

CHAPTER 5 :

RESEARCH METHODOLOGY:

PHASE I

*“Education is a mirror held against the face of a people.....
how they take care of their children tells unerringly who they are”*

(Bereday, 1964, p5-6).

5.1 Introduction

This chapter outlines the methodological procedures which were utilized as part of the study, specifically focussing on Phase I. It also explains why the methods chosen were considered to be the most productive in order to illuminate the research question. Following on from the ecological systems model (Bronfenbrenner, 1979; Bronfenbrenner & Morris, 1998) it was proposed to take a multi-perspective approach in this study of the process of transition. The study investigated the views of the two groups of teachers involved in the process, and also investigated the demands of the transition process from the perspective of both the parents and the children themselves. Phase I of the study was specifically concerned with the views of the two groups of teachers involved in the transition from preschool to primary school in Ireland: preschool practitioners and teachers of junior infants classes. The study was exploratory in nature, the overarching aim was to provide an information base on this transition, and to improve understanding about how best to support children's learning during this time. The specific objectives of Phase I of the study were:

- To survey a nationwide sample of preschool practitioners to investigate: their beliefs about the transition process; policies and practices in place in their preschools to facilitate transition; and activities they believe primary schools should undertake to facilitate the transition process.
- To survey a nationwide sample of primary school teachers to investigate: their beliefs about the transition process; policies and practices in place in their schools to facilitate transition; activities they believe preschools should undertake to facilitate the transition process; and difficulties they are experiencing in the junior infants classroom.
- To compare and contrast the views of the two groups of teachers to gain an insight into the areas in which they are in agreement, and the areas in which their opinions differ.

- Within these parameters another aim was to compare data in terms of urban - rural and disadvantaged – non-disadvantaged subgroups and make exploratory comparisons between these subgroups.

The full study made use of both quantitative and qualitative data. It was decided that the combination of both quantitative and qualitative data would enrich the overall picture of this transition that the study hoped to provide. Cohen, Manion and Morrison (2000) define triangulation as “*the use of two or more methods of data collection in the study of some aspect of human behaviour*” (p112). As the study was the first investigation into the practice of transition from preschool to school in Ireland, Phase I involved a large-scale investigation into the transition policies and practices already in place in our preschools and schools. Having collected this block of data from preschool practitioners and teachers of junior infants classes, a more qualitative approach was employed in Phase II.

5.2 Sampling

The preschool questionnaire was sent to a nationwide sample of 249 preschools, with a total response rate of 77%. The primary school version of the questionnaire was sent to a nationwide sample of 250 teachers of junior infants classes, resulting in a total response rate of 83%. Details of the sampling procedure are outlined below.

The total number of preschools in the sample pool was 3341, the total number of primary schools in the sample pool was 3284, resulting in total pool size of 6625. Following recommendations of Cohen et al (2000) it is possible to determine a reasonable sample size by using a mathematical table which indicates the appropriate size of a random sample for a given number of the wider population. For a population size of 7,000 a sample size of at least 364 was recommended (p94). Taking into consideration factors such as expense, time for data collection, and time for data entry, it was decided to send the questionnaire to a sample of approximately 500 settings in total in order to access the most representative sample possible from the total population. One questionnaire was sent to each setting, the questionnaires were addressed to ‘the Manager’ of each preschool selected, and the ‘Teacher of the Junior Infants Class’ in each primary school selected.

5.2.1. Preschool Sample

The preschool sample was identified using the lists of registered preschools held by each of the ten Health Boards across Ireland (now known as Health Service Executive)¹. The Child Care (Pre-School Services) Regulations (Department of Health and Children, 1996) state that every preschool in operation in Ireland must be registered with their local Health Service Executive. As the most recent National childcare Census was undertaken in 2000, in 2004 the Health Service Executive listings were considered to be the most up-to-date listing of preschools in Ireland. The preschool officers within each of the ten Health Boards operating at that time were contacted by telephone and asked for a copy of their preschool listing, all of which were received by the researcher.

The lists provided by each of the ten Health Boards were broken down by county. It was decided that the sample should be representative of the total number of preschools registered within each county, so stratified random sampling was used to identify the final proportional sample. Proportional allocation ensures that each stratum contributes to the sample a number of members proportional to its size (Hinkle, Wiersma & Jurs, 1994). In this way each county was represented in the final sample by a number of settings in direct proportion to its percentage of the total national sample.

Simple random sampling was used to select the actual sample from each strata (ie, County listing). Before the sample was taken, each county listing was examined and any “drop-in” services, or childminders were removed from the list. It was considered that “drop-in” services are services which parents use on an ad-hoc basis and therefore they were not considered to be a formal preschool service of the type being considered in this study. Childminders were removed from the listings as very few childminders are registered with the Health Boards. Since the law does not

¹ Up until January 2005, public health and personal social services in Ireland were delivered by a network of ten health boards, located throughout the country. Health and personal social services in Ireland are now delivered by the Health Service Executive, through a network of Local Health Offices, health centres and clinics. Co-ordination is overseen by staff covering four Health Service Executive Administrative Areas.

require registration of all childminders it is not known how many people provide this service for young children. The Department of Justice, Equality and Law Reform (1999) estimated that there were up to 37,900 paid childminders providing a service in Ireland in that year, however it is impossible to get accurate figures. It was decided that to include the small number of registered childminders would not be a representative sample of this group.

Excel Rand was used to generate a list of random numbers, and the sample was chosen using this list. The total number of preschools in the sample pool was 3341, and questionnaires were sent to 249 of these preschools² [See Appendix 1].

5.2.2. Primary School Sample

The Primary School sample was identified using the Department of Education's school listing for academic year 2003-2004 which was the most up-to-date school listing available in February 2005. As with the preschool sample, stratified random sampling was used. In this way the final school sample was representative of the total number of schools registered within each County in Ireland. Proportional allocation ensured that each county was included in the final sample, in direct proportion to its percentage of the total national sample. This method ensures that the sample produces a distribution similar to that in the overall population.

As with the preschool sample, simple random sampling was again used to select the sample. Excel Rand was used to generate a list of random numbers, and the sample was chosen using this list. The total number of schools in the sample pool was 3284, and questionnaires were sent to 250 of these schools³ [See Appendix 2].

5.3 Measurement Instruments

To gain an understanding of what policies and practices were in place in preschools and primary schools in Ireland regarding the process of transition to formal schooling it was decided to use self-administered postal questionnaires. This method of data

² Figures were rounded up/down to come to this final figure.

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collection was considered to be most appropriate to the needs of the study due to the size of the sample, the low cost of data collection while reaching the nationwide sample, and the low cost of processing the data gathered. Postal surveys can also be completed at a time convenient to the respondent. Mangione (1998) also advises that postal surveys are a good choice when you have limited human resources for conducting the study, questions can be written in a closed-ended style, the sample has moderate to high investment in the topic, and the list of objectives is modest in length. All of which are the case in the present study. It is acknowledged that such questionnaires also have disadvantages. Low response rates, partly completed questionnaires, and no opportunity for the sample to clarify any ambiguities, were noted as some of these disadvantages. However, due to both budgetary and time constraints it was felt that this was the most appropriate method of data collection for this aspect of the study.

5.3.1 Preschool and Primary School Questionnaires

Two questionnaires were developed, one for preschool practitioners and one for teachers of junior infants classes, containing related questions [See Appendix 5.3 and Appendix 5.4]. The questionnaires were divided into sections, which related to the main research questions: What were the attitudes and beliefs of the teachers about the transition from preschool to primary school? [Section B; Section D; Section E]. What were the policies and practices in place to facilitate the transition? [Section C]. Information was also sought on the background of the setting and teacher themselves [Section A]. The preschool version and primary version of the questionnaire were very similar, but the version sent to the teachers of junior infants classes also contained three supplementary questions which related to classroom organization, the greatest difficulties teachers are facing in the junior infants classroom, and the one thing that would improve the life of teachers of junior infants classes [See Appendix 6].

The questionnaires were based on an extensive review of literature on transition to school. To gain an understanding of both groups of teachers attitudes towards transition activities, some sections of the questionnaire required the teachers to reflect on and judge a number of statements. These questions made use of the Likert Attitude

Scale (Likert, 1932) to measure the attitudes of both groups. The two groups were asked to rank statements on a scale of agreement (ie, 'strongly agree', 'agree', 'uncertain', 'disagree' and 'strongly disagree'). This scale is not an exact measurement of attitude, however it is a useful tool to measure intensity of attitude towards any given issue. In addition to gathering baseline statistical data, the use of open ended questions allowed respondents to reply in greater detail on various issues, yielding valuable opinions and information.

5.3.2 Pilot of Questionnaire

A small-scale pilot of the questionnaire was then conducted. The preschool questionnaire was piloted by a three preschool practitioners, and the primary questionnaire was piloted by three teachers of junior infants classes. Both pilots resulted in modifications to the questionnaires, including the wording of some of the questions. At this point the importance of keeping the questionnaire short enough to encourage participants to complete it was emphasised, and the scale of the questionnaire was reduced. Both groups reminded the researcher of the busy lives of practitioners in modern day preschools and primary schools, and it recommended that the document should be kept as brief as possible, while still covering the most important points.

5.3.3 Expert Panel Review of Questionnaire

While finalising the questionnaires it was decided to have the instruments evaluated by an expert panel, a technique which has been used in previous studies of this kind (Daly, 2002). A group of six experts, five women and one man, were contacted and asked if they would be willing to evaluate both the preschool practitioner and junior infants teacher questionnaire. All agreed to take part in the process. Between them, the group had wide ranging experience in both preschool and primary school education [See Appendix 5]. The group were asked to review both questionnaires, highlight any deficiencies, identify questions that they felt were most relevant, and comment on any areas they felt were of particular interest. Having examined the comments of the expert panel, the questionnaires were modified to include extra information, or in some cases to delete material considered less relevant. Changes

were also made to the wording and layout of the documents following this review. It was also decided at this point to add the three supplementary questions to the primary school version of the questionnaire⁴.

Following this review, the questionnaire was piloted once more by the same group of preschool practitioners and teacher of junior infants classes as had previously examined the document. Both groups commented on the improvement in the questionnaires. Again some minor flaws in the documents were identified which were rectified before dispatch.

5.3.4 Maximising Questionnaire Response Rates

It was decided to send out the Preschool and Junior Infants questionnaires at the time of year when the transition to formal schooling would be in the forefront of each groups minds. Therefore the Preschool questionnaire was sent out in April/May 2005, as this is the time of year when preschool children are being prepared for school start in September. The Junior Infants questionnaire was held until October/November 2005, when the teacher would have just experienced the arrival of a new group of students.

In April 2005, 249 questionnaires were sent out by post to preschools throughout the 26 counties of Ireland. Questionnaires were sent with a covering letter and a stamped addressed return envelope. The response to this first mailing was 106 returned questionnaires. At this point 8 other preschools also advised that they were not eligible to complete the questionnaire. Reasons for this were, the preschool only catered for children of a younger age group than 4-5 years olds, the preschool only catered for children on a short-term basis (ie, while parents were completing a training course, or were in living in temporary accommodation), the preschool only catered for children with major disabilities who would not be attending mainstream school, or the preschool had closed down. In each case the next preschool on the Health Board

⁴ At this stage in the development of the questionnaire it was decided that a compromise had to be made between gathering large amounts of data, and producing a questionnaire short enough in length that respondents would take the time to complete it. It is acknowledged at the outset that data could not be gathered on every aspect of transition and decisions had to be made about which data was considered to be most valuable to the study.

listing was selected in place of these non-eligible preschools, and questionnaires were sent to this group.

Mangione (1998) advises that the single most important technique for high return-rates for questionnaires is the use of follow-up reminders. As the Health Board listing give details of phone numbers for every service, it was decided to follow up the initial mailing with reminder phone calls to the 143 services who had not responded to the questionnaire. Lavrakas (1998) reports that follow-up phone calls for postal surveys are a particularly efficient use of mixed mode methodology, that can effectively reduce non-response error. When making these phone calls the researcher checked that the service had received the questionnaire, as some preschools are located in community centres, or town halls, and have no direct post box. If the questionnaire had not been received another copy was sent. The researcher reminded those who reported that they had received the questionnaire that they still had some time to return it. It was acknowledged that services were extremely busy, however, it was requested that if at all possible, a reply would be very much appreciated.

Following these phone calls, a further 52 questionnaires were then returned. These calls also resulted in a further 7 preschools advising that they were not eligible to take part in the study, and as above, the next preschool on each Health Board listing was selected in place of the non-eligible preschool. An issue that arose from these discussions with preschools, was that of preschools who cater for children with severe disabilities. Discussions with two managers of such preschools found that they had in fact very well tuned transition plans and policies in place. However they found that they were unable to complete the questionnaire as it was not relevant to their students, and therefore felt unable to take part in the study. In these cases the next preschool on the list was selected to take part in their place.

In May 2005 a reminder letter was sent to the preschools who had still not returned their questionnaires. Another copy of the questionnaire and another pre-paid reply envelope was included with this mailing. Following on from this mailing, schools which had requested a second copy of the questionnaire during the first phase of

follow-up phone calls, but had not returned either the first or second copy sent, were once again called, advised that data was soon to be analysed, and requested to complete the questionnaire and return it within two weeks. A further 34 questionnaires were received following these reminders.

This resulted in a total response rate for the preschool questionnaire of 77% (192 questionnaires). Five of these were deemed to be invalid and data was not included in the final analysis (these were either returned blank, were completed incorrectly, or one was received months after the final closing date for analysis) leaving a total of 187 questionnaires included in the analysis.

During October and November 2005, 250 questionnaires were sent out by post to the sample of primary schools throughout the 26 counties of Ireland. As with preschools, questionnaires were sent with a covering letter and a stamped addressed return envelope. The response rate to this first mailing was 104 completed questionnaires. At this point, four schools also advised that they would be unable to take part in the survey. One of these was a school for pupils with special needs and they did not feel that they could answer the questions, two schools did not have junior infants classes, and the last was actually a senior school and should not have been on the original list. In each case the next school on the Department of Education listing was selected in place of these non-eligible schools, and questionnaires were sent to these schools instead.

As with the preschool sample, the initial mailing was then followed-up by phone calls to the 142 schools who had not returned the questionnaire. Many of the phone 'area codes' on the Department of Education listing were found to be invalid, so this involved checking the up-to-date phone numbers/area codes for many of the schools. Although this was a time consuming process, the use of phone calls to follow up on the mailing proved once again to be a very effective use of mixed mode methodology. The direct contact with schools gave the researcher the opportunity to first of all check that the service had received the questionnaire, and to advise the teachers not to worry if they had received but mislaid the questionnaire, that another copy could be forwarded for completion. Finally, the researcher reminded those who reported that they had received the questionnaire but had not yet completed it that they still had

some time to return it, and reminded them how important their views were to the study. During the course of these phone calls, another 15 schools advised that they were unable to take part in the survey. One of these schools catered for pupils with special needs only and did not feel that the questionnaire was relevant to them, one would only advise that they did not feel the questionnaire was applicable to their school, one advised that they were “not happy to take part”, and the other schools did not have junior infants pupils. In each of these cases the next school on the Department of Education listing was selected to take place instead. Following these phone calls, another 64 questionnaires were then returned completed, and another two were returned blank with no explanation as to why the school felt unable to take part. As each questionnaire was given an identifying number, it was possible in both these cases to select the next school on the list to take part in the study.

In early February 2006 a reminder letter was sent to 58 schools, who had not yet responded (and who had not already requested another copy of the questionnaire during the previous phone calls). The response rate for this second mailshot was 22 questionnaires. During this time questionnaires were also returned by schools that had previously requested another copy of the questionnaire. Following on from this mailing, schools which had requested a second copy of the questionnaire during the first phase of follow-up phone calls, but had not returned either the first or second copy sent, were once again called by telephone, advised that data was soon to be analysed, and requested to complete the questionnaire and return it within two weeks. Following these calls, another 18 questionnaires were received. This resulted in a total response rate for the school questionnaire of 83% (208 questionnaires).

Therefore, the overall response rate for the questionnaire (preschool and primary school) was 80%. Mangione (1998) advises that researchers need to aim for a response rate greater than 50%. Response rates of between 60%-70% are considered acceptable, and rates of 70-85% are considered to be very good. Cohen, Manion and Morrison (2000) would support this, suggesting that a postal survey should obtain at least a 40% response rate, however it is suggested that with effective use of reminders that a figure of 70-80% should be possible.

5.4 Ethical Considerations

The ethical considerations in Phase I of the project were different to Phase II [See Section 6.6] in that adults were the participants in the research process rather than children. The study complied with research principles outlined by the Research Ethics Committee at Dublin Institute of Technology (DIT). The guiding ethical principles for Phase I were: respect for human dignity; respect for free and informed consent; respect for privacy and confidentiality; and respect for justice and inclusiveness. The project underwent ethical clearance from the Research Ethics Committee at DIT before data collection commenced. Guidelines from the Committee advise that the researcher should safeguard the interests of the research participants, and explain to the participants in meaningful terms all aspects of the research project. Anonymity and privacy should be respected and personal information should be kept confidential. Any guarantee of anonymity or confidentiality should be strictly adhered to. Both the preschool practitioners and the teachers of junior infants classes were assured that confidentiality would be respected and that any comments made would not be attributed to them directly.

5.5 Data Input and Analysis

The data from the questionnaires was analysed using the Statistical Package for the Social Sciences (SPSS). The researcher set up data entry files in SPSS Version 12 for Windows, and data was input and analysed by the researcher using this system. As the data had a multi-dimensional structure Cronbach's alpha coefficient was not considered appropriate in terms of measuring reliability. Following a meeting with the Statistical Advice Unit⁵ within Dublin Institute of Technology, and their consideration of the questionnaire data gathered during the project, it was decided that the most appropriate method to summarise the data was frequency analysis. This was followed by cross-tabulation calculations⁶ enabling the frequency patterns of specific sub-groups within the sample to be investigated. This method was used in terms of

⁵ The Statistical Advice Unit, is a Unit set up within Dublin Institute of Technology, to offer expert advice on statistics to Postgraduate Students

⁶ A cross tabulation displays the joint distribution of two or more variables presented as a contingency table in a matrix format. Each cell shows the number of respondents that gave a specific combination of responses.

comparing Designed Disadvantaged and Non-Designated Disadvantaged data, and also in terms of Urban-Rural comparisons. To examine some of these relationships further the Pearson chi-square statistical test⁷ was used to investigate whether there was statistical evidence of relationships between particular variables. Results of these analyses are presented in Chapter 8.

For some open-ended questions in the questionnaire respondents were able to supply answers which then had to be grouped into workable categories for analysis. For example, teachers were asked to nominate skills that they felt were important on arrival at school. In instances such as this, the researcher grouped the individual skills into general skill areas, such as social skills, language skills, and independence skills. For example, the definition for the Social skills category was: “ability to relate confidently with others; ability to co-operate with others; ability to mix with adults and peers; ability to share with others and take turns”. Definitions of skill categories are given as they occur in Chapter 8 which details the questionnaire findings. In the interests of reliability, an Early Childhood Studies MPhil student studied the definitions and categories used in such questions, and independently allocated a sample of individual skills to categories to ensure inter-rater reliability. In a few cases, where skills were allocated to categories other than the main researcher had allocated them, these instances were discussed and the two researchers came to a general agreement as to which category was best suited. This system was used to ensure that data was coded without researcher bias.

Following analysis of the data from each sample, a one page information sheet detailing the main findings of each individual group was sent to all respondents. The preschool group were sent their information sheet with a covering letter thanking them for taking part in the study in September 2005. The teachers of the junior infants classes were sent their information sheet with a covering letter thanking them for taking part in the study when they returned to school in October 2006.

⁷ Pearson's chi-square test (χ^2) tests a null hypothesis that the relative frequencies of occurrence of observed events follow a specified frequency distribution. The events are assumed to be independent and have the same distribution, and the outcomes of each event must be mutually exclusive.

5.6 Summary

The aim of this study was to present a comprehensive picture of the transition from preschool to school in Ireland. A multi-disciplinary approach was employed. Phase I gathered data on the practices and policies in place in Irish preschools and primary schools relating to the area of transition, and the practices teachers in both settings feel are of most benefit to children undergoing this transition. Beliefs about the transition process, activities that would facilitate the transition process, and difficulties in the junior infants classroom were also investigated. Self-administered postal questionnaires were considered to be most appropriate to the needs of the study. The overall response rate for the questionnaire (preschool and primary school) was 80%. Data from the questionnaires was analysed using SPSS and findings are presented in Chapter 7. Chapter 9 presents a discussion of the two Phases as a whole.