

Chapter 7

DATA ANALYSIS: QUALITATIVE ANALYSIS OF THE CASE STUDIES

Introduction

The data collected in Stage 2 contrast with that collected in Stage 1 and presented in the previous chapter. This chapter includes a brief summary of the purpose and procedures for the qualitative analysis of Stage 2 of this study, an exploration of each of the five case studies and a discussion of the findings of each, a discussion of the findings concerning the integration and comparison of the five case studies, a summary of the findings and a concluding statement.

Purpose

As stated in Chapter 4 the purpose of this stage was to find answers to the following questions.

- (i) What was the path that this teacher took in his/her development of excellence in terms of the NSW special education competencies?
- (ii) Are there commonalities between the teachers in the case study research concerning their development of these competencies?

As in Stage 1 this stage was concerned with the phenomena of the development of excellence in special education teaching. However, unlike Stage 1 it did not make any assumptions about what these phenomena might be but allowed these to emerge freely during each of the case studies. Thus the subquestions directly addressed in Stage 1 were not directly addressed in this stage by the researcher. Any reference to the Stage 1 subquestion themes was teacher generated.

Summary of the procedures

Stage 2 involved five case studies. The approach was phenomenological and used the fieldwork activities of participant observation and face-to-face interviews. The subjects of these activities were teachers who, in their Teacher Questionnaire, had volunteered (and their principals and supervisors had agreed) to be part of this qualitative research. They were assessed by both themselves and their supervisors as excellent teachers and represented a range of NSW DSE special education teachers. The writer-as-interviewer was concerned to find out the story of their professional journey towards excellence. The interviews are more correctly described as informal conversations. The writer briefly recounted a teaching or other professional episode that she had observed in order to focus the teacher's thoughts on a particular strategy or behaviour that she/he had used. Each of these was a demonstration of a NSW DSE competency. The interviewees then asked how this strategy, skill or belief had been developed. There was no set wording or structure to this style of questioning. Rather prompts and reflective listening techniques, such as paraphrasing and summarising, were used by the interviewer who allowed the teacher to "think aloud" as she/he tried to trace the development of a particular competency. This strategy resulted in a wealth of material, some of which was rambling and repetitive, arising from the particular teacher's attempts to elucidate his or her professional development story. This story had not been thought about in any depth previously. The interviews were audiotaped and later transcribed. There were approximately 13 hours of interviews.

Analysis of the data

Analysis required the devising of an indexing system to allow competency/contributor linkage. The various demonstrated competencies were each linked to the contributors that the teachers had said led to the development of that competency. This allowed the themes and patterns of competency development to be explored as they related to each teacher and as they related to the five teachers as a group.

The formation of the subbranches of the contributor branch was teacher-driven, that is, as each transcription was explored any new categories of

contributors referred to by the teachers, were added. This resulted in a final total of 13 contributors to the development of the various competencies. In her development of the definitions of each of these contributor items, the writer was influenced by the apparent concepts of the five teachers. A brief definition of each, and where necessary an abbreviation, has been provided in Chapter 1.

The three major branches or categories (base data, DSE competency items, contributors) and the sub-branches were formatted by the NUD•IST program as a tree index system. This has been included in Chapter 4.

The interview transcriptions were divided into units. Each segment or unit of uninterrupted speech, made by either the researcher or the teacher, became a unit and each unit was given a number. A unit of speech, irrespective of its length, was entered as a paragraph. Each unit was numbered automatically by the NUD•IST program. Some teachers spoke at length without pause and some made many, but shorter, statements. Unit numbers for the interviews ranged from 301 to 503. Most of the talk was done by the interviewees.

The writer's exploration of the transcripts led to her identifying one or more units, usually consecutive, about a particular competency and its contributors to the development of excellence. Whilst most units referred to only one competency, this was not always the case. In some cases one, or a group of units, referred to more than one competency and in many cases these units contained discussion about more than one contributor. It was a feature of all the transcriptions that they contained more than one discussion about some competencies. Such discussions may have been initiated by the writer who observed, and so asked about, two or more differing demonstrations of a competency. A second, and later, reference about a competency may have been initiated by the teacher as part of his/her process of reflecting about the development of a particular competency.

Each unit, or group of units, was indexed to show:

- the base data subcategories;
- the competency, or competencies, it referred to;

- the contributor, or contributors, that the teacher ascribed to the development of that competency.

The following is an example of the indexing for a unit or group of units.

Document D
Text unit 164
Indexed at

| | |
|-------|-------------|
| 1 1 2 | male |
| 1 2 1 | pg |
| 1 3 3 | 31-40 years |
| 1 4 4 | H |
| 1 5 3 | 2-5 years |
| 1 6 3 | 3-5 years |
| 2 16 | comp 16 |
| 3 2 | intrinsic |
| 3 4 | m exp |
| 3 11 | own read |

All five case study interviews were explored and analysed in the above way. This allowed the generation of a computer summary of the competencies and their contributors for each teacher. A matrix system search was then conducted in order to identify the intersection of the competencies and contributors for all the teachers. Each of the 286 cells (22 competencies multiplied by the 13 contributors) in this matrix showed the competencies and their contributors for each of the teachers and for the teachers together. The writer transferred the information from the NUD•IST matrix report to a table format (Table 7.3) showing teachers' attributions of contributors to competencies (presented below).

As a result of this, the writer was able to determine the patterns of contributor usage overall and as they related to the individual competencies. This information was then used as the basis for several arithmetical procedures these culminating in a final procedure which evidenced the exact relationships, as perceived by the group of five teachers, concerning the contributors to the NSW DSE competencies that were demonstrated during the writer's visits.

The individual case studies

Note: Demographic information, which could lead to identification of the teacher or school, is omitted. This largely concerns, but is not limited to, the geographical location of the particular school.

All quotations in the discussions of the individual teachers are the teacher's statements unless otherwise identified in which case they are statements made by the writer.

Teacher A

Teacher A was a special educator in a secondary school in a large inland country town in NSW. At the time of completing her Stage 1 Teacher Questionnaire (late 1994) she was a member of a team of teachers providing for the educational needs of students with intellectual and other disabilities. Her particular class was composed of students with moderate intellectual disabilities. In 1995 her excellence in teaching was acknowledged through her promotion to the position of supervisor (Head Teacher Support) of this team. Her duties, at the time of her interview (April, 1995), included the teaching of students with moderate and mild intellectual disabilities as well as whole school and wider duties. Within the school she had chosen two main non-teaching roles, both of which she considered to have beneficial effects to her students. These were her organisation of the school roll groups and her union activities (NSW Teachers Federation) relating to teacher welfare. The first of these activities involved the integration of her students. At the regional level she was editor of the special education teachers' newsletter, conducted inservice courses and was a major organiser of the biennial special education conference. It is clear that her excellence was recognised beyond her school.

This teacher had an interesting career path to her present position. She left school at the end of Year 10 (as opposed to the final year, Year 12) to work in a nursing home which catered for adults with psychiatric and intellectual disabilities. After a year of this work she decided to return to school, gain university entry, complete a degree in economics and then a qualification as a secondary teacher in economics and geography. This she did. It is usual in NSW (and in Australia generally) to become

qualified first as a mainstream teacher and then, at some later date, to complete a postgraduate qualification in special education.

Her first teaching appointment, actively sought by her, was as the teacher of a class of students with intellectual disabilities in a country secondary school. This experience was an unhappy one (her class was geographically, academically and socially isolated from the rest of the school) and so, after three years (usually the minimum time required by DSE), she sought a transfer and as well made the decision to complete, as an external student, postgraduate studies in special education. She is now both qualified in her chosen field and happy in her third school which is supportive and receptive of her beliefs concerning the importance of normalisation and inclusion. Because of her specialist qualification, Teacher A had not undertaken an extensive NSW DSE special education inservice course, these being in the main reserved for teachers without specialist qualifications. Although she shared her own knowledge and skills as a mentor, she herself did not have the opportunity of being mentored in any continuing sense. She had, however, had the advantage of being given many opportunities and encouragement by senior special educators, within the region and beyond, who had recognised her abilities.

During the two-day period that the writer spent shadowing this teacher several of her peers, as well as the principal, volunteered comments about her dedication and high commitment to students with special needs. These comments were not sought. Evidence of this commitment, including to the principle and practice of inclusion, was demonstrated in several ways during the visit. One example that the writer observed concerned the student roll call. Teacher A, in her 1995 senior position, was responsible for the organisation of this and had so arranged the procedure that roll call groups were vertical and integrated, this allowing all the students with special needs to have contact with students, of all ages, in mainstream education.

Teacher A was an active member of the major Australian professional special education association, the Australian Association of Special Education, read extensively in her professional field and was interested in undertaking higher studies in special education. She had been in the

school for ten years and had never taught in mainstream education. Teacher A had just entered the 41-50 age range.

This teacher planned “to work in special education forever”. The reason she gave in her Questionnaire response in Stage 1 of this study for entering this area of education was that it was a “challenge” and she saw this challenge as ongoing. It is interesting that after both her first appointment and her training in special education she had a child born with a cleft palate and other physical conditions requiring surgery. This was mentioned casually to the writer at a social function and not referred to, either in the Questionnaire or during the visit, as a contributor to her commitment to, or development in, special education.

This teacher appeared to regard the writer as a colleague who had taught similar students and had had similar experiences to hers. News of professional friends and acquaintances was shared as was the mutual experience of arranging a regional special education conference.

With one exception the writer accompanied Teacher A during the performance of all her duties over the two-day visit period. The exception occurred when she was called out of the maths lesson she was giving to her class in order to intervene in a crisis situation concerning the behaviour of another student in special education. The writer took over the class in her absence. Observations of Teacher A included her teaching of her main class, that is, her class of students with moderate intellectual disability, her teaching of reading to a class of students with mild intellectual disability, her lunchtime playground duty during which she had contact with a large number of students in both mainstream and special education, a non-teaching period in which she worked on the program of the above-mentioned conference and finally her participation in a meeting of the senior teachers at her school.

Discussions of observed competencies took place at various times and in various settings. The settings included the back of the classroom when the teacher's aide was supervising the students, and in various classrooms during recess and lunchtime, after school and two non-teaching periods.

Manifestations of 15 of the DSE competencies were noted and then later discussed. Of the seven not observed, that is, Competencies 5, 13, 15, 16,

17, 21, 22, all were relevant to this teacher's situation. It would probably have been possible to have observed them if the visit had been over a longer period. Several of these could not be expected to be demonstrated on a daily basis but could be expected to be demonstrated at some time during a school term.

Several strong themes emerged from the discussions with Teacher A. She repeatedly referred to three main factors contributing to her professional development. In fact they seemed to permeate all the discussions and were interwoven. They were: experience in special education; training in special education; and personal or intrinsic qualities. These three themes are now discussed.

Experience in special education was identified as a contributor to 10 of the 15 competencies demonstrated. In this numerical sense, it was the major contributor to her teaching excellence. From her first negative teaching situation to her current supervisory role, Teacher A had used her professional experiences to influence and shape her teaching. In fact her whole-of-life experiences contributed to her development as a teacher and directly affected her actions. She referred to a situation, when as a child in a kindergarten class, she first felt compassion for a child with special needs. Her first appointment as a teacher in an unwelcoming school only served to strengthen her resolve to improve the educational opportunities of children with special needs. She quoted the principal of the school as saying, "Your room is at the end of the building there. I'll see you at the Christmas party. I don't want to see you or hear your kids for the rest of the year".

This directly influenced her later work to change attitudes (Competency 18). Teacher A explained, "Yeah, but the thing is that's an attitude that's still in some schools and I've always tried as much as possible to work against that system ..."

Since then numerous experiences had been used to influence her teaching. She had learnt much from other situations, some outside the education arena and others within. A public incident was described in which she observed two adults with intellectual disabilities draw attention to their disability, and make themselves vulnerable, because of their way of handling money.

And it's just observation of people in the community that was something that really rankled with me so that I came back and thought really seriously about a lot of things we were doing. And whilst some of the things were quite acceptable, others were modifying to a level that would not be acceptable in the community. And that had to change. We have to have it so that the kids are learning acceptable behaviours. And that actually came from being shopping in Coles.

This interview segment is representative of the way a seemingly unlikely observation or experience directly affected the development of a teaching competency, in this case Competency 2 (applying principles of normalisation). At other times she actively sought a particular experience. Several examples were given of how responsibilities were actively sought, some of these being to give inservice courses. "You become recognised I suppose as the authority in certain areas and people start to come to you and the more they come to you the more that you have to keep up with everything that's going on."

Becoming known to others, especially those who are more senior in the school, inevitably led to more opportunities for enriching experiences. "It was all because the opportunity was there and you grab it".

Inseparable to the above is the fact that Teacher A was driven by her own innate qualities to learn. Her quest to learn, and thus become both a better teacher and a more positive influence on the wider stage, was evident throughout the discussions.

Other innate qualities were discussed. In relation to Competency 11 (preventative behaviour strategies), the writer referred to the teacher's use of humour in a non-confrontationist behaviour management approach. "I'm not a confrontationist. I'm a humourist. Yes, and it works. It works with the majority of kids ... I'm a humourous person anyway. There's an innate humour."

On one occasion she referred to her "native cunning" in picking the most appropriate mainstream teachers to work with in terms of the integration of her students. This reference occurred in the context of a discussion about Competency 12 (understanding of practices underpinning collaboration). The writer asked where she learnt her "native cunning".

"I don't know. I think you've got to be born with a bit of it and then you just become wiser as you become older."

