial preference for experimental design?" Having sought the

answers for this question, this paper discusses ways of incorporating both qualitative and quantitative inquiry into undergraduate research courses.

Research courses and L2 teacher training

The use of qualitative and quantitative research methods has been in debate for a while. However, one aspect that has failed to get enough attention is the impact of these approaches in educational research, and research in applied linguistics in particular. It is essential to study the research paradigms and research designs in applied linguistics since research will be an essential and indispensable tool for the language teachers throughout their professional lives, whether classroom based or large-scale and since ELT programmes currently incorporate research methods in their undergraduate programmes.

It is important to help teacher trainees be aware of the ontological and epistemological assumptions behind available research designs and instruments to help them use the tools that best suits their needs and their learners' needs in the language classroom. However, the research proposals of the participants in this study point out that there is a need to emphasise the place and role of qualitative research methods in undergraduate research course to enable the teacher trainees utilize these tools in their prospective professional lives.

Qualitative and quantitative inquiry

The studies on research methods for social sciences are based mostly upon sociological and anthropological studies, leaving applied linguistics as a marginalized field. Although there are second language researchers who have been studying and suggesting possible research designs (see for example Nunan, 1992; Chaudron, 1988; Wallace 1998; Allwright and Bailey, 1991), these studies do not provide the role and position of applied linguistics within the broader picture of social sciences' research methods. Hence, there is a need for studies in L2 education on the use of research methods in this field. It is essential to provide an understanding of where the current research methods draw from ontologically and epistemologically since this understanding is essential for using the most appropriate method for the research questions at hand.

Modernity Problematized

Different approaches to reality have direct implications on research paradigms. Modernity claims a progressive development and a universal reasoning (Peters and Lankshear, 1996), while post-modernity refuses this claim suggesting fragmentation, contextuality, and so on (Peters and Lankshear, 1996; Foucault, 1969).

It is no coincidence that the issues marking the rise of post-modernity and post-structuralism, that is, post-war, post-colonisation, globalisation, and so on (Peters and Lankshear, 1996; Torfing, 1999), also mark the rise of qualitative paradigms (Denzin and Lincoln, 2003).

Post-structuralism rejects the claims of modernity and structuralism that the progress and human endeavour will be shaped, defined and categorised by an imposing structure; suggesting instead the social situatedness of reality (Foucault, 1969; Torfing, 1999). Rejection of an imposing structure leaves room for the possibility of multiple realities, which has implications on the ontological and epistemological level, which, in turn, shapes the selection of research paradigms.

Positivism Problematized

The reflection of modernity in research tradition manifests itself in positivitist approach, where there is an external reality independent of human cognition and the only way to understand it is to "prevent human contamination" in the process (Guba and Lincoln, 2005: 203). Positivism suggests rigorous use of tests in research to capture the external reality within the proposed dichotomy of subjective and objective reality. Positivism is essentially interested in finding out the causal relationships through quantifying phenomena, which serves to minimize the influence of human cognition in the process. (Denzin and Lincoln, 2003). Positivist approach tests hypothesis as a consequence of an intervention to find out about the causal relationships, which will tell the researcher about the external reality under inspection. It is essentially "outcome oriented" (Nunan 1992: 3). This approach was and has been exhaustively used in educational research:

In L2 research, as in other areas of educational or social science research, it is predominantly assumed that explanation must ultimately come from proof or cause-effect relationships, and that the only way to obtain such proof … is through the administration of statistical tests to suitably circumscribed samples following controlled treatment.(Van Lier, 1988: 11)

However, the very core of positivism, causal relationships and generalisability through quantified phenomena, also gave rise to criticism in social research as it failed to provide a detailed understanding of the human condition and research context. With the possibility of multiple realities emerging, the blurred dichotomy of objective and subjective, and the local, as opposed to global, gaining ground, new paradigms emerged (for example Guba and Lincoln, 2005).

In educational research, researchers have long recognised the difficulty of isolating all possible variables for a highly controlled intervention. While researching classrooms, it is essential to consider the educational and individual experiences of the learners and the teacher, their needs, goals, interaction with each other, class dynamics, as well as all the possible changes in the social reality, which is expected to 'contaminate' the controlled environment of the research (Allwright and Bailey, 1991). Trying to isolate all these in L2 research will be not only impossible but also undesirable as it will limit our understanding of the teaching-learning experience.

Another issue emerging from this approach is the role of people as conscious beings making meaning of the world and not as passive beings to be manipulated by the research (Cohen et. al. 2000). In other words, "People actively construct their social world. They are not the 'cultural dopes' or passive dolls of positivism" (Becker 1970 and Garfinkel 1967 in Cohen et. al. 2000:21-22).

Generalisability claim of positivism was also subject to criticism in educational and social research since generalisability dismisses the role of context, "Events and individuals are unique and largely non-generalisable" (Cohen et. al., 2000: 22). Dismissing the richness of the research context and ignoring the depth and uniqueness of educational settings for the sake of

generalisability is a major concern of the paradigms within qualitative tradition, which will be discussed in detail below (Allwright and Bailey, 1991).

Quantifying phenomena also drew criticism since it bears the risk of overlooking and/or simplifying certain aspects of the phenomena under investigation. Such criticisms led to emergence of further paradigms, postpositivism, constructivism, critical theory, and participatory paradigm (Guba and Lincoln 2005).

The above concerns, with regard to positivism, has long been voiced by social scientists and educational researchers, yet, they fail to be considered comprehensively in the teacher trainees' research projects, as was the case in this study. It is essential that the teacher trainees be made aware of the shortcomings and weaknesses of this approach as well as strengths, to help them be equipped with the essential tools for their future research in language classrooms.

Alternative Approaches

As the positivistic paradigm failed to provide for the emerging needs and interests in social sciences, new paradigms were developed to cater for these needs. These paradigms are very often referred to under the umbrella of qualitative research. The dichotomy between qualitative and quantitative research is summarised in the table below by Merriam:

Characteristics of Qualitative and Quantitative Research

Point of Comparison	*Quantitative Research*	*Qualitative Research*
Focus of Research	Quantity (how much, how many)	Quality (nature, essence)
Philosophical roots	Positivism, logical empiricism	Phenomenology, symbolic interactionism
Associated phrases	Experimental, empirical, statistical	Fieldwork, ethnographic, naturalistic, grounded, constructivist
Goal of investigation	Prediction, control, description, confirmation, hypothesis testing	Understanding, description, discovery, meaning, hypothesis generating
Design characteristics	Predetermined, structured	Flexible, evolving, emergent

Tablonun Devamı

Sample	Large, random, representative	Small, non-random, purposeful, theoretical
Data collection	Inanimate measurements (scales, tests, surveys, questionnaires, computers)	Researcher as primary instrument, interviews, observations, documents
Mode analysis	Deductive (by statistical methods)	Inductive (by researcher)
Findings	Precise, numerical	Comprehensive, holistic, expansive, richly descriptive

(Merriam, 1998: 9)

Although these comparatively new paradigms commonly reject positivism's ontological and epistemological claims, they differ from each other in many fundamental aspects. Post-positivism is an exception to these relatively new paradigms. It shares the fundamental assumptions of positivism but argues that the external reality cannot be known about only approximated until the approximation is falsified by another theory, (Guba and Lincoln 2005).

Constructivism, on the other hand, argues for multiple, "constructed and co-constructed realities", which can be learned about only in a subjective fashion; while critical theory suggests multiple "realities shaped by social, political, cultural, economic, ethnic and gender values, crystallized over time" (Guba and Lincoln, 2005: 195). Guba and Lincoln recently added "participatory" paradigm, which suggests both objective and subjective nature of the world can be known about through "critical subjectivity" (Guba and Lincoln, 2005: 195).

A research course incorporating all these paradigms will not only inform the teacher trainees about the most productive design and tools for their research, which will fit in with the underlying assumptions of their research questions, but also will raise students' awareness on issues like ethics, voice of the researcher, textual representation, sampling, data collection, and the role of participants (Guba and Lincoln, 2005; Lincoln and Guba, 2003). Below, is a more detailed account of positivist, constructivist and critical paradigms in relation to the points mentioned above. Participatory paradigm will not be discussed in this paper since it is a relatively recent categorisation and there is still need for further study on the use of this paradigm.

Positivist, constructivist and critical paradigms

At this point it is worth reviewing these paradigms briefly to discuss them in relation to teacher training programmes. As reviewed above, positivist paradigm is concerned with explaining the causality quantitatively through carefully manipulating the variables in a high control intervention. The research method used commonly by this paradigm, experimental design, typically requires a testable hypothesis, independent and dependent variables, pre-test and post-test, and experimental and control groups (Baker, 1994).

While experimental design tests hypothesis based on previous theories starting with the theories in that area, constructivism aims at understanding social phenomena starting from the data collected (Baker, 1994; Allwright and Bailey, 1991). Ethnography would be a typical example of the latter. In ethnographic studies the researcher is more likely to be concerned with "verstehen", rather than preconceptions or theories (Baker, 1994: 237). Thus, whether the researcher moves from theory first or from data first will influence the data collected and the outcome of the research (Allwright and Bailey 1991).

It should be noted here, however, that teacher trainees will typically lack the essential resources of a "data-first" approach in an undergraduate degree (Allwright and Bailey, 1991: 38). They will not have an extended period of time with unlimited access to research context to be able to gather such rich data to build their research on. Moreover, they will lack the experience with teaching-learning experience to base their research on. Although it is possible for teacher trainees or novice teachers to adopt this approach, it will require significantly more time than a researcher with experience and motivation to learn from the context since the trainees will need to familiarise themselves with the research context and the teaching-learning experience first, which has been only theories for them until that point.

Constructivist paradigm does not have generalisability among its aims. On the contrary, its core understanding about reality is that it is socially constructed and different realities can clash with each other at times (Mertens, 2005). Therefore, each research context is expected to be unique and the realities dynamic and changing, even in the process of research. The data

collection methods of constructivist paradigm includes interviews, observations, and document analysis (Mertens, 2005).

Generalisability is not a concern of the critical theory either. While constructivism works with multiple subjective realities, critical theory works with multiple realities shaped by the social practices and shared by the people in the same social structure. Critical theory questions the subjective reality of constructivism and suggests that research should account for the social structure and power relations within that social structure (Kincheloe and McLaren, 2003). Thus, this paradigm is primarily concerned with emancipation and empowerment of those involved (Mertens, 2005). Since the participants' realities are at the core of this paradigm, the research questions are very often decided upon together with the participants, unlike the theory-first or data-first approaches.

The aim (of action research) is not a pseudo-neutral description and explanation of reality and technological control of reality in the sense of the analytical-nomological tradition, but a theory based modification of reality which is initiated in the exploratory phase and often involves a practical-emancipatory interest…(Grotjahn 1987: 57)

Detailed examples of such practice is well-accounted in the studies of the most well-known critical literacy researcher, Freire (1974; 1985). Action research makes use of intervention and manipulation of variables, yet, at the same time suggests that research context cannot be stripped off its social context (Greenwood and Levin, 2000).

Critical theory typically uses action research as its method of inquiry and the emphasis is on the emancipation and empowerment of the participants as reviewed above. Use of action research, thus, also aims at ending the researcher-practitioner duality by empowering the practitioners to produce knowledge (Reason and Bradbury, 2001). Although education is a practice-oriented field and collaborative work with academics and practitioners is not uncommon, action research has great potential for teacher trainees to be involved in knowledge production in their professional lives.

Constructivist paradigm suggests "confirmability" instead of the objectivity claim of positivism and post-positivism (Mertens, 2005: 15), where

the research is presented via detailed accounts of the research process, research context, and participants through use of narratives in textual representation (Mertens, 2005; Guba and Lincoln, 2005). Since this paradigm argues for the socially constructed realities, it also acknowledges the role of researcher in inquiry and refrains from the traditional textual representation of positivist and post-positivist paradigms where the researcher is essentially absent from the research process, data, and findings (Guba and Lincoln 2005). Narrative, as reviewed above for example, is a common representation in this paradigm.

Another major issue emerging at this point is ethical concerns. While the positivism oriented paradigms do not leave room for the participants, constructivist paradigm includes and acknowledges the participants in the research process (Mertens, 2005) Critical theory, on the other hand, advocates for explicit account of the researcher's starting points, assumptions, and aims, disregarding the objectivity claim of positivism (Mertens, 2005). Therefore, the ethical concern of a critical theorist would entail revealing their assumptions to the participants and to the consumers of the written account of the research (Guba and Lincoln, 2005).

Mixed methods and educational research

If we go back to the dichotomy of qualitative vs. quantitative inquiry, mixed methods need to be reviewed since they are being used in they field of education commonly. It has been long recognised that in language teaching, qualitative, quantitative dichotomy is neither feasible, nor desirable (see for example Nunan, 1992; van Lier, 1988; Allwright and Bailey, 1991). Usually, there is a need for a hybrid research in terms of data collection methods, data, and data analysis methods (Nunan, 1992).

Educational research shares the social sciences' assumptions and approach but at the same time it is more heavily practice oriented. Whether large scale programme evaluation or small scale classroom research, theory testing or seeking for introspection from the students; L2 research almost always has a practical, application concern that will affect the current practice through providing an improved understanding of the language learning process. This means research potentially calling for generalisability, generalisability in a

much smaller scale though it may be, as well as acknowledgement of the dynamic nature of the participants and research context; rich, qualitative data together from students' diaries, interviews, as well as exam results, depending on the research questions.

Although practicing teachers do use mixed methods in their classrooms, and L2 researchers advocate against the strict dichotomy of qualitative vs. quantitative, the long recognised position of quantitative inquiry as pure science manifests itself in teacher trainees' research projects, particularly in the research proposals.

STUDY

Purpose of the study

This study seeks to find out about the teacher trainees' proposed research methods for their undergraduate research methods course. 42 final year ELT programme research students participated in this research. The participants' research proposals revealed an overwhelming preference for experimental design for their research projects. Based on these proposals, the question this research inquires about is "What is the reason behind the ELT research methods students' substantial preference for experimental design?"

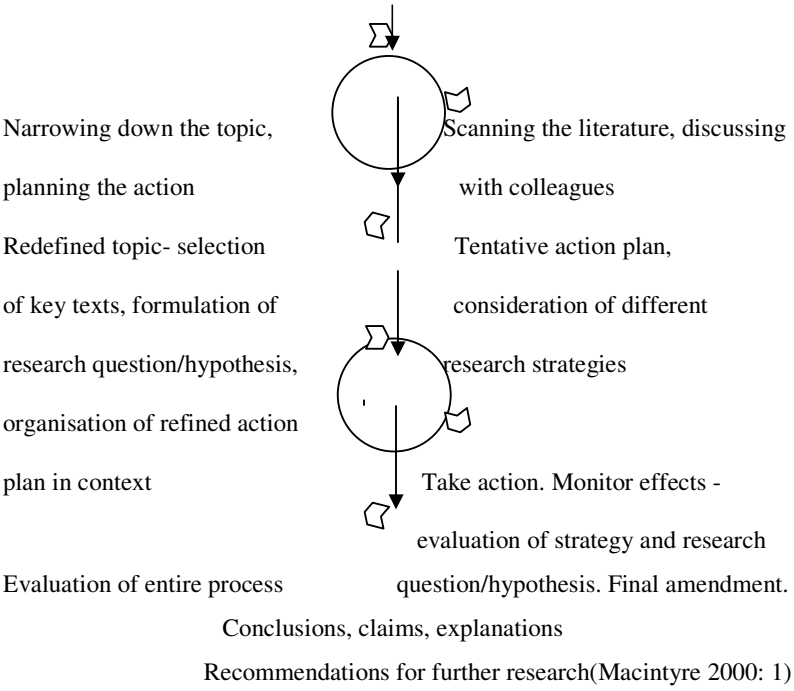
Method of Study

In this study, action research is used since being the lecturer of the research methods course, the researcher assumed insider, participant role of the teacher-researcher. A highly uneven distribution of research methods proposals from the students, led the teacher-researcher to inquire about the reasons behind the overuse of experimental design in undergraduate research course offered by ELT department at Cukurova University through inquiring about the self-reports of the students as well as fellow research methods lecturers.

Macintyre's action research stages were used for this study:

Reflection and analysis of current practice-

General idea of research topic and context



The findings will not only help the teacher-researcher to reflect and take further action within her research context, but also help generate knowledge on the undergraduate research courses of ELT programmes.

Procedure

This study inquires about the ELT teacher trainees' choice of research designs for their research methods course. The research methods course took a year, starting in the spring term of their third year and continuing in the fall semester of their final year. The students attended lectures on research methods in the first term of the course, while at the same time working on their research questions and literature review. At the end of the first term, they submitted research proposals with provisional action plans. In the second academic term of the course, the students started data collection process. Of course, as in any

research project, the students frequently went back to their research questions, literature reviews, and research methodology to make alterations and adaptations as they progressed in their research. The students submit their research at the end of the second academic term of the course.

Research Instruments

Interviews with the students were conducted upon analysis of students' research proposals. The interviews inquired about the students' reasons for choosing experimental design from several possible research designs, the changes in their actual research from their initial research proposals in relation to the research methodology, and their perceptions of available research designs. Further interviews were made with two colleagues about the same issues.

Findings 'Reflection and analysis of current practice'- Analysing student proposals

42 proposals were analysed as the first step of data analysis. The proposals reveal an overwhelming majority of preference for experimental design. 30 students proposed use of experimental design in their proposals, while three students proposed descriptive design, six mixed methods, and three observational designs.

When examined, 28 proposals with experimental design, refer to causality this design offers as their rationale. These papers focus on looking at the effect of the intervention they are planning to give. The research questions of these papers vary from looking at the effect of a teaching technique, such as the effect of task based teaching on vocabulary, to looking at the effect of gender equity in L2 classroom.

Out of these 28 proposals, 17 papers refer to experimental design as the most reliable method. Similarly, 7 proposals suggest that experimental design will help them come up with more reliable results through numerical data and statistical analysis.

Another important theme emerging from the proposals is the generalisability experimental design offers. In three papers, generalisability is explicitly stated, via terms such as "applicability of the findings to a wider

context", while in 24 proposals, it is possible to see the role of generalisability in students' remarks on the population and sample population of their research. All these students claim to increase generalisability through the selection of their sample population. Sampling and generalisability carries such an importance for these students that one student proposes using random sampling for the interviews to increase generalisability, while he could propose to use interviews to collect data, more in depth and richer, based on his initial findings of the data from the questionnaire he was planning to give.

Two proposals provide very important insight on these students' motivation of choosing experimental design. These proposals state that they expect their design to help them improve their teaching. In other words they want to witness the theories they have been learning in their ELT methodology courses in action and test the effectiveness of these theories. One of these proposals also state that the student chose this design for its time efficiency qualities.

Two proposals, one with mixed-method and one with observational research, claim in their rationale that these designs will provide them with the flexibility that they might need in the course of the research. It is important that these students take the dynamic nature of the educational settings into consideration while designing their research methodology, however, no other proposal refers to such a need. On the contrary, all the papers proposing to use experimental design have a very high degree of control.

'Taking action' -Students' perceptions

15 students were interviewed about their choices of research designs. The interviews confirm the initial findings from the analysis of student proposals. All 15 students expressed in their interviews that they proposed to use experimental design because they believed experimental design was more objective and reliable.

It should be noted here that because of feasibility issues, such as access to schools and resources like computers, video players, and so on that their interventions required to be used, and as a result of the normal course of a research process with continuous revision and adaptation, some of these students changed their research designs once they reached data collection stage.

The answers to the above question reflect their beliefs before the data collection stage.

Three of the students that changed their research questions and designs due to feasibility reasons expressed that they still believed experimental design to be more reliable and objective. When inquired further, they expressed a certain comfort numerical data would provide for them.

One student was especially resistant to having to abandon experimental design. He was working on gender equity and we had earlier on decided that observation together with questionnaire and interviews would be used for his data collection. However, in his interview he expressed unease working with students' self-reports. He stated that he did not think introspective methods would provide "scientific" data. When asked to elaborate further on what he considered to be scientific, he expressed that he was worried the participants of his research would not provide reliable, trustworthy data. His second concern shows his underlying belief about what scientific research is: the research should include testable hypothesis that can be applied to a large population.

It should be noted here that this student was not the only one expressing discomfort with introspective data collection methods. Another student also stated that she did not find the data from interviews and questionnaires entirely reliable since the data from the participants' self-reports would be limited to that research context and it would not be certain that the self-reports would be representatives of a wider population.

The underlying belief that scientific research requires experimental design was expressed by two more students. These students stated that they initially planned to use experimental design because they believed that this was the only design that was "scientific enough". These students were researching about the ELT students' perceptions of the efficiency of Culture Course in departmental programme and had changed their research design after they reached the data collection stage. These students, however, did not show resistance to introspective methods, which they used as research instruments. In fact, they expressed that they valued these methods as they provided them with important data.

The second common theme emerging from the student interviews is the belief that experimental design would be more time efficient and easier to conduct with high control and "visible, concrete" results quantitative data would provide. These students expressed that the results of a comparison of experimental and control groups or pre-test and post-test would generate "more certain" results, which would require a more "detailed and time consuming planning stage" with qualitative data. Through comparison, it would be easier to see the "effect of a certain method", referring to causal relationship experimental design promises.

Their emphasis on "concrete, visible, more certain" results is related to the data analysis stage of their research. Through the use of experimental design, these students hope to show the readers that their results and conclusions with regard to causality are out there for the consumers of the research to see for themselves. Students expressed great faith in quantitative data to show the causality "objectively". These answers, again, relate to reliability, which came up in the analysis of the proposals as well as in answers to other questions in interviews.

Finally, two students, different from those who expressed the same point in their proposals, stated that through their research using experimental design, they learned a lot on ELT methods. Similar to those students who expressed the same argument in their proposals, these students approach their research course as a means to see the ELT methods in action and test them.

Student interviews show that the students prefer experimental design because: 1) they find experimental design to be more reliable with quantitative data, through which they can show the causality they focus on, and 2) they find experimental design to be more time-efficient and easier to conduct due to the high control experimental design promises to the researcher. Interestingly, the issue of generalisability, a common theme in proposals, did not come up in the interviews except for one student's answers.

Next step in this action research was to interview colleagues lecturing research methods course. Both lecturers state that the students feel more comfortable working within the positivist paradigm due to the high degree of control it provides. However, they add, the students have to make changes and

adaptations in their designs at the data collection process due to feasibility issues. Yet, the students still prefer using quantitative data and data analysis in their altered research design methods as they give them a sense of safety. As a result of the students' inclination towards quantitative data analysis, the participants in their research are virtually invisible, expressed only via numbers and figures, both lecturers remark.

One colleague further remarked that the students, being final year teacher trainees, will not have the necessary experience and information level to be able to make a research within constructivist paradigm. It is for the same reason that the researcher of this study also found herself strongly recommending the students using observation to prepare "low inference" observation checklists with pre-planned categories before engaging in the observation process (Allwright and Bailey, 1991: 64).

Interviews with two other lecturers of research course reinforce the point emerging from the student interviews and proposals that the students feel themselves safer using quantitative data.

Discussion of the findings and Implications

The findings point out that the students' choice of working within the positivistic paradigm is due to three main important points. The "objectivity" claim positivism offers to the researchers, the lack of experience teacher trainees have in teaching-learning process, and the underlying assumptions of the students that the positivistic paradigm offers more "scientific" research.

The role of objectivity in students inclination towards the positivistic paradigm is visible in student reports about their beliefs that quantitative data will increase reliability, generalisability, and objective interpretation of causality. However, dismissal of the other research paradigms and designs is problematic since, as Allwright and Bailey (1991) remark, not all theories in ELT are directly testable. Besides, as argued above, classroom dynamics and the complex nature of human beings do not lend themselves easily to isolate all variables to reach such unproblematic conclusions of causality. Therefore, it is essential to raise teacher trainees' awareness that what may actually seem as the strength of positivism, claims of causality and generalisability, are actually

problematic when it comes to language classroom, or any educational setting. Since the aim of the research methods course is to help the students prepare for their professional lives as language teachers and researchers, the trainees should recognise the richness of the data L2 classroom can provide and should not dismiss the context of the research to attain generalisability and causality.

The value these students put on objectivity and reliability should also be questioned as the research they are preparing to do, both for the course and for their professional lives, demands a subjective stand point too. Since L2 research is essentially about human experience and learning process, depending on the research questions, introspective methods, for example, are invaluable data collection methods in this process. It is important that the trainees learn to ask and trust their students while collecting data in the future.

In this respect, another problem rising is the absence of the participants, in this case students and teachers, in the students' research. Due to expressed student comfort in numerical data and data analysis, the participants become invisible in their research. However, being prospective teachers, the focus of their research is essentially the students and the learning-teaching experience. Although the absence of participants in the research is a desirable feature of positivistic paradigm to create the effect of researcher as mere observant of a natural/social phenomena, as discussed above, educational research is essentially about these participants and they should be given more voice.

The second important finding is the role of inexperience of teacher trainees in their research. Lack of experience and personal theories, beliefs of these students about language teaching inevitably places positivistic paradigm as the safer choice. Both students and lecturers report numerical data and data analysis as the safer ground in research for teacher trainees. As these students gain more experience with the L2 settings and procedures, they are more likely to feel more confident to work on the data the classroom provides rather than the theories, and to work with more qualitative data and data analysis methods. Yet, based on the discussion in the first part of this section, teacher trainers need to raise awareness of the use and value of the qualitative methods for classroom research. Besides, with the new teacher training programme, where research methods is limited to one academic term, L2 teacher trainees will not have the

same opportunity to be actually engaged in the research in a longer period of time, as the participants of this research did, leaving the future students with less chances to see the value of qualitative inquiry. As argued previously, no classroom research will be expected to be merely qualitative or quantitative and the students should be made aware of the value of both approaches.

The last point the findings raise is the perception of qualitative data and data analysis methods to be less "scientific" compared to the paradigms working with qualitative data and methods of analysis. However, this issue is not unique to this research context but is a perception research traditions have been debating on for a long while now. Yet, the findings show that the students should be made aware of the value of the qualitative inquiry, especially in educational settings.

Conclusion

This study discusses the place of qualitative and quantitative inquiry in the students' research projects in L2 teacher education. The findings point out that the students are more motivated to work within the positivistic paradigm. Yet, the literature on research methods point out that both qualitative and quantitative inquiry is indispensable for educational research. In this respect, the findings of this study suggest that the research courses for teacher trainees should incorporate both methods of inquiry based on the points discussed above.

It is essential that the prospective language teachers are equipped with the necessary research tools for their professional lives not only to develop professionally in the language classroom but also to be able to participate in the production of knowledge. Therefore, research courses should take special care that they inform the teacher trainees of all the available research methods for empowerment of these students in their future lives as teacher-researchers.

References

Allwright, D. and Bailey, K. M. 1991. **Focus on the Language Classroom.** Cambridge: Cambridge University Press

Baker, T. L. 1994. **Doing Social Research.** New York: McGraw-Hill, Inc.

Chaudron, C. 1998. **Second Language Classrooms: Research on Teaching and Learning.** Cambridge: Cambridge University Press.

Denzin, N. K. and Lincoln, Y. S. 2003. Discipline and Practice of Qualitative Research. in Denzin, N. K. and Lincoln, Y. S. (eds) **The Landscape of Qualitative Research: Theories and Issues.** (2nd ed.) Thousand Oaks, London, New Delhi: Sage Publications. pp. 1-45

Foucault, M. 1969. **Archaeology of Knowledge.** Translated by A. M. Sheridan Smith. London and New York. Routledge.

Freire, P. 1974. **Education for Critical Consciousness.** London: Sheed and Ward

Freire, P. 1985. **The Politics of Education: Culture, Power and Liberation.** London: Macmillan.

Gadamer, 2004. **Truth and Method.** London: Continuum International Publishing Group Ltd

Greenwood, D. and Levin, M. 2000. Reconstructing the Relationships between Universities and Society through Action Research. in Denzin, N. K. and Lincoln, Y. S. (eds.) **Handbook of Qualitative Research.** (2nd Ed.). Thousand Oaks, London, New Delhi: Sage Publications. pp. 85-106.

Grotjahn, R. 1987. On the methodological basis of introspective methods. in Faerch, C. and Kasper, G. (eds) **Introspection in Second Language Research.** Clevedon: Multilingual Matters. pp.54-81

Guba, E. G. and Lincoln, Y. S. 2005. Paradigmatic Controversies, Contradictions, and Emerging Confluences in Denzin, N. K. and Lincoln, Y. S. (eds.) **The Sage Handbook of Qualitative Research.** (3rd ed.) Thousand Oaks, London, New Delhi: Sage Publications. pp. 191-213.

Kincheloe, J. L. and McLaren P. 2003. Rethinking Qualitative Theory and Qualitative Research. in Denzin, N. K. and Lincoln, Y. S. (eds) **The Landscape of Qualitative Research: Theories and Issues.** (2nd ed.) Thousand Oaks, London, New Delhi: Sage Publications. pp. 433-488.

Lincoln, Y. S. and Guba, E. G. 2003. Paradigmatic Controversies, Contradictions, and Emerging Confluences. in Denzin, N. K. and Lincoln, Y. S. (eds) **The Landscape of Qualitative Research: Theories and Issues.** (2nd ed.) Thousand Oaks, London, New Delhi: Sage Publications. pp. 245-291

Macintyre, C. 2000. **The Art of Action Research in the Classroom.** London: David Fulton Publishers.

Merriam, S. B. 1998 **Qualitative Research and Case Study Applications in Education.** San Francisco: Jossey-Bass Publishers.

Mertens, D. 2005. (2nd ed.) **Research and Evaluation in Education and Psychology: Integrating Diversity with Quantitative, Qualitative and Mixed Methods.** Thousand Oaks, London, New Delhi: Sage Publications

Nunan, D. 1992. **Research Methods in Language Learning.** Cambridge: Cambridge University Press

Peters, M. and Lankshear, C. 1996. Postmodern Counternarratives in Giroux, H. A., Lankshear, C., McLaren, P. and Peters M. (eds.) **Counternarratives: Cultural Studies and Cultural Pedagogies in Postmodern Spaces.** New York and London: Routledge. pp. 1-40

Reason, P. and Bradbury, H. (eds.) 2001. **Handbook of Action Research: Participative Inquiry and Practice.** London, Thousand Oaks, New Delhi: Sage Publications.

Taylor, S. J. and Bogdan, R. 1998. (3rd ed) **Introduction to Qualitative Research Methods: A Guidebook and Resource.** New York: John Wiley and Sons, Inc.

Torfing, J. 1999. **New Theories of Discourse: Laclau, Mouffe, and Žižek.** Oxford: Blackwell Publishers

Van Lier, L. 1988. **The Classroom and the Language Learner: Ethnography and Second-Language Classroom Research.** London and New York: Longman

Wallace, M. J. 1998. **Action Research for Language Teachers.** Cambridge: Cambridge University Press