This topic of the development of negotiation and collaboration was pursued and she was asked when she first started to develop these skills. She replied,

Oh, when I was about six and added, I think a lot of it comes down to your personality - whether you're an encroaching, formidable, officious - anyone of those unpleasant things - or whether you are a negotiator ... They're personality traits.

In considering the roles played by experience and innate qualities it is difficult to separate the two. Perhaps personality characteristics urged her to seek and take advantage of certain experiences: perhaps the experiences themselves *spoke* to certain personality characteristics.

Whilst experience and innate qualities, as contributors to excellence, seemed to be interwoven and permeated the discussion between the writer and the teacher, her postgraduate training was referred to separately and more directly in relationship to seven specific competencies. When there was no such reference, there was an implication that this training was not a contributor to the particular competency being discussed.

Examples of the part played by her postgraduate training are given here in relation to the development of two competencies. During the observation period the writer noted that Teacher A was very aware of the medical condition of one of her students with muscular dystrophy (Competency 1). When questioned, she attributed this knowledge to her postgraduate course and in fact still used the recommended text in her classroom for reference purposes.

The dissertation she was required to complete in her postgraduate course lay the foundation for her involvement of the parents in the development of Individual Education Plans (IEPs) (Competency 10). "A lot of it started with the dissertation and becoming involved with the parents ... If you want to know how to get things done right you include the parents and their opinions are very important."

It seemed to be Teacher A's nature to use all possible contributors to learning. She used a variety of sources in addition to the three major ones discussed above. These included learning from her peers, attending conferences conducted by non-DSE organisations as well as DSE conferences and inservice courses, reading journals and books, studying DSE curriculum and policy documents. Generally, when she spoke of any of these, she then immediately explained how they served to trigger her thinking concerning the adaptation of an idea or strategy for use with a particular student. Thus what she saw as relevant theory was quickly translated into practice.

Even those factors spoken of in a negative way, such as her undergraduate training and her teaching experience in her first school, contributed to her present professional excellence; the former because it was a prerequisite to her teaching and further training and the latter because it prompted a commitment to advocacy for students with special needs.

It is clear that, in this teacher's development of excellence, there is an interplay of many factors. It is also clear that there are some major contributors. Despite the many contributors referred to, when asked at the conclusion of the interview to summarise these, Teacher A spoke of one only. "I wanted to be an excellent special educator. Not just an educator. I wanted it as special ed. I wanted to make a difference."

Thus, although not previously stated, it is necessary to consider her motivation, an innate quality, as a major contributor to her excellence.

Teacher B

Teacher B worked in a special school in a large town near the coast. It was located in a residential area separate from other educational and community facilities. The school had 30 students, 5 to 18 years of age, with moderate and severe intellectual disabilities. Initially the teacher trained as a secondary home economics teacher and taught in this capacity for four years. She enjoyed this teaching but gradually came to the decision that her commitment was to students with disabilities. Although she acknowledged that having a cousin with a disability

sparked her lifelong interest in the field, her decision to be a special educator was comparatively recent. Three years prior to her participation in this interview she commenced a year of full-time postgraduate studies in special education, at the completion of which she commenced teaching at her present school. During her first year she taught young children. At the time of her interview, she had been teaching her class of secondary age students for almost 18 months

Teacher B was a young teacher (26 - 30 years) near the beginning of her career in special education. She would like to continue teaching students with moderate and severe intellectual disabilities for at least another 10 years eventually moving to an administrative position in special education. Being an avid learner she saw herself as an ongoing student and, at the time of the interview, was enrolled in further tertiary studies in education.

Most of the writer's two-day visit to Teacher B was spent in her classroom. The major exception to this was the whole school outdoor dancing/physical education activity which took place after morning recess on the second day. During this time Teacher B was responsible for working with the younger students and another teacher was assigned to her class. This was the only occasion, apart from the usual morning and lunchtime breaks in the staffroom, during which this teacher had professional contact with other teachers outside her own classroom. She did, however, have such contact within her classroom. Other teachers frequently visited her room in order to borrow from her large and well organised collection of resources. It appeared that her ability to collect and organise resources, as well as her knowledge of and willingness to lend these, was accepted as her particular role in the school.

The writer's dominant impressions of Teacher B were that she was highly organised, highly committed to her students and the concept of normalisation, was dedicated to learning using any source available, and that she knew at all times exactly what each student was doing and his/her educational needs. She exemplified the very quality she said was necessary in her students in relation to their vocational preparation, "To be successful in this they must have built up a stamina for work". The word "stamina" seemed particularly apt.

Her commitment to work was explained by Teacher B.

I value work and this is not a job to me. It's not just a job. It's not just the money. I'm here for a purpose and I like to see that purpose carried through. I value work. I value work in the kids and I think if we can build that up that leads to a much more productive life in post school which is so very important.

Her enthusiasm for learning led Teacher B to seek knowledge from a wide range of sources. Thus she had had a mentor within her school, had recently attended a major inservice course on transition education (eight weeks of two and a half hours per week) and several minor inservice courses, spoke of a network of peers who informally met and supported each other, sought advice from several others (including her very experienced teacher's aide) in her school and read journals. At this early stage of her special education career she had not sought individual assistance from senior educators outside her school, believing that "the experts are here in this school".

Although all of the above contributors to her development of excellence in special education teaching were mentioned, they did not feature in her conversation as frequently as did her experiences in special education teaching and her postgraduate studies in special education. The single major contributor to her development was experience but this, in the large number of competencies discussed (although not in all demonstrated instances of these competencies), was paired with, and built on, what she had earlier learnt in her postgraduate course. In fact her post graduate training was not referred to once without a statement of how this in some way related to later experience. In contrast, experience was mentioned four times, in relation to the development of a competency, without reference to her specialist course having made a contribution to the development of that competency.

Of the 18 NSW DSE competencies demonstrated in one or more ways, reference was made to experience in her discussion of the development of 16 of these. Examples of the small number of these in which there was no pairing with her postgraduate studies concerned Competency 2 (apply the principle of normalisation) were:

I think choice leads to independence and it's also very often a new experience for these students because their life has been predetermined for them and someone else has made the decisions for them ... I guess I didn't really think about giving choice until I came into special ed ... it was just the realisation that these kids if they were ever going to be able to make choices they had to learn ...

and in relation to Competency 6 (curriculum based assessment), "You send a kid off to get six plates and coming back with three - you think well how do I get around making sure that I get six plates."

However, in relation to the interview discussion about a demonstration of Competency 8 (choice of instructional strategies), there was a very clear progression of development starting with the postgraduate course and continuing through to classroom experience.

The foundation was laid once again through the course that I did. I wasn't aware of any of these sorts of teaching strategies until I'd done the course ... Finding the strategy and the level I found through trial and error.

This two-step process of development from training to experience was referred to several times. In discussing her work with parents and others as team members (Competency 13), Teacher B made a statement that encapsulates this developmental process. "I guess in the course you're told about it, but I don't think you really work out what it is and how it works and the benefit it is until you're actually doing it."

In a few cases this development included her mainstream teaching experience, especially as in her mainstream home economics classes she had students with special educational needs. The following statement refers to "the course" (her postgraduate special education studies) and her current studies in education (not special education but having an application and relation to this area of education). In tracing the development of Competency 4 (adapting curricula and applying DSE policies) she stated:

I think a lot of that initially goes back to the W ... days when I was working with, I guess they were really LD (learning difficulties) kids. Some of them would have been really IM (mild intellectual disability) but hadn't been formally classified and there were

documents around at that time which I had access to. That was further built on when I went into the course. And that's continued to be built on since I've been actually practising and even further now through the postgraduate studies.

This particular remark clearly demonstrates both a major theme in the story of Teacher B's development and, as well, her receptivity to learning from all available inputs.

Particular values and other personal characteristics were stated as having made an important contribution to the development of five competencies. In talking of her approach to behaviour management with her stress on social skills and appropriate behaviours (Competency 11), Teacher B explained her beliefs about the nature of disability (Competency 2). "So that comes back to my value that they are a child first with a disability second and disability is only an excuse."

In the discussion concerning Competency 11, Teacher B described a second nexus in terms of contributors to her professional development (the training-experience nexus being the major one). This was the three-way link of the intrinsic or personal characteristics contributor paired with postgraduate training and special education experience. It occurred in four of the 18 competencies. When asked about the development of her behaviour management strategies (Competency 11), she spoke initially about her personal values and beliefs, then about how, through experience, she learnt, "If I didn't stop it and stop it quickly then I had to go into crisis management." Finally she connected her development to her course, "Three words from the university course stick in my mind. Consistent, insistent and persistent and I try to do that all the time."

It is difficult to separate this teacher's intrinsic characteristics from the influences on her belief system developed through her childhood experiences. Her drive to work hard seemed an intrinsic characteristic but it was also encouraged by her father during her childhood. Further, she had long held a positive and respectful approach to people with disabilities. It is hard to know if this was first engendered by her aunt's positive approach to the social and education development of Teacher A's cousin (who had a disability) or whether such compassion and acceptance

were family characteristics she learnt at a very young age or whether it was a personality characteristic that was present at birth.

Unravelling all this goes beyond the purpose of this study. In the case of Teacher B it seems valuable to view together as the one contributor childhood experiences with what might be personality characteristics. If this is done then such a contributor is connected with the development of eight of the 18 demonstrated NSW DSE competencies. Although not as frequent a contributor as special education teaching experience nor postgraduate training, it must nevertheless be viewed as having considerable importance.

A fourth important contributor to her excellence in teaching concerns the part played by peers within the school setting. Such peers contributed to the development of six of the demonstrated competencies. Teacher B acknowledged the help of a teacher mentor. In her discussion of preventative behaviour management strategies (Competency 11), she stated:

I have to say that I've seen some excellent teachers in action at this school and you do pick things up from them. So it's not only come about by myself but I've seen others do it successfully as well. So there's a bit of experience a bit of peer tutoring, observation ...

She continued by further acknowledging the part played by this teacher who mentored her during her first year of special education teaching.

M ... has been my greatest help while I've been here. Whenever I got into difficulties last year and B ... (her teacher's aide) and I had trouble, generally as a team we went to M ... It's also been not only from the point of view of classroom management but from professional development as well.

Assistance by peers in her professional development has been, almost entirely, from peers within her school. Except for attendance at formal inservice courses run by DSE, help from peers in other schools was mentioned only once.

Several other contributors to Teacher B's development were mentioned in her responses to the questions about her demonstration of the particular

competencies. All of these appeared to play a comparatively minor role for they were mentioned infrequently. They included reading journal articles (three competencies), DSE inservice courses (two), DSE documents (two), mainstream teaching experience (two) and peers outside her school (one). Knowledge and understanding gained from all these contributors was, it appeared, always assessed in relation to her actual classroom teaching situation. Thus in explaining her emphasis on the development of student independence (Competency 7), Teacher B attributed her learning to a DSE transition education course that she had recently completed.

... it's really emphasised how much just much we have to prepare the kids while we have them at school for their post school life. I guess I never really thought about it as seriously until I became involved in that program and learnt more about that ... So that was my awakening.

Towards the end of the interview period the writer endeavoured to summarise the contributors to Teacher B's excellence in teaching. The writer listed all those factors mentioned above and then finally asked "Which would you see as the most important in getting you to the stage of your teaching progress and development that you're at now?"

Teacher B answered,

I think personality number one. If you're not cut out for it you wouldn't come back next day. I think that's really important. You're either meant for it or you're not and if you're not you shouldn't be in it.

The interview concluded with the writer asking about the importance that Teacher B placed on her mainstream teaching experience prior to her special education teaching. The response was "Personally I think it's essential", giving as her reason for this belief that without such experience it would be very difficult to know what "normal" was.

Teacher C

This teacher worked in a small special school in a Sydney (the capital of and largest city in NSW) suburb. The school was not attached to a mainstream school and was surrounded by suburban homes. The students, who ranged in age from 5 to 18 years, all had physical disabilities and some of them also had, as a secondary disability, an intellectual disability. Teacher C was a secondary teacher within the school and worked with a small group of senior students who were preparing for the Higher School Certificate (the public examination in the final school year). Some of the course work for these students was provided by the Distance Education Centre, a DSE school which provides educational programs for isolated and other students in need.

Teacher C commenced her teaching career in the late nineteen fifties after completing a two-year primary teacher training program in England. Her teaching experience was interrupted by child rearing responsibilities but it does span approaching thirty years, the last ten years of which have been in special education. She plans to continue teaching in her present setting until her retirement. Motivation to enter special education came from the experience of teaching students with disabilities in mainstream classes as well as through the challenge it appeared to present.

Four years ago Teacher C completed the upgrading of her two year teaching qualification to a four-year qualification (Bachelor of Education). This was not a special education qualification but did provide some opportunities for special education studies. Thus she completed three (of 12) special education units and was permitted to complete several assignments in other units by taking a special education perspective. She did not consider that these studies made a major contribution to her as a special educator. "I don't think that this added to my knowledge so much as reinforced what I already believed in."

In addition to her above studies, Teacher C completed the Learning Assistance Support Team (LAST) course. This is an extensive NSW DSE course aimed at developing more professional expertise in the area of the education of students, in mainstream classrooms, with learning difficulties. Teacher C believed that this course was of no value to her. Of considerably more value was the assistance she received from peers. This

assistance was most marked in her current school where the principal had taken on the role of mentor. Teacher C spoke very highly of the importance to her of this. She also spoke highly of the contribution the other teachers in this school have made to her continuing professional development. It would seem that this school's commitment to professional support and teamwork has been a major contributor to Teacher C's development of excellence in teaching.

During the two-day visit, the researcher was able to observe the teacher in the carrying out of all her teaching and other professional duties. Whilst most of this occurred in the classroom it did include the opportunity to be present at a meeting to discuss the educational future of one of Teacher C's students. The meeting was attended by the student, her mother and several involved professional workers. This provided the opportunity to observe the teacher demonstrating collaborative and parent support competencies which might not have been observed within the classroom.

Very little effort needed to be made, by the writer, to ensure that the teacher and all others at this school felt comfortable and relaxed with the researcher's presence. She was professionally known to the principal and had previously visited the school as a special educator visiting from another school. The sharing of information about mutual professional contacts and colleagues, as well as staff interest in this research project, quickly broke down any reserve that might have been felt. The interviewing process took place in several settings depending on their suitability and convenience at the time.

Nineteen of the 22 NSW DSE competencies were demonstrated by the teacher in one or more teaching or other professional segments. When these were discussed during the interview, it quickly became apparent that of her eight contributors to her professional excellence, two were of major importance. These were her experience in special education and her personal qualities. A common causal or sequential developmental pattern of these contributors, or of others, to excellence in teaching did not emerge. This is not to say that there were not many linkages between contributors to the individual competencies but, rather, that there were no general patterns of linkages. Experience and innate qualities were sometimes spoken of together concerning the development of a particular

competency, but either of these were just as frequently paired with another contributor.

Teacher C described her personal qualities as contributors to one or more demonstrations of 11 of the competencies. When asked about the developmental pathway of a particular teaching skill or strategy or an understanding that the researcher had observed, she very often made a statement such as "I think I've always had that". This occurred, for example, when she was questioned about her encouragement of the students' use of computers, "They're just, actually they are just normal human beings and they have a need to go the way all other human beings are going towards this technology." This gave the writer the opportunity to ask Teacher C about her valuing of the concept of normalisation (Competency 2). She replied, "I've always thought that. That children are ... children have a disability but they are not handicapped ... I feel very strongly about it."

On a few occasions there did seem to be a link between her innate qualities and her teaching experience. Teacher C described the efforts she made to change the attitudes (Competency 18) of a teacher in another school. "We've got to prepare those people to receive just as we've got to prepare these students to go out into that real world." When asked when this belief first started to develop, she stated, "Probably when I started in special education," and then she quickly corrected herself, "No, no I don't think it was a change in attitude. I think it was just increased awareness." This is one of the few cases, with this teacher, where there is a clear sense of one contributor building upon another.

At times her innate understandings seemed to have been built upon by logic, that is, a thinking process that confirmed what she had inherently believed to be right. Teacher C strongly believed in the appropriateness and benefits of teachers working together as a team. This sense of the rightness of strong collegiality and mutual support was stated with conviction on several occasions. Thus in speaking of Competency 13 (working in a team), she said, "I think the idea of working in a team has developed very strongly here at this school. But I can also see a logical need for it ... I've found something at this school that suits me very well."

The frequency of reference to personal characteristics and innate qualities is not surprising when Teacher C's early commitment to a career in teaching is considered. She spoke of teaching as her vocation and described her decision at a very young age to become a teacher. It can be conjectured that the very qualities that she possessed, that led her to this choice, are now major contributors to her excellence in teaching.

It is also not surprising that Teacher C credited her long experience in teaching, approaching three decades, as a major means of professional development. Her desire to learn, shown by numerous comments as well as by her recent upgrading of her qualifications, would suggest that she would see opportunities for learning in a whole range of experiences. All her references to experience as a contributor to learning are to special education experiences.

When questioned about the origin of her use of task analysis (Competency 8), Teacher C attributed this to experience. "No, I was never taught that. I think that was something that I just worked out that you must need to do. That if you can't do one step then you need to go back a step and go that way." Similarly Competency 22 (using efficient reporting procedures), demonstrated at the meeting previously mentioned, had its sole contributor in Teacher C's professional experience. "Yes, I would say it's something I learn through teaching" and "Probably I've learnt this form of recording and reporting at this school."

Although actually learning directly **from** her peers was mentioned in relation to only three of the competencies (3, 4 and 8), learning **with** her peers is referred to frequently in the context of working together. In these cases the researcher classified the contributor as experience but it should be noted that the experience was a shared one. It has already been noted that the ethos of the school encouraged this type of collegiality.

Teacher C is fortunate to have had the benefits of mentoring. Her mentor was the principal of her present school, a younger woman with whom she had a very close professional relationship. Such mentoring served to develop already embryonic skills. Thus although she was previously aware of the need to task analyse teaching objectives (Competency 8), it was not until she commenced teaching in her present school that, through mentoring, she learnt "the actual term" and "the system".

This teacher was proactive in her efforts to learn about DSE requirements concerning the School Certificate (examination at the end of Year 10) for non-academic students. Her interest and growing expertise in this area has resulted in her taking on a major role in her school in terms of the preparation of material for DSE accreditation. This led to her membership of the DSE Regional Transition Education Committee.

Her teaching practices were heavily influenced by both school and DSE policies and by DSE inservice courses. When asked about her close working relationship with her students' parents (Competency 10), she attributed this to both her school's policy and to encouragement through DSE documents. Her appointment to the above committee also developed her appreciation of the need for and benefits of parent involvement. This committee work necessitated close familiarisation with the relevant DSE documents and involved her in a DSE inservice course on the subject as well as the opportunity to learn from peers outside her school.

Teacher C felt it to be her responsibility to become fully aware of the other DSE documents and policies relevant to her teaching area. This has meant, for example, a search for information on child sexual assault (Competency 20) which has resulted in attendance at an inservice course, study of relevant documents and having an acknowledged expertise within her school.

In concluding the interview the writer summarised her understanding of the contributors mentioned and started with the part played by the teacher's personal characteristics, her professional experiences, DSE courses documents and committee work and then proceeded to talk about the teacher's peers. At this point Teacher C interrupted to agree and to speak about one particular person, her mentor.

... one particular person, one particular person has been very important in my development. Not only as a teacher but in developing my self esteem and confidence in myself which was fairly low, particularly after I left - I left for ten years to have children. I came back and it was fairly low and nothing really happened about that until I came to this school.

When asked about the part played by her undergraduate training, Teacher C pointed out the importance of this. "Probably the most significant thing would be my initial training. I think that was very significant but I tend

not to mention it so much simply because it was such a long time ago” and “I look back on my, it was only two year training, but I look back upon that as probably the turning point in my life. Because I wanted to teach when I went in and I was quite sure when I came out.”

When questioned about this mainstream training in relation to special education, Teacher C continued “I don't know but I still look upon it, back upon that as very valuable. And yet when I think about it I can't think of any particular strategy I was taught or it was just the general training of me as a person.” In these very broad terms then it cannot be argued that this training was anything but highly significant.

Whilst when asked Teacher C spoke of her recent upgrading of this two year training to (mainstream) four year status as “wonderful”, she did not convey the same enthusiasm as she had for her original training. “No, I really enjoyed doing it and I am so glad I left it as late as I did. Some people might say I left it a little bit late but I'm glad I did it as late as I did.”

Thus there was a whole range of factors all of which had richly contributed to the excellence of Teacher C as a special educator. Experience in special education teaching was mentioned in relation to more of the DSE competencies than were other contributors.

Teacher D

Teacher D was responsible for a class of six preschool (aged three to five years) children, all of whom had a severe hearing impairment. No other family member had such an impairment. His classroom was an isolated one within the grounds of an average size primary school in Sydney. The students had a preschool type play area adjoining their classroom and this was fenced off from the playground of the older children. Despite this apparent segregation, there was much two-way teacher and student interaction. Mainstream teachers and their older students had supervisory and other duties within the preschool setting. Both the students with special needs and their teacher visited the mainstream areas on one or more occasions daily. Teacher D, despite the fact that he had students who were not yet of school age, was very much a staff member of the primary school. The school had a primary class of students with

severe hearing impairment and it was usual for the preschool children to move on to this class or even a mainstream class where they would be able to receive itinerant support.

The program was a preschool one with emphasis on learning through play. Although this play appeared to be *free*, it was, in fact, designed so that each child's learning needs were met and closely monitored. The approach was oral communication taking advantage of whatever hearing a particular child had. A feature of the program was the weekly session with one or both parents. Teacher D demonstrated teaching techniques and the parents practised these with their child under the teacher's supervision. The session was videoed for later parent referral. Other close contact with the parents was maintained.

Initially Teacher D trained in early childhood. Although planning to become a mainstream teacher, he completed a major in special education in his mainstream undergraduate course. He taught in a variety of mainstream settings in both preschool (children of three to five years) and kindergarten (children of five to six years) classes. After four years of such teaching, with his interest becoming increasingly focussed, he decided to take up the challenge of special education. He completed a year of full-time postgraduate study in teaching students with hearing impairment. Teacher D would like to remain as a teacher of these children until he retires. Being now in the age range, 31 to 40 years, he has many years ahead of him as a special education classroom teacher.

The writer and the teacher had not met before but quickly established that they had several friends and professional contacts in common. Their mutual interest in children's oral language development also assisted in establishing a rapport and trust. That this was effectively established was shown by the fact that on the second day, when Teacher D was unexpectedly called away for over half an hour, he assumed that the writer would continue the lesson in his absence. This she did. Thus the relationship was a collegial one. The interview took place in a variety of settings, as convenient at the time. This included the principal's office.

Even though the children in Teacher D's class were young and had a disability, the setting was characterised by active learning, a pleasant but low buzz of noise and by each child's mature consideration for the other

students. There were frequent visits by parents, teachers and members of other professions.

Fifteen of the 22 NSW DSE competencies were demonstrated during the two-day visit. When asked about the development of the manifestations of each of these competencies, the major pattern that emerged was that there was a large number of contributors to the development of most of the competencies. A secondary pattern was that the contributors were not isolated and sequential but rather that they were interwoven building on and influencing each. When examining the contributors to many of the competencies, it was difficult to discern a clear developmental path. It was also difficult to extract what might have been the most important contributor. Like the cards in a house of cards they all played their part, they built upon each other and all were essential in the development of the particular level of a given competency that Teacher D had reached.

This was most marked in three of the competencies (4, 6 and 7), all of which are elements of the first of the NSW DSE unit, Delivery and Analysis of Service. Competencies 4 and 7 had seven contributors whilst Competency 6 had six contributors. There is a strong similarity between the contributors to the three different competencies (postgraduate training, experience in special education, personal qualities, inservice course, help from peers). It is interesting to note that at one stage Teacher D, when asked how he developed a particular demonstrated skill, said "I don't know". It appeared to the writer that he, on reflection, was becoming aware of the interrelatedness and number of the contributors and, just for a short while, found it just too difficult to sort out.

It is also interesting to note that Competency 5 (make decisions using information from other support personnel and use reports), although one aspect of the above programming unit, was not demonstrated or referred to during the two-day visit. This competency suggests a formality of reporting with information-giving being a one-way process. In contrast, Competency 3 (locate and access a range of support services in the community), which suggests the possibility of a less formal and more interactive contact, was referred to several times.

By far the most frequently discussed contributor across the demonstrated competencies was experience. This included mainstream teaching

experience prior to entering special education (mentioned in relation to five competencies), and special education teaching experience (mentioned in relation to 12 competencies). Experience was not mentioned in relation to only two of the demonstrated competencies. Often the two types of experience, mainstream and special education, were paired. Thus, in speaking of the importance of recognising the educational role of the parents and the home environment, and the need for parent participation (Competency 10), Teacher D described how he involved parents in his early teaching and how later, in special education, it became even more important.

That was a mainstream program for preschool and kindergarten children. And so that was sort of where I started to see that, you know, there's more to this teaching business than just what happens in the classroom. And once I got into special education, you know, it's just blatantly obvious that that's what you need to do.

The “mainstream program” he referred to was one he learnt about in his undergraduate training, which he then, as a result of the above experiences, built upon. It could also be argued that, within his quoted explanation, there is a sense of logic, that is, a personal characteristic, that led him to a certain conclusion which may not have been reached by someone without this characteristic. How teachers use and build upon their experiences is, of course, a very individual process dependent on their own personalities. Such conjecturing concerning the role and influence of personality is outside this study. As stated in the introduction to these Stage 2 findings, only when a teacher clearly states that the development of a competency was due to, or aided by, a personal or intrinsic characteristic, is this attribution made.

Mainstream teaching experience and special education teaching experience were discussed as contributors to Competency 11 (use of research based preventative behaviour strategies), but in this case as contributors to separate strategies within this competency. Teacher D explained that it was during his mainstream teaching that he learnt that teachers should focus on positive behaviours. “When you start to focus on the negatives too much then you're only going to get the negatives.”

Special education teaching experience contributed to his current use of time-out and the use of choice. When questioned about his use of these (they were used in conjunction with each other), he explained:

I think it's evolved in my time here I think. And it's amazing when you give the kids that choice, I mean, they know what they want to do and it starts to reinforce this notion of, Well, I have a choice. I'm the one who makes this decision. I'm the one who'll wear the consequences of that decision about my behaviour.

One of the most revealing examples of Teacher D's openness to learning from any source was shown in his several comments that the students had taught him. When, for instance, the researcher asked him about where he got his strategy of using modelling (Competency 8, use of research-based instructional strategies), he simply replied, "The kids, I guess". On another occasion, when asked about where he got the idea concerning the use of methods to maximise independence, he replied, "From the kids". Thus Teacher D used the experiences of observing the students' behaviours to develop further his own teaching excellence.

When the contribution to the development of competencies by professional colleagues based outside his school (three competencies) is combined with that of colleagues within his school (four competencies), the total number of competencies contributed to by association with any professional peers is seven. This general area of peer assistance in his development of professional excellence must also be considered to be of importance.

Whilst experience is the contributor to the largest number of Teacher D's professional competencies, there are several other important contributors. Of equal importance, in that they all contributed to the development of five of the 22 competencies, are personal characteristics, postgraduate training and inservice courses.

Teacher E

This teacher worked in a special school for students with conduct disorders, aged 10 to 18 years. They had each been charged with a criminal offence. These students were in the remand section of a Juvenile Justice facility, that is, they were awaiting sentencing and their move to the detention section of the same facility. Although run by the

Department of Corrective Services, the section had a school staffed by the NSW DSE. In order to attend for the two-day observation and interview visit the writer had to obtain a special clearance.

Although there are several such facilities in NSW, in the interests of confidentiality, further details concerning its location, the students and the teacher's subject area will not be stated.

The nature of these special schools means that some of the NSW DSE listed competencies are not relevant or are relevant in a restricted way only. Thus, for example, ensuring that parents and students are provided with information and strategies concerning their rights (Competency 17) is, in relation to the students, an important part of each teacher's role, but the teachers do not have any contact with the parents. This restriction also applies to Competency 10 (active involvement of parents and students in IEPs) as it concerns parents. The demonstration of those competencies relating to behaviour management (Competencies 9 and 11) was influenced by the presence, in each classroom and other school areas, of a Juvenile Justice Officer whose role was to intervene if unacceptable behaviour escalated.

One of the major characteristics of this school, and others like it, was that there was a high degree of uncertainty from day-to-day about which students would be present the following day and, in fact, how long each student would be attending the school. The enrolment period ranged from a few days to some months. This meant that there was often little point in the development of long term IEPs. Programs could be passed on to the detention section of the facility (the one school principal was in charge of both DSE sections) but as the period of staying there would be unknown, and the student's educational future problematic, long term programs were not planned in the detail that is characteristic of other special education settings.

This type of school was unique in several ways which might explain the writer's sense that the school was unusually inward looking. There were, of course, no excursions, usually an important part of programs in special education in terms of the focus on integration, normalisation and preparation for adult life. Although the school was well equipped and maintained and the setting was as attractive as is possible, and although

the school staff members had been appointed because of their genuine and caring interest in the wellbeing and education of these students, an air of anxiety and tension permeated the setting. Most of the students had a long history of family dysfunction and other stresses and all were awaiting their sentencing. It was inevitable that at times the situation was volatile.

Teacher E had worked on a permanent part-time (three days per week) basis for the last 11 years. Family responsibilities occupied the other two days. This was the only special education position that she had held. The main reason that she gave for entering special education was that she did this "by chance". Her secondary reason was that she saw special education as a challenge. She was in the age range of 31-40 and planned to remain in this field for another 10 years and then seek other employment. Teacher E's main school-wide role was that she was responsible for the liaison between the teaching staff and the residential staff in the remand section of the facility, concerning the students' needs, behaviours and stresses.

In order to cope with this, it seemed to the writer that the teachers in the school were very supportive of each other but that they did not seek support from other special educators outside their school. There was not a similar institution within an easy travel distance from this school. Teacher E did not belong to any special education associations or less formal professional groups, did not regularly attend inservice courses, did not read professional literature and did not express interest in undertaking study in special education.

The writer is not in a position to know if all this is attributable to Teacher E's personal characteristics, and hence would have been present if she had been employed in another special education teaching position, or whether the above was linked to the particular educational setting. The characteristics did seem to be shared, at least to some extent, by her colleagues. This impression was gained during staffroom morning tea and lunch breaks. Teacher E to some extent explained this, "Our past principal, P... was good at, you know, sort of, saying we should, he got us to do things as a staff, staff together, rather than individual people going out and doing things. We did things as a staff."

There were six contributors to Teacher E's excellence in teaching. These were personal characteristics, undergraduate training, experience in special education, inservice course (taken by Juvenile Justice), peers within her school and a colleague outside her school. The path of Teacher E's development of professional excellence appeared clear and comparatively simple. The role of the various contributors seems, for the most part, to be linear, rather than interrelated. In the development of six of the competencies Teacher E considered that there was only one contributor. In another five there were two contributors and in the remaining three competencies Teacher E spoke of three or four contributors. Their contribution appears, generally, to be discrete, the historically later ones building on the former, but not in an interrelated way. They will, therefore, be discussed in their chronological sequence.

Teacher E's intrinsic characteristics, as they contributed to her development of professional excellence, will be discussed first. Her own personal belief/value system underlaid her understanding about special needs (Competency 1), the principles of normalisation (Competency 2), the maximisation of independence (Competency 7) and ensured that she managed her resources in an efficient manner (Competency 21). In explaining her endeavours to remind her students about the "normal outside" world (Competency 2) through chatting about her family Teacher E replied:

Writer: Yes, so you have always done that or is that something you've just ...?

Teacher E: Yeah, I think that's personality.

Writer: Right.

Teacher E: Chatting. I come from a family of chatterers.

In all cases where intrinsic factors were cited as making a contribution to her development, experience was cited as a co-contributor. The part played by experience is described below.

This teacher spoke positively about her undergraduate training (to be a mainstream secondary teacher), attributing it to the development of four competencies. Her undergraduate training (both the lectures and one of

her practicums in a special school for students with an intellectual disability) provided a base for later learning through experience. In discussing the importance of normalisation (Competency 2), she referred to her lectures and then to her practicum.

At Teachers College I did a unit on ... and, yeah, we touched on it then, and I went to C ... which is a school for handicapped children and spent, I think, a month there, which I really enjoyed but I felt so sad all the time as well. And I didn't feel very capable because my sadness sort of took over ...

Later experiences in her present school lifted this sadness and she was more optimistic about her students' "normal" future.

Teacher E credited her undergraduate training as the basis for her ability to use research based instructional strategies, specifically task analysis (Competency 8).

I think breaking it down into small steps is training and I don't know if you know, sort of, in what other subjects that comes out, but definitely in ... Training to teach kids in ... you have to break it down into the simpler steps.

Peers within the school played an important role in Teacher E's learning, contributing to the development of three competencies. The sharing of information about the students, in which Teacher E had an important official role (explained previously), was regular and ongoing. The situation probably necessitated this more than most other special education settings do. This sharing also related to teaching skills and strategies. In her discussion of the contributors to Competency 22 (use of efficient reporting procedures) and Competency 13 (working in a team) Teacher E stressed both how this sharing was done and how the information influenced her use of teaching and management strategies. She stated,

... that all comes out in the staff room. We all talk about the students and what this person is like ... When you're friends with ... the people you work with, then you're more likely to be able to access more information ...

In reply to a question about regular staff meetings for the sharing of information and decisions about strategies, Teacher E said, "... that

happens just about every week at the moment ... so we're constantly sitting down and talking about that as a staff."

Many of the above discussions also involved the Juvenile Justice staff and youth workers, who were required to be present throughout the school. Their presence was so constant that, although they were employed by a different government department to that of the teachers, they were, in fact, school peers in this particular setting.

Of particular importance was the part played by her school peers in relation to Teacher E's knowledge about the students' legal rights and, through this, her ability to pass on this information to her students. "I can access it through lots of other people here and that's probably the best way that I do it for all of my students. I access it from other people."

Inservice courses, in contrast to those held for other teachers, were all given within the school, several having been taken by the previous principal, especially those concerning behaviour management and the writing of the school discipline code (Competency 11). One only, that she referred to, was taken by an outside teacher who came into the school. The most extensive in-school course that Teacher E attended was a compulsory interdisciplinary six week course held by Juvenile Justice. This was the basis for Teacher E's development of knowledge of and skills in child protection (Competency 20). She described the course as "wonderful".

By far the most frequently mentioned contributor was her professional experience. In the development of the 14 competencies observed by the researcher, Teacher E credited her teaching experience in special education (that is, her present position as this has been her only teaching in special education) as a contributor to 13 of these. Special education experience was the sole contributor to the development of five competencies. With another five competencies it was paired with one other contributor. The remaining three competencies (of the 13 referred above) had two or three co-contributors. One pattern that emerged was the holding of a belief that was then developed through professional experience. Examples of this have already been mentioned in the discussion of the part played by her personal characteristics. Another pattern was the complementary part played by experience and an

inservice course. This applied, for example, to her development of Competency 20 (child protection), with the inservice course confirming and adding to what she was learning through experience. A similar relationship was described in terms of the parts played in her development by her peers and her experiences.

Three major aspects of Teacher E's development are clear. Firstly, her experience at her present school, in Teacher E's own words, was "absolutely number one" as a contributor to her professional excellence. Secondly, several aspects of Teacher E's personality ensured that some of the 22 competencies were readily learnt or already in place. Finally, almost all her learning took place in her present school where she has benefited considerably from interactions with her peers and from inservice courses, most of which were run by her peers (Juvenile Justice staff regarded as peers).

Integration and comparisons of the five case studies

Following the analysis of the individual case studies and the search for individual patterns and linkages an overall examination of the five studies was made in order to determine pervading themes and patterns of the contributors to excellence in special education teaching as well as individual differences and discrepancies.

This section of the report on the Stage 2 findings describes a process of building an understanding, through various analytic procedures, of the competency/contributor relationship. The step-by-step process results in a final statement concerning the strength of association between the competencies and their contributors as perceived by the five teachers.

Demographic information, or base data, has already been woven into the individual discussions of the five teachers. Table 7.1 allows comparisons between the teachers. NSW DSE special education support and class abbreviations have been explained in Chapter 1.

Table 7.1

Base data of the five teachers

| Teacher | Gender | Age | Main-stream experience | Highest training | Special education experience | School Class | Major reason for entry to special ed | Future plans |
|---------|--------|-------|------------------------|-----------------------------------|------------------------------|--------------|--------------------------------------|--------------------------------------|
| A | F | 41-50 | 0 years | Postgraduate in special education | >10 years | IM/IO | Challenge | Retire in special education |
| B | F | 26-30 | 2-5 years | Postgraduate in special education | 1-2 years | IS | Challenge | Administrati on in special education |
| C | F | 51-60 | >10 years | Bachelor of Education, inservice | >10 years | P | Challenge | Retire in special education |
| S | M | 31-40 | 2-5 years | Postgraduate in special education | 3-5 years | H | Challenge | Retire in special education |
| E | F | 31-40 | 2-5 years | Undergraduate | 6-10 years | CD | Chance | Other employment |

As expected not all of the 22 NSW DSE competencies were demonstrated over the two-day observation/interview period with each of the teachers. The writer chose to observe in the natural professional situation and not to seek to manipulate artificially a teaching situation or introduce in discussion any competency that had not been either demonstrated by the teacher in some way or raised in discussion by that teacher. The competencies, either demonstrated or referred to by each teacher, are shown in the following table.

Table 7.2

The individual teacher's demonstrations of the various competencies

| Competency | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | |
|------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|---|
| * A | √ | √ | √ | √ | | √ | √ | √ | √ | √ | √ | √ | √ | √ | | | | √ | √ | √ | | | |
| B | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| C | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| D | | √ | √ | √ | | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | | | | | √ | |
| E | √ | √ | | √ | | √ | √ | √ | | √ | √ | | √ | √ | | | √ | | | | √ | √ | √ |

*Teacher A, B, C, D, E.

All of the competencies were demonstrated by one or more of the teachers. The majority of competencies were demonstrated by most of the teachers. Seven were demonstrated by all the teachers and a further six by four of the teachers. This meant that 80% of the teachers demonstrated the same 60% of competencies (as well as a number of other competencies) over the two-day writer visit.

The competencies that were most frequently observed concerned those involved with daily classroom practice. A few competencies do not normally occur on a daily basis, for example, writing formal reports (Competency 22) and using formal reports (Competency 5) are usually regular occurrences in special education but they are not frequent. Other competencies relate more closely to some special education situations than they do to others. Examples of this have already been discussed concerning Teacher E and her particular situation.

The individual teacher's demonstrations of the competencies and their attributions of the various contributors are shown in the following table. Abbreviations, such as "ug", have been explained in Chapter 1.

Table 7.3 Matrix showing individual teacher's attributions of contributors to competencies

| COMPETENCY | Contributor | | | | | | | | | | | | | | | | | | | | | | competencies associated with the contributor |
|------------------------------|-------------|----------|----------|----------|---|----------|----------|---------|---------|---------|---------------|---------|----------|----------|----|----|----|---------|----|---------|----------|----|--|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | |
| 1 childhood A,B,C,D,E | A | AB | - | - | - | D | A | B | - | - | - | - | - | - | - | - | - | B | - | - | - | - | 6 |
| 2 intrinsic A,B,C,D,E | BC | BC E | AB D | AC D | C | D | AC DE | BE | A | - | A | AC D | C | AC | B | D | C | AB C | C | D | CE | - | 20 |
| 3 ug training A,B,C,D,E | - | E | A | A | - | - | - | CE | A | D | AD | C | C | C | - | - | - | - | - | D | - | - | 11 |
| 4 mexp B,C,D,E | - | - | - | B | B | - | - | B | - | D | B D | - | - | - | B | D | D | - | - | D | D | - | 10 |
| 5 pg training A,B,D | AB | A | A | A | - | B | A | A | A | A B | A B | B | - | - | B | - | - | AB | B | D | - | - | 16 |
| 6 seep A,B,C,D,E | BE | AB DE | AB CD | AB DE | C | BC DE | AB DE | BC E | AB D | AB E | AB CD E | BC E | AC DE | AC DE | BD | BD | BD | AB C | AB | AE | BC DE | CE | 21 |
| 7 peers A,B,C,D,E | - | AB | B | BC DE | - | A | BD | ED | - | - | B | - | BE | - | B | - | E | AC | - | D | D | E | 14 |
| 8 outside peers A,B,C,D,E | - | - | B | AD | - | D | A | AD | D | AC | - | - | E | - | - | - | - | A | - | D | - | - | 10 |
| 9 in service A,B,C,D,E | - | - | AC | AC D | C | D | BD | A | AD | D | AB E | A | E | - | B | - | - | C | - | CD E | - | C | 15 |
| 10 DSE docs A,B,C,D,E | - | - | - | AB CD | - | D | AB C | AD | D | C | A | - | - | - | - | - | - | A | - | C | - | - | 9 |
| 11 reading A,B,C,D,E | A | - | B | - | - | - | AB | BC | - | - | - | C | C | C | - | D | - | - | - | - | - | - | 8 |
| 12 associations A,B,C,D,E | - | D | - | - | - | - | D | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| 13 confereres A,B,C,D,E | - | AD | - | - | - | - | - | - | - | A | - | A | - | A | - | - | - | - | - | - | - | - | 4 |
| No of teachers | 4 | 5 | 4 | 5 | 2 | 5 | 5 | 5 | 3 | 5 | 5 | 4 | 3 | 4 | 2 | 1 | 4 | 3 | 3 | 4 | 4 | 2 | |

Some caution needs to be exercised when interpreting the above table. There are some restrictions to directly and simply comparing the numbers of teachers. The following should be taken into account.

- Each teacher demonstrated only some of the 22 competencies.
- Not all contributors were able to be accessed by all the teachers.

These two points are further explained.

Firstly, the total number of teachers who demonstrated a particular competency is stated on the bottom row of the matrix. This shows, for example, that four teachers demonstrated Competency 1 and five teachers demonstrated Competency 2.

Secondly, the five teachers did not have equal access to each contributor. Three only had completed postgraduate training in special education and four only, of the five teachers, had had experience in mainstream teaching. In order to allow visual comparisons between rows, and thus the amount of individual contributor usage, the left-hand column shows the teachers with access to that contributor.

In the case of special education teaching experience the age differences between the teachers (26-30 years to 51-60 years) did mean a degree of difference concerning accessibility but all teachers did have some access to this contributor. Access to the other contributors, for example, inservice courses, reading, peers in their school may well have also been uneven. For the purposes of this research it can only be assumed that opportunities were fairly evenly distributed. It may also be reasonable to assume that excellent teachers, as these all were, are proactive in accessing whatever they consider to be of value in their professional development. If this is so it can be assumed that contributors infrequently accessed were not regarded highly as a means of professional development.

The one possible exception to this is postgraduate training which may be difficult for some with heavy family and other commitments. Whilst no judgments can be made here about the difficulties of access to such training by the two teachers who had not undertaken postgraduate training, it should be pointed out that the NSW DSE provides full salary, full-time sponsorships for teachers in similar positions to Teachers C and E and that, in fact, Teacher A with a young family and living in a country

s completed her training through a two year external course (with residential requirements) which was unfunded.

The right hand column of Table 7.3 shows the number of competencies associated with each of the 13 contributors. The following table places these in rank order.

Table 7.4
Rank order of the number of DSE competencies related to each professional contributor

| Contributors | Total number of competencies |
|---------------------------------|------------------------------|
| 1. special education experience | 21 |
| 2. personal characteristics | 20 |
| 3. postgraduate training | 16 |
| 4. DSE inservice courses | 15 |
| 5. peers in school | 14 |
| 6. undergraduate training | 11 |
| 7. outside colleagues | 10 |
| 7. mainstream experience | 10 |
| 9. DSE documents | 9 |
| 10. professional reading | 8 |
| 11. childhood | 6 |
| 12. conferences (not DSE) | 4 |
| 13. formal associations | 2 |

This table shows that experience in special education teaching contributed to the development of more competencies than did any of the other contributors identified by the five teachers. In fact, it contributed to the development of all but one of the competencies. Personal characteristics, however, with its second ranking must also be regarded as a major contributor. Postgraduate training, DSE inservice courses and peers in the teachers' schools were also perceived by the teachers as making a contribution to a large number of competencies. Of considerably less importance in that they contributed to the development of very few competencies was childhood experiences, conferences (not DSE) and membership of formal associations.

Table 7.4, however, does not give an indication of the relevant strength in terms of the number of teachers who accessed each contributor. To be included in the table any number of the teachers (from one only to all five) must have attributed his/her/their development of a particular competency to a particular contributor. Thus the relative strength of each contributor as indicated by the number of teachers who attributed it is not shown in Table 7.4.

An attempt to redress this is made in Table 7.5. It uses the data contained in Table 7.3. The number of times each cell was used for each of the contributors (as shown in Table 7.3), compared with the maximum number of potential usage, was expressed as a percentage. Thus Contributor 1, "Childhood", a contributor that all five teachers could access had a maximum potential usage of 110 (22 competencies multiplied by five teachers). It was, in fact, accessed seven times (1+2+1+1+1+1). This usage can be expressed as 6.36% of potential usage ($7/110 \times 100$). Two of the contributors (mainstream experience and postgraduate training) did not have the potential usage of 110, their potential usage being 88 and 66 respectively. This consideration of maximum potential usage allows comparison for ranking purposes.

Table 7.5
Rank order of contributor usage by the five teachers

| Contributor | Percentage of potential usage |
|---|-------------------------------|
| 1. teaching experience in special education | 59.09% |
| 2. postgraduate special education studies | 46.96% |
| 3. personal characteristics | 33.63% |
| 4. DSE inservice courses | 21.81% |
| 5. peers in same school | 19.09% |
| 6. DSE documents | 13.63% |
| 7. Mainstream experience | 12.5% |
| 8. outside colleagues | 11.81% |
| 8. undergraduate training | 11.81% |
| 10. own reading | 9.09% |
| 11. childhood | 6.36% |
| 12. formal association membership | 4.54% |
| 13. formal conference attendance (not DSE) | 1.81% |

In terms of this type of ranking of the five teachers' use of the contributors, teaching experience in special education is the most common contributor to professional excellence. Postgraduate training in special education and personal characteristics must also be regarded as important contributors. Of importance, but considerably less importance, are the contributions made by inservice courses and peers in the same school. The remaining seven contributors are of limited significance in this type of ranking.

There are some small differences in the rankings of Table 7.4 and Table 7.5. Both, however, place professional experience in special education as the prime contributor to excellence in special education teaching. In comparing these rankings it should be remembered that they have different bases. Table 7.4 examines the relative strengths of the contributors in relation to the number of competencies they were linked with by the teachers: Table 7.5 gives weighting to the number of teachers who attributed their development of the competencies to the various contributors.

Whilst Table 7.5 includes more aspects of the research phenomena (includes the number of teachers accessing each contributor in relation to the total amount of access potential), it contains an underlying assumption that does not pertain equally to all of the competencies. It assumes that all of the competencies were demonstrated by all of the teachers. This was not so. Most of the competencies were demonstrated by most of the teachers but not by all. It has already been stated that 80% of the teachers demonstrated 60% of the competencies. The individual teacher's pattern of usage is shown in both Tables 7.2 and 7.3. It is necessary to give a basis for equal comparison of the usage of the contributors (in fact, a "level playing field"). This means that not only must the number of teachers attributing each contributor and the individual teacher's access to all the contributors be considered but this must be viewed in the light of the actual competencies they demonstrated. It has already been explained why it is unrealistic to expect to have seen demonstrations of all of the 22 competencies by all of the five teachers during the visits. Some were demonstrated by all five teachers and some were not. If this fact is not taken into account then any comparison of the relative strength of attribution of the contributors to professional development is distorted.

The following formula provides a means of equal comparison of contributors. Use is made of three symbols:

- x = all those who had access to the particular contributor (shown in column 1, Table 7.3);
- y = the number of teachers who demonstrated the particular competency (shown in the last row of Table 7.3);
- z = attributed that contributor (in x) to the development of that competency (in y).

The formula to be applied is:

Number of teachers who x & y & z : Number of teachers who x & y

and this is expressed as a percentage.

Note: "&" does not refer to addition but to inclusion.

Expressed in simple terms the formula means *all those who did* (use the contributor to develop the competency) *compared with all those who could have* (demonstrated the competency and had access to the contributor).

The following are three examples of the application of this formula. The examples use the information contained in Table 7.3.

- (i) In examining cell competency 4/contributor 5

$$x = 3$$

$$y = 3$$

$$z = 3$$

So, applying the formula:

$$3 : 3 = 100\%$$

- (ii) In examining cell competency 6/contributor 6

$$x = 5$$

$$y = 5$$

$$z = 4$$

So, applying the formula:

$$4 : 5 = 80\%$$

(iii) In examining competency 11/contributor 4

$$x = 4$$

$$y = 4$$

$$z = 2$$

So, applying the formula:

$$2 : 4 = 50\%$$

The above formula was used to compute the index figures in the competency/contributor matrix of Table 7.6. These percentages of contributor usage (along the rows) were totalled and then divided by the number of the competencies the contributor was associated with. In all but one type of contributor all contributors could have been accessed by at least one teacher (who demonstrated the particular competency) in the development of each of the competencies. Postgraduate training, however, could have been accessed by only three of the five teachers: none of these three teachers demonstrated Competency 22. For this competency alone division is by 21.

Thus the last column shows the index of mean use of each contributor to the development of the set of the 22 competencies.

Table 7.6 Distribution of each contributor to the development of each competency

| COMPETENCY CONTRIBUTOR | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | INDEX* |
|---------------------------|-----|-----|-----|-----|----|----|-----|-----|-----|----|-----|-----|-----|-----|----|-----|-----|-----|----|----|-----|-----|---------------------------|
| 1 childhood (5) | 25 | 40 | 0 | 0 | 0 | 20 | 20 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 0 | 0 | 0 | 0 | $\frac{158}{22} = 7.18$ |
| 2 intrinsic (5) | 50 | 60 | 75 | 60 | 50 | 85 | 85 | 40 | 33 | 0 | 20 | 75 | 33 | 50 | 50 | 100 | 25 | 100 | 33 | 25 | 50 | 0 | $\frac{1089}{22} = 49.5$ |
| 3 up training (5) | 0 | 20 | 25 | 20 | 0 | 0 | 0 | 40 | 33 | 20 | 40 | 25 | 33 | 25 | 0 | 0 | 0 | 0 | 0 | 25 | 0 | 0 | $\frac{306}{22} = 13.91$ |
| 4 mexp (4) | 0 | 0 | 0 | 25 | 50 | 0 | 0 | 25 | 0 | 25 | 50 | 0 | 0 | 0 | 50 | 100 | 25 | 0 | 0 | 33 | 25 | 0 | $\frac{408}{22} = 18.56$ |
| 5 pgr training (3) | 100 | 100 | 67 | 100 | 0 | 67 | 100 | 100 | 67 | 67 | 67 | 33 | 100 | 0 | 50 | 0 | 0 | 100 | 50 | 50 | 0 | 0 | $\frac{1218}{21} = 58$ |
| 6 seep (5) | 50 | 80 | 100 | 80 | 50 | 80 | 80 | 60 | 100 | 60 | 100 | 100 | 100 | 100 | 0 | 50 | 100 | 67 | 0 | 50 | 100 | 100 | $\frac{1707}{22} = 77.59$ |
| 7 peers (5) | 0 | 40 | 25 | 80 | 0 | 20 | 40 | 40 | 0 | 0 | 20 | 0 | 67 | 0 | 50 | 0 | 25 | 67 | 0 | 25 | 25 | 50 | $\frac{574}{22} = 26.09$ |
| 8 outside peers (5) | 0 | 0 | 25 | 40 | 0 | 20 | 20 | 40 | 33 | 40 | 0 | 0 | 33 | 0 | 0 | 0 | 0 | 33 | 0 | 25 | 0 | 0 | $\frac{309}{22} = 14.05$ |
| 9 in service (5) | 0 | 0 | 50 | 60 | 20 | 20 | 40 | 20 | 67 | 20 | 60 | 25 | 33 | 0 | 50 | 0 | 0 | 33 | 0 | 75 | 0 | 50 | $\frac{653}{22} = 29.69$ |
| 10 DSE docs (5) | 0 | 0 | 0 | 80 | 0 | 20 | 60 | 40 | 33 | 20 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 0 | 25 | 0 | 0 | $\frac{331}{22} = 15.05$ |
| 11 reading (5) | 25 | 0 | 25 | 0 | 0 | 0 | 40 | 40 | 0 | 0 | 0 | 25 | 33 | 25 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | $\frac{313}{22} = 14.23$ |
| 12 associations (5) | 0 | 20 | 0 | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $\frac{40}{22} = 1.82$ |
| 13 conferenes (5) | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 0 | 25 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $\frac{110}{22} = 5.00$ |
| No. of teachers | 4 | 5 | 4 | 5 | 2 | 5 | 5 | 5 | 3 | 5 | 5 | 4 | 3 | 4 | 2 | 1 | 4 | 3 | 3 | 4 | 4 | 2 | |

* Index of mean use of each contributor to the development of the set of 22 competencies

The figures in the final column of Table 7.6 can now be used to tabulate the rank order of contributor usage by those who had access to them. This is shown in Table 7.7 below. This ranking of indices has taken into account any inequities of usage and access and so is a valid presentation of the way these five teachers perceived the importance of the various contributors that they had identified in their development of the 22 NSW DSE competencies. It presents in numerical form a summary view of the findings of the qualitative study of the research phenomena.

Table 7.7
Rank order of total contributor usage

| Contributors | Index of use | Rank order of use |
|--------------------------|--------------|-------------------|
| se experience | 77.59 | 1 |
| pg training | 58.00 | 2 |
| personal characteristics | 49.50 | 3 |
| DSE inservice | 29.69 | 4 |
| peers in school | 26.09 | 5 |
| m experience | 18.56 | 6 |
| DSE documents | 15.05 | 7 |
| own reading | 14.23 | 8 |
| outside colleagues | 14.05 | 9 |
| ug training | 13.91 | 10 |
| childhood | 7.18 | 11 |
| conferences (not DSE) | 5.00 | 12 |
| associations | 1.82 | 13 |

The five teachers who participated in the case studies regarded special education teaching experience as the most useful factor in the development of their excellence in those competencies that the writer observed or was told about by the teachers. The weighting given to special education teaching experience by the teachers is considerably more than that given to the next most commonly ascribed contributor, postgraduate training.

The above two contributors are followed by several contributors of importance, particularly personal characteristics, DSE inservice programs, peers within the individual teacher's school and mainstream teaching experience. The remaining contributors are of little, or negligible,

importance and were used in the development of a limited number of competencies and/or by very few teachers.

Summary

A large number of contributors featured in the professional development of the five excellent special educators. The stories of their professional development were varied. There was, however, strong agreement concerning the relative part played by the different contributors. Three of these dominated, that is, special education experience, postgraduate training and personal characteristics. When differences concerning access to and demonstration of the competencies is accounted for, experience in special education proved to be very clearly the dominant contributor to the professional development of the five excellent special educators. It was followed by postgraduate training and personal characteristics. The remaining eight contributors were less significant.

As stated by one of the teachers, Teacher D, "Good old experience teaches you a lot".

Chapter 8

CONVERGENCE AND DISCUSSION OF THE FINDINGS

Introduction

The preceding three chapters have presented the findings, for the most part, without discussion and without any attempt to converge the findings of the quantitative and qualitative stages of this study or even those within the quantitative stage. This chapter will now discuss these findings in relation, initially, to the 10 research subquestions and then in relation to the broad research question. There will be three aspects to the discussion of each of these: the quantitative findings; the qualitative findings; within- and between-method examination of the findings in order to establish the degree of consistency and convergence of the results. These aspects will not necessarily be discrete but will tend to be interwoven. Both converging and diverging results will be discussed. In the case of divergence more weighting will be given to what is happening now rather than what might happen, that is, substantive rather than projected happenings.

Following the above examination of the results directly relating to the research questions, there will be an examination of the findings that occurred as a result of the analytic procedures used to address the research questions but which were not directly sought in response to those questions. It is considered that these findings also have an importance for they should be of value to a range of interest groups concerned with special education, in particular, those concerned with teacher training and professional development and with recruitment in special education.

The research subquestions

(i) Is full special education teacher training associated with excellence?

This subquestion was addressed by the examination of:

- the statistical association between the teachers' case estimates of themselves and their training (Table 6.2);
- the statistical association between the supervisors' case estimates of these teachers and the teachers' training (Table 6.3);
- the trained teachers' and supervisors' perceptions of the major contributors to their own individual professional development (Tables 5.32-5.33);
- the teachers' and the supervisors' perceptions of the major contributors, or potential contributors, to the individual teachers' attainment of professional excellence (Tables 6.20-6.22);
- the teachers' and the supervisors' perceptions of the major contributors to the professional development of special educators in general (Table 6.22);
- the case studies of the three trained excellent teachers to determine the part played by training in their professional development;
- the relative importance of training compared with the other contributors to the professional development of the five excellent teachers participating in the case studies (Table 7.6).

There is not a convergence of findings in relation to this question. The major divergence concerns the different statistical associations of the teachers and supervisors. There is no statistical evidence of an association between the teachers' case estimates (based on their self-appraisal) and their postgraduate training or lack of training. In contrast to this finding there is a significant association between the supervisors' case estimates of the teachers and the teachers' training. In terms of the appraisals using the draft NSW DSE competency statement, the supervisors believed that

postgraduate training had a positive effect on the development of excellence in teaching: the teachers did not believe that it had this effect.

There was further lack of clarity in the findings. Many trained teachers (55%) and supervisors (70%) believed that training was of prime importance in their own professional development. This concurs with the general public perception of the importance of training. When asked what would most assist the less-than-excellent teachers, both teachers and supervisors gave higher ranking elsewhere. However, as some (extrapolating from the frequency data) of these teachers would have already completed training this result could be expected. When the teachers and supervisors were asked to generate their own responses concerning contributors to excellence in special educators in general, both groups gave a greater number of responses to other contributors than to training.

Of the five excellent teachers selected to participate in the Stage 2 qualitative aspect of this study, three had completed postgraduate training. Probing questioning, necessitating considerable reflection about the development of specific competencies, and detailed analysis of the transcripts of these interviews, revealed that whilst their training was regarded as very important in their professional development, it was not for any of the three, the major contributor. When computation adjustments were made on the basis of contributor (postgraduate training) availability to the five teachers, special education training was ranked second in importance. There was a large gap in usage between this contributor and special education teaching experience which received the highest ranking (Table 7.6).

The evidence from this study, both quantitative and qualitative aspects, does not clearly support a dominant association between teacher training in special education and excellence in teaching. There are strong perceptions that training does contribute to excellence. These perceptions are held in particular by the supervisors, most (140 of 178) of whom were trained. It is possible that the holding of these perceptions has been influenced by the continuing and frequent statements made by those in authority or by those who have assumed positions of knowledge.

Those who advocate postgraduate training, such as the Schools Council of NBEET and NSW DSE, can claim strong support on the basis of the supervisors' appraisal of their teachers. Equally, those who do not advocate such training can claim strong support on the basis of the teachers' self appraisals. The contrast between the two groups of appraisers needs examination. It is known from the Rasch analysis and subsequent factor analysis that teachers and supervisors had different perceptions of the teachers' performance of the 22 competencies. Correlational analysis showed that several of those competencies, which the teachers considered to be easy and that they therefore performed them well, were considered by their supervisors to not be performed well and to be difficult. Clearly the two groups had a different basis for their appraisals. It is probable that, at least to some extent, this difference in appraisal is due to the different roles and therefore different constructs of teaching held by these two groups of special educators. Teachers necessarily focus on day-to-day, within-classroom responsibilities and, in general, are very aware of their range of skills, failures and successes. Their supervisors necessarily have both a broader construct of special education and a more restricted understanding of what is happening minute-by-minute within their paired teachers' classrooms. Three possibilities emerge: the supervisors had unrealistic expectations of the teachers judging them from their own professional perspective; the supervisors were not adequately aware of the details of the teachers' performance; the teachers were not competent judges of their own performance.

This study cannot comment on which of the two groups was the more accurate in its appraisal of the teachers. However, the difference in appraisal does raise some important issues. If competency statements are to be used for appraisal purposes, as is suggested in the NPQTL Framework (1996), it would seem that the question of who does the appraising is a crucial one. If, as the NSW Teachers Federation prefers, and as Tasmania and the ACT practice, appraisal is to be carried out by both the teacher and a peer, perhaps an expert (or supervising) peer, it seems that there must be some sort of matching of perspectives. Where perspectives differ the question of whose is the more informed must arise.

The above divergence of findings highlights the need for a multimethod approach to this type of research. If this study had relied on the results of one procedure only and of one group of appraisers, the results would have been unequivocal. If the teachers only had conducted the appraisal and only the ANOVA statistical procedure had been used, the writer would have made a judgement that there was not an association between competence and training. On the other hand, if the supervisors only had conducted the appraisal, the results would have been the opposite. If the five case study participants had been the sole source of data, there would have been a conclusion of association but not of prime association. The several procedures used in this study do, in the final analysis, provide a confused view of the association between training and competence. This, however, is not without value for it raises other issues and highlights the challenges to be addressed in this type of study. The final answer will not be easily reached and any study that purports to do this should be read with care.

In summarising the evidence in relation to the subquestion, an association between teacher training in special education and excellence in teaching has not been irrefutably demonstrated. The weight of the evidence of this study is that there is some association but it is not clear how important this is.

(ii) Is mainstream teaching experience prior to special education training associated with excellence?

This question related only to the teachers who had completed full tertiary training and to their paired supervisors. Because of the assumptions concerning the benefits of at least two years of mainstream teaching experience prior to training, the statistical analysis was based on this two-year criteria. The subquestion was addressed by the examination of:

- the statistical association between the teachers' case estimates of themselves and their prior mainstream teaching (more than or less than two years) (Table 6.6);
- the statistical association between the supervisors' case estimates of their paired teachers and the teachers' prior mainstream teaching (Table 6.7);

- the teachers' and supervisors' perceptions of the major contributors, or potential contributors, to the individual teachers' attainment of professional excellence (Tables 6.21-6.22);
- the case studies of the two teachers who had completed postgraduate training following mainstream teaching.

The statistical evidence is that there is no association with teaching excellence and training following prior mainstream teaching. This is the perception of both the teachers and the supervisors. Some excellent trained teachers had prior mainstream experience and some did not. This finding confirms those of Meisgeier (1965), Blackwell (1972) and Sindelar (1993) all of whom found that prior mainstream teaching experience was not related to special education teaching competence. The three open-ended questions had the potential to generate response categories concerning training following mainstream teaching. They did not do so. There was a relatively small number of responses concerning mainstream teaching but these were not linked to training.

The qualitative Stage 2 evidence generally supports the Stage 1 finding of this present study. Neither of the two teachers with training and prior mainstream experience referred to any notable extent in their discussions of their professional development to their mainstream experience. Although she had made little reference to this over the two-day interview period, one of these teachers when directly asked at the conclusion of her interview, stated that she considered prior mainstream experience to be essential. Because the probing nature of the two days of interviews had not elicited this in a spontaneous way and because it was a single remark, it is considered that this comment does not have the strength of the above case study evidence to the contrary.

This study does not provide support for the Commonwealth statement (Schools Council, 1989) and the AASE policy (1988) concerning the preference for mainstream teaching experience prior to postgraduate training and special education appointment. The underlying assumption held by these bodies appears, on the basis of this study, to be without foundation.

(iii) Is total teaching experience prior to special education training associated with excellence?

This question related, for the large part, only to those teachers who had completed full special education training and to their paired supervisors. "Total" refers to both mainstream and special education teaching. This subquestion was included in this study because it relates to the NSW DSE practice of awarding special education cadetships only to those teachers who have two or more years of teaching experience. It is evident on an examination of the Departmental recruitment practices that the preferred steps prior to special education appointment be mainstream training, mainstream teaching of two or more years and then special education training. However, because of the numbers of untrained special educators already in the teaching force and the commitment to ensure that an increased percentage of special educators be trained, the NSW DSE necessarily includes the sum of both mainstream and special education experience in its cadetship selection criteria.

The subquestion was addressed by the examination of:

- the statistical association between the teachers' case estimates of their own teaching and their total teaching experience prior to training (more than or less than two years) (Table 6.8);
- the statistical association between the supervisors' case estimates of their paired teachers and those teachers' total teaching experience prior to training (Table 6.9).

It should be noted that of the three trained case study participants, none had taught in special education prior to training. Responses to the open-ended questions had the potential to identify this contributor, but in fact did not. Thus the answer to this subquestion relied on the ANOVA procedure only.

Statistical analysis concerning both the teachers' and their supervisors' appraisal showed that there was no association between excellence and total teaching experience prior to training. Those trained teachers who had less than two years' experience, in mainstream teaching or special education teaching or in the combination of these, were indistinguishable from those who had more than two years.

The NSW DSE has used the prior experience criteria as its major cadetship selection criteria since the mid-1970s (there also have been brief interviews but only of those with experience). This research finding suggests that in doing so it has not necessarily selected the best candidates for training and appointment. It has also spent approaching \$5m annually on the cadetship program. Using this criterion alone, it brings into question the wisdom of this expenditure. Because of its concern about the numbers of untrained special educators and the difficulties of finding trained teachers for less popular localities the DSE has, since 1989, offered a small number of special education training scholarships to inexperienced teachers. The total annual expenditure on these scholarships has been less than one-tenth of that on cadetships. It appears that this expenditure differential between the two programs is not justified. The finding is also at variance with the majority of the NSW teacher training institutions' 1970s' practice of requiring prior teaching experience as a criterion for course enrolment.

The finding concerning this subquestion, when coupled with the findings of the previous subquestion, strongly indicates that the current practice of awarding special education sponsorships should be reviewed. The DSE should reconsider its practice of allocating much greater finance to the cadetship program than to the scholarship program. It is acknowledged that a larger-scale study than this is required to confirm, or otherwise, the above two findings. Because of its scale, this present study can only examine *associations* and not *causal relationships*. Another way, and perhaps preferable way, of obtaining more definitive data would be to look at the evolution of excellence in special education teachers over a period of time where different cohorts of special educators are studied longitudinally. However, it is also pointed out that this study in relation to these subquestions has been intense in the number of procedures it has used, both quantitative and qualitative, and that the findings resulting from these have, almost entirely (the exception is the single statement made by one of the case study participants), been in agreement.

(iv) Is total teaching experience in special education associated with excellence in special education teaching?

This subquestion applied to all the participants as it was unconnected with training. Experience was classified as less than three years, three to

five years, six to ten years and more than ten years. The subquestion was addressed by the examination of:

- the statistical associations between the teachers' case estimates of themselves and their total special education teaching experience (Table 6.4);
- the statistical association between the supervisors' case estimates of their paired teachers and the total special education teaching experience of these teachers (Table 6.5);
- the teachers' and supervisors' perceptions of the contributors to their own professional development (Tables 5.32-5.37);
- the teachers' and supervisors' perceptions of the major contributors, or potential contributors, to the individual teachers' development of excellence (Tables 6.20-6.21);
- the teachers' and the supervisors' perceptions of the major contributors, in general, to the professional development of special educators (Table 6.22);
- the case studies of the five teachers in order to identify the importance of the part played by experience in their professional development (Table 7.6).

As with the first subquestion concerning training, the findings relating to total special education teaching experience are not conclusive.

The association between excellence and total teaching experience is supported by the results of the statistical analysis of the relationship between the teachers' case estimates based on their self appraisal and their total experience in special education. According to the teachers' perceptions, the teachers' performance improved markedly after the first five years of teaching in special education. These statistical findings confirm those of Field (1979), Westling et al. (1981, 1992), and Carter (1992) as well as the views of Retallick et al. (1994). However, the association between total experience and excellence is not supported by the statistical analysis of the supervisors' case estimates of their paired teachers and those teachers' total experience. Analysis using the

supervisors' case estimates showed no significant differences in teacher competence in terms of total experience. A visual examination of the group means, in fact, shows that the most competent group had had three to five years of special education teaching experience and that there was little difference between those with less than three years of experience and those with six to ten years. It is difficult to find an explanation for these unexpected between-group differences. They are at variance with the above literature references. It would appear that there is an interaction with other factors.

The evidence concerning the association of excellence and special education experience obtained from the remaining quantitative procedures is also unclear. In terms of both the teachers' and supervisors' responses to the request to rank order contributors as they applied to their own development, those who had completed special education training ranked experience second to that of training. It should be noted that the three full training possibilities were listed first in the trained respondents' (teachers and supervisors) question (Part A, Question 29). It cannot be known if this positioning had any effect on the respondents. Whilst 54% of the trained teachers placed training first, 31% of these teachers placed experience in special education first. The supervisors were even more emphatic concerning the prime position of their training to their own development (70% chose training, 22% chose experience). Both teacher and supervisor respondents, who had not been trained, gave the very large majority of their first rankings to their teaching experience in special education.

Turning now to the responses to the three open-ended survey questions. The first two (Part B, Questions 24 and 25) concerned the teachers' own development. Those teachers, who had not appraised themselves as excellent (Question 24), did not consider that further experience would be of major assistance in their attainment of this excellence. The supervisors were of the same opinion as the teachers. The extent of the actual experience of these less-than-excellent teachers is not known. This may have influenced the responses.

In contrast, the responses by the teachers who had appraised themselves as excellent (Question 25) clearly indicated that their excellence was predominantly attributable to their special education teaching experience.

This teacher-generated response appears to be at variance with those given to Part A, Questions 29 - 31. The supervisors also gave teaching experience in special education a large number of responses, although not the largest number, this being reserved for the participant-generated category of "Teamwork and collaboration".

In responding to open-ended Part C, Question 1 concerning the factors that best contribute to excellence in special educators in general (as distinct from their own excellence), both the teachers and supervisors gave *learning-by-doing* types of responses (categorised by the writer as "Experiential knowledge") but did not rank this as highly as most other responses, particularly those relating to personal attributes. It is possible that some of the inclusions in the "Application of knowledge" category were based on experiential learning but this was not clear. Equally some of these responses could have been based on academic learning.

The importance of experience is confirmed by the qualitative analysis. Despite their contrasting age, teaching situations, training, length of mainstream teaching experience, length of special education teaching experience and the varied nature of their teaching experiences, the prime contributor to the five teachers' development of the 22 DSE competencies was their special education teaching experience. The index (concerning contributor usage in competency development) which resulted in this ranking was considerably higher than that of the next ranked contributor, postgraduate training.

The above discussion shows that there is considerable divergence in the findings relating to this subquestion. However, when the findings are grouped into two categories, this divergence is not as great as it first appears. The first category concerns the **actual** (what has already happened) teaching experience of the identified excellent special educators. In examining the findings concerning this, they confirm with one exception the association between total teaching experience in special education and teaching excellence. The exception concerns the statistical analysis of the supervisors' appraisal of their paired teachers and those teachers' experience. The findings which indicated an association, not necessarily the prime association, were:

- the statistical analysis of the relationship between the teachers' case estimates and the teachers' length of special education teaching experience;
- the analysis of the teachers' and the supervisors' open-ended responses concerning the contributors to the development of the excellent special educators;
- the qualitative analysis of the contributors to the development of excellence in the five case study participants.

However, the failure concerning the statistical analysis of the supervisors' case estimates to confirm the association cannot be ignored. Again there is a divergence between the teachers' and supervisors' perceptions. Again this appears to relate to the different professional perspectives of the teachers and supervisors. In this case, the supervisors' position is not supported by the literature referred to above whilst the teachers' is.

The comments made concerning Subquestion 1, in relation to the dangers of using one analytic procedure only in this type of research, can equally be made here.

The following four subquestions were all addressed by the examination of:

- the teachers' and supervisors' perceptions of the contributors to their own professional development (Tables 5.32-5.37);
- the teachers' and supervisors' responses to the three open-ended questions (Tables 6.20-6.22);
- the Stage 2 case studies of the five excellent teachers and their ranking order of the contributors (Tables 7.6).

(v) Are special education inservice courses associated with excellence?

Both short and major inservice courses were included in this study. Major inservice courses in the survey questionnaires were defined as being of "at least eight weeks part-time duration". Most of those listed as examples

were longer, and/or more intensive, than this. The topic of major inservice courses will be addressed prior to that of short courses.

Although the DSE has held several major courses over the last few years, only a quarter of the teachers (37) and supervisors (40) had attended one or more. As some of the courses were designed for special educators without formal training in special education, and as a large number of the Stage 1 participants had received such training, it is not surprising that only a small proportion had attended such courses.

None of the trained teachers and supervisors considered that a major inservice course had been the prime contributor to their professional development. These courses did not feature to any notable extent in the successive rankings up to ranking five. Of those teachers and supervisors who had not completed special education training but had completed a major inservice course, the ranking of this was also negligible. There was some relatively small response in favour of inservice courses generally, that is, both short and major, to two of the open-ended question (Part B, Questions 24 and 25) concerning the development, or potential development, of the individual teachers. No mention was made of inservice courses in the responses to the open-ended question (Part C, Question 1) concerning the respondents' perceptions of the contributors to excellence in general.

Two of the five excellent teachers who participated in the case studies had attended a major inservice course. One of these teachers was trained and the other was not. Their major inservice courses were not considered to be important development contributors being associated in each case with the learning of only three competencies.

Short inservice courses will now be addressed. Attendance at conferences is included in this section. The large majority of both teachers and supervisors attended these activities at least twice a year. Two only of the teachers and one of the supervisors considered these to have had prime importance in their professional development. This category received some very small attention in the higher rankings. Conference attendance was not mentioned in any of the three open-ended questions. "DSE inservice courses" was generated by the participants to Part B, Questions 24 and 25 concerning the teachers' past or potential individual

development. The responses did not distinguish between short and major courses. As a potential contributor these courses were ranked equal fourth of eight potential contributors to the development of the less-than-excellent teachers and seventh of nine contributors to the excellent teachers' development. The responses to the open-ended Part C question concerning contributors in general, failed in some cases to distinguish "Formal knowledge" that was learnt through a full university special education course and that learnt through formal DSE inservice courses although the large majority of responses clearly referred to the former. Thus, in this question also there was little perception that DSE inservice courses were a major contributor.

All five of the Stage 2 participants had attended DSE (or in the case of Teacher E a course held by the Juvenile Justice setting in which she worked) inservice courses. Major and minor inservice courses were together ranked fourth by the five excellent teachers. There is, however, a considerable gap between the figure on which this ranking is based and that of the third ranked contributor. Conference (not DSE) attendance was ranked twelfth of thirteen contributors by these teachers.

The findings provided no evidence to support a strong association between major or other inservice courses, including conferences, and professional excellence. This finding suggests that the NSW DSE should review the contribution being made by these courses to the development of special educators, both trained and not trained. It appears that their contribution is seen to be not significant. This applies also to conferences held by organisations other than DSE. It is outside the scope of this study to identify whether this comparatively low regard for major or short inservice courses, or for conferences, as contributors to professional excellences, is due to the organisation, the content, the delivery or some other aspect of such courses.

As explained in the Review of the Literature, Chapter 2, there is a paucity of research into the value of inservice courses. In the United States, the Sindelar and Marks (1993) review of 15 such courses included only one study relating to special education. The quality of this study was considered by the reviewers to be questionable.

(vi) Is special education mentoring associated with excellence in special education teaching?

A mentor in the Stage 1 survey questionnaires was defined as being "someone who has taken active and regular responsibility for informally inservicing you and supporting your efforts to improve". Seventy-seven of the teachers and 45 of the supervisors had been mentored. This appears to the writer to be a considerable number in view of the fact that the DSE has not actively promoted the mentoring relationship. On the other hand, it could be expected that some of the senior staff in schools would consider mentoring to be part of their supervisory duties.

Neither the teachers nor the supervisors, whether trained or not, considered that mentoring made any significant contribution to their own development. Mentoring was not mentioned in any of the responses to the three open-ended questions. "School hierarchy support" was regarded as a potential (Part B, Question 24) or an actual (Part B, Question 25) source of development. However, the respondents wrote in terms of such support as release from face-to-face teaching in order to visit another school, interest in what they were doing, provision of resources. "Informal professional development" was also a category generated in these responses and was referred to as occasional help, this not being characterised by the regularity of mentoring. A mentoring relationship was not referred to in the responses to the third open-ended question (Part C, Question 1).

In terms of the qualitative aspect of this study, mentoring again had little significance. Two of the excellent special educators spoke of a mentoring relationship. Both regarded this with enthusiasm, although the analysis of both transcripts showed that mentoring actually contributed to very few of the teaching competencies. The other three teachers spoke of occasional and sporadic assistance by a number of peers both within and without their schools. Because mentoring was experienced by only two teachers it was combined with these other forms of assistance within the school. "Peers within school" was the fifth contributor in importance to the teachers' professional development, whilst "Outside colleagues" was ranked ninth.

Both the quantitative and qualitative data analyses concur that mentoring is not associated with excellence in special education teaching. It appears that the DSE should examine this potential and relatively inexpensive method of professional development and support. Support of teachers early in their careers has been shown (Chapman and Green, 1986; Odell and Ferraro, 1992) to be positively linked with higher retention rates. Retention is a matter of concern in many special education systems (Weiskoff, 1980; Santoro, 1983; Brownell, 1992; Billingsley and Cross, 1992). Although the NSW DSE does not keep records of attrition, there is a perception that attrition, possible due to burnout, is relatively high in special education.

(vii) Is belonging to a special education association or group associated with excellence in special education teaching?

Almost half of the teachers and almost a third of the supervisors were members of a special education association or group. Information concerning the type of membership was not sought through the Stage 1 surveys. Thus it is not known if this was part of their employment obligations or voluntary and in their own time and at their own expense.

No survey respondent identified this membership as the prime contributor to his/her development and there was almost no inclusion of this in later rankings. A membership category was not generated by any of the responses to the three open-ended questions. Membership of formal associations was spoken of by only one of the Stage 2 case study participants and his development of two competencies was related to this membership. Two other case study participants spoke of membership of work related groups but did this in the context of their learning from individuals in those committees. The very few competencies learnt through this individual association have been listed within the case study category "Outside peers".

Thus, of the 346 participants in this study one only appears to consider he has gained professionally from association membership. This was one of the five case study participants. Of the 13 categories generated by these participants, association membership was ranked last.

It can thus be stated, as a result of the examination of both the Stage 1 quantitative and Stage 2 qualitative data, that membership of a special education association or group is not associated with excellence in special education teaching. There are several major state, national and international special education associations available for NSW teacher membership. This study suggests that many teachers have joined such associations. As the survey question also included "groups" it is not known what this number is. The actual educational value of such membership to NSW special educators should be questioned. The writer is not implying that there is not a potential for such membership to make a valuable contribution to the professional development needs of NSW special educators but rather that, at present, it is not perceived as doing so.

(viii) Is professional reading associated with excellence in special education teaching?

The large majority of the survey participants stated that they regularly read journal articles. Only one of these, an untrained supervisor, ranked this as the major contributor to his or her professional development. Very few respondents included this category in their later rankings. The reading of journals (or books) was not referred to in the three open-ended questions as a contributor, real or potential. There was some reference to such reading (as distinct from the reading of DSE documents) by four of the five case study participants. However, this was slight and it was ranked eighth of the thirteen contributors.

It can be concluded, as a result of the examination of both the quantitative and qualitative data, that professional reading is not associated with excellence in special education teaching. The reading of DSE documents was raised by four of the five case study participants. It received some minor acknowledgment as a contributor to the development of the competencies.

(ix) Is age associated with excellence in special education teaching?

This subquestion was addressed in one way only, that is, through the statistical analysis of the association between the case estimates (both teachers' and supervisors') of the Stage 1 teacher participants and their age

(see Tables 6.10-6.11). As with specialist training and with experience, there is a divergence of findings. Again, this provides a caution against using a single analytic procedure or a single sample group in this type of research. In terms of the teachers' case estimates and their age, a positive association was found to exist between increasing age and teaching excellence. The oldest teachers, aged 51-60 years, were perceived to be the best teachers.

One age group, the 31-40 years group, was an exception to the increasing age/excellence association. This group was perceived to be less competent than their peers of 26-30 years. An explanation for this is suggested here. The majority of special educators are women. It is known from the questionnaires that the most common reason for the teachers entering special education was to gain employment (this was a very close second to "challenge" for the supervisors). The analysis of the teachers' age/excellence association suggests a common pattern could be: training and employment as a mainstream educator in their twenties; a period of being occupied in the home in their thirties with home child raising responsibilities; a return to teaching work in the later thirties taking whatever teaching positions were available, these often being special education positions. This pattern would mean that many of those in the age group 31-40 years would be beginning special educators.

The above positive general age/excellence association finding is in accord with the considerable volume of literature concerning mainstream educators (Nia, 1986; Watson, 1988; Stallings and Kowalski, 1990; Fink and Janssen, 1993; Retallick, 1993), although it should be noted that the majority of these authors have written about the value of increasing life experiences rather than stating the connection with age. This writer is making this connection. There is some contradiction in the literature concerning special educators. Westling et al. (1992) found a positive association whilst Blackwell (1972) and Sindelar (1993) did not.

In contrast, no significant association was found to exist between the supervisors' case estimates and their paired teachers' age. Whilst not statistically significant, a visual examination of the analysis reveals that the most competent group was the 20 to 25 age range. The fact that this group had only 10 members is a caution against attaching much significance to this. Unlike the situation with the teachers who, in general,

see competence increasing with age, it is difficult to see a pattern concerning the supervisors. There was a similar level of competency performance in all age groups (ranging from 20 to 25 years through to 51 to 60 years) with the exception of the 41 to 50 age group. This last group were the least competent teachers as appraised by their supervisors. The case made in the discussion concerning the teachers' appraisal of their members in the 31 to 40 age range may have some application to the supervisors' appraisal concerning the teachers in the 41 to 50 age range. Some of these teachers, in the early part of this range, may have returned to teaching recently (following home duties) and were in the early stages of their special education teaching. There is, however, some conflict between this possibility and the supervisors' high (but not statistically significant) appraisal of those young and inexperienced teachers. The analysis of the supervisors' case estimates/case estimates is in accordance with Sindelar's (1993) research which also found no significant relationship with age.

(x) Are there other factors associated with excellence in special education teaching?

All the "other" (not listed by the writer in the questionnaires) factors were generated by the Stage 1 participants in their responses to the three open-ended questions and by the Stage 2 participants in their interviews with the writer. One new contributor was identified as a major factor in all three question responses and in the interviews. This concerned the personal characteristics or attributes of the special educators. The extent of the weighting given to this in terms of two of the questions (Part B, Question 25 and Part C, Question 1) and the case studies was unexpected. This high response did not occur in relation to Part B, Question 24. This last question required the teachers and supervisors to state their perceptions of the factors necessary for the (future) professional development of the less-than-excellent teachers. Whilst some respondents did list personal characteristics, it is understandable that this category received relatively few entries. The prospect of changing the personal characteristics of these known adults would possibly seem to be unrealistic.

In contrast, and in respect of those teachers who were appraised as excellent, the teachers, and particularly the supervisors, believed that

personal characteristics was the dominant factor associated with their excellence. The supervisors gave this category almost four times the number of entries they ascribed to their second factor. This prime weighting of personal attributes also featured in both the teachers' and supervisors' responses to the Part C question concerning the factors which best contribute to excellence in special educators in general. The "Personal attributes" category received more than twice the number of entries of the next ranked category. The five case study participants did not give this same degree of dominance to personal attributes but they did frequently attribute their learning of particular competencies to their own characteristics. This resulted in their, as a group, ranking this contributor third in their self-generated list of thirteen contributors.

The above evidence has clearly established that there is a perception of a link between personal characteristics and excellence in special education teaching. This study does not identify what these characteristics are. The inability of this writer to tease out the separate characteristics from the participants' responses confirms the difficulties, expressed by Lessen and Frankiewicz (1992), concerning research in this area. This does not imply that such research is not profitable but rather that appropriate methodologies need to be developed. This study does confirm the importance placed on personal characteristics by the many early writers in this field, such as Cogan (1958), Reed (1962), Rogers (1965), Cruickshank (1966), Hamachek (1969) and Rosenshine and Furst (1977). Whilst there is much less recent literature in this area than in the 1950s, 1960s and early 1970s, this study does support the efforts of such writers as Helldin (1992), Lessen and Frankiewicz (1992) and Hughes (1991) to redirect attention to this area.

A number of other contributors to excellence were raised by the participants either in the open-ended questions or in the case studies. These included teamwork and collaboration and school hierarchy support. Both of these fall outside the parameters of this study and are more closely related to that of Retallick and his co-researchers (1994) concerning the culture of, and support within, the school. This study has focussed on factors within the teachers rather than conditions within the school. Mentoring was included because it is perceived by the writer as a

two-way relationship that has the continuing agreement and activity of the two people.

The broad research question

The above subquestions have now been addressed. There has been both divergence and convergence of results. The importance of using a variety of analytic procedures in this type of research has been highlighted; the use of just one, or even a small number, has the potential to provide a limited or distorted view and understanding. The use, in this study of a number of procedures, however, does mean that a clear and simple answer cannot be given to the broad research question. In addition, because of the number of factors examined, a secondary part of the answer to the broad question, which relates to positive associations, will be about those that are not associated with excellence.

The answer to the broad research question has three aspects.

(i) Positive association:

- Personal characteristics are associated with excellence in special education teaching.

(ii) Equivocal association:

- There is not clear evidence that postgraduate training, total teaching experience in special education, or age are associated with excellence but there is some support for these factors.

(iii) No association:

- Mainstream and/or special education teaching prior to postgraduate training are not associated with excellence.
- Mentoring, reading journal articles, joining a special education association or group, attending conferences and participating in inservice courses are not associated with excellence.

Findings not directly associated with the research questions

These findings relate to the research instrument, the 1994 NSW DSE draft discussion paper "Critical attributes for beginning special education teachers" and to some findings concerning the demographic analysis of the sample of teachers and supervisors.

The Stage 1 research instrument

Three aspects of the survey questionnaires warrant some discussion. They are the length of the questionnaires and the response to some of the questions, the method of appraisal of the teachers and the suitability and use of the NSW DSE draft discussion paper "Critical attributes for beginning special education teachers" as the appraisal instrument.

Length of the questionnaires

The questionnaires contained 58 questions. Most, but not all, required answers by all the participants. Whilst the majority required brief answers, a number did require considerable reflection. Although all questions related directly to the research questions, the fact that a small number of respondents omitted some answers suggests that these special educators found the length and nature of the questionnaire to be too onerous for full completion. Although the trial participants had not found this, the writer may have been wiser to have limited the questions a little. On the other hand this would also have limited the data. Thus there is a fine line between data needed and length of questionnaire. The writer may not have judged this with complete accuracy.

Participants' understanding

A number of participants appeared to have been unclear about their status with the DSE. Some of the teachers, on the basis of a small number of undergraduate units, considered that they were fully qualified as special educators. Several were not sure in what areas they were qualified. This resulted in the responses to Part A, Questions 20, 22, 23 not being used. It also resulted in some small differences in responses to Questions 15, 16, 17, 28 and 29. This was discussed in Chapter 5. There seems cause for

concern that some teachers do not know the facts about these aspects of their employment.

Method of appraisal

The combination of supervisor (as expert peer) appraisal and self appraisal appears to have been very successful. This provided an essential balance of perspectives to this study. Without this, the findings could have been clearer but less reliable. It is not known how many potential participants were deterred from responding because of the appraisal process, but the writer's strong impression is that, in general, it was well-received and that the competency questions were well-considered. Although the teachers and supervisors did not agree concerning the difficulty of the competency items, they did have a similar spread in the range of appraisal categories chosen on the five-point Likert scale. The supervisors were both more critical and more generous than the teachers.

Difficulty of the competency items

The differences in the perceptions of the teachers and supervisors of the difficulty of each of the 22 competencies should be considered by the DSE. With some competencies these differences were extreme, that is, those competencies which the teachers felt they performed well but the supervisors considered that they performed them poorly. These differences are shown in Table 6.1. The greatest differences occurred with Competencies 6 (develop, use CBA), 7 (identify learning outcomes, maximise independence), 8 (use research-based instructional strategies), 11 (use research-based preventative behaviour strategies), 16 (advocate for individual programs from earliest need) and 20 (know child protection issues). The first four of these the teachers considered that they did well, whilst the supervisors considered that they performed them relatively poorly. This is of particular concern because all four competencies relate to classroom teaching; they are all included in the DSE unit category "Delivery and analysis of service". If it accepted that the supervisors' knowledge of special education teaching is greater than that of the teachers, it means that the teachers thought they were good, in terms of these teaching competencies, but they were not. It is not known if, in the

supervisors' opinion, the teachers did not achieve a high degree of excellence because they did not perceive an importance in these competencies, had not had an opportunity to learn them, or did not understand what the competencies entailed. It would seem important that the DSE is aware of this.

Competency appraisal and overall appraisal

Both the teachers' and supervisors' appraisals using the DSE list showed high correlations with their overall appraisals (Part B, Question 23). The teachers' general assessment of their overall competency was very similar to their assessment of their individual competencies. This high correlation occurred also in relation to the supervisors' appraisals of the teachers. However, as the general question followed the 22 DSE competencies there may have been a mind-set which influenced the responses to the general question. A reversal of the positioning of the general appraisal question and the 22 competencies may equally have resulted in the earlier question influencing the later questions. The fact that the teachers and supervisors appraised very differently has already been discussed.

Relationship of the competency items to the special education workplace

The Rasch analysis provided strong evidence, in terms of both the teachers and the supervisors, that the 22 competency items all relate to the workplace competencies of the special educator. All items in the DSE list should be in that list. This does not confirm that the list is exhaustive of the competencies required by an effective special educator. It also does not confirm that the competencies are stated in the most effective way, nor that they are grouped in the most meaningful way to teachers or supervisors. These last two points will now be discussed.

Factor analysis

In Chapter 5 it was stated that the five factor structure, has, in relation to both the teachers and the supervisors, a sound statistical basis and as well lends itself to meaningful interpretation.

The draft NSW DSE statement of the essential knowledge, skills and attitudes contains 22 competency elements grouped into four units. In contrast to many overseas special education competency statements, this is a very small number of competencies (the CEC, 1995 Common Core statement contains 108 competencies). As the overall content of the NSW and major United States lists are very similar, the NSW competency elements of necessity are broad statements. However, each of these broad statements is detailed further by one or more performance criteria. These can be read as subcategories of the elements and it appears that this was how the respondents, both teachers and supervisors, reacted to them. At times there seems to have been a focus on one of these subcategories rather than on the broad element, this apparently being a response influenced by its dominant relevance to the particular teacher or supervisor.

In comparing the teachers' and supervisors' groupings of the competencies into the five factors described in Chapter 5, it is clear that there are both similar and different conceptualisations of the competencies. There are also similarities and differences when compared with the DSE groupings of the competency elements into their four units (see Appendix 1). An examination of these grouping differences reveals some different perceptions between teachers and supervisors. The insights gained from this, if acted upon, have the potential to improve the teaching of students with disabilities.

It appears that there are two possible reasons for the differences between the teachers' and supervisors' factoring: a contrasting construct of some aspects of special education and the teachers' role; a focus on different terms or phrases used to express a particular element or, more frequently, a performance criterion. These two reasons seem to be attributable to the necessarily different perspectives of teachers and supervisors, the former being responsible for their own class or support situation only and the latter having supervisory responsibilities for several classes or support situations combined with, usually, their own teaching responsibilities. Thus, for example, concerning Competency 4 it appears that the teachers concentrated on the curricula aspects of the element and performance criteria. In contrast, the supervisors appear to have focussed on the DSE policy references these being important in their leadership role.

This section of Chapter 8 will consider the teachers' allocation of competencies to the five factors identified in Chapter 6. The writer will seek to extract the essence of each factor thereby gaining understanding of the concepts which directed the teachers' thinking. A summary of this essence is used to label the factor. This discussion will be followed by a parallel discussion concerning the supervisors. The latter discussion, however, will also include comparisons with the teachers' factoring and with the DSE units, particularly when differences appear to be of particular interest or significance. The section will conclude with a summary and statement concerning issues which the NSW DSE school and system special education administrators might wish to consider.

In the following discussion the competency composition of each factor is identified by number and a very brief summary phrase. These phrases do not fully encapsulate the entirety of the multifaceted nature of the elements. Appendix 1, "Teacher Questionnaire" includes in Part B the full DSE statement of the competencies.

The teachers' five factors

Factor 1 - Promotion of rights of students with special needs

Competencies

17 - provide parents, students information re rights

18 - work to change attitudes

19 - support parents, community

20 - know child protection issues

21 - demonstrate efficient resource management

All the above competencies concern liaison with people or agencies outside the classroom. The liaison and promotion is characterised by the dominance of a one-way service (teacher to other). This relationship is particularly clear with Competencies 17, 18 and 19. With Competency 20, it appears the teachers focussed on "procedures for notification" and "legal and DSE requirements" (because of the mandatory requirement for NSW

teachers to notify of any suspicion of sexual assault all the teachers would have been aware of what this meant) as the giving of information to others. Similarly, Competency 21 can be interpreted as meaning the teacher having a dominant role, as distinct from a sharing role, in connection with people outside the classroom. Whilst the teacher is in a position of dominance or even power in relation to this factor, the teacher as co-worker in a collegial relationship is the essence of Factor 5.

Factor 2 - Classroom teaching

Competencies

- 1 - demonstrate understanding of special needs
- 2 - apply principles normalisation, integration
- 4 - adapt curricula, apply DSE policies
- 6 - develop, use CBA
- 7 - identify learning outcomes, maximise independence
- 8 - use research-based instructional strategies

All six competencies relate to aspects of the special educators' activities in the direct teaching of his/her students within the classroom. Whilst Competency 1 can be viewed as having wider application than this (as is the view of the supervisors), it appears that the teachers focussed on "the implications for classroom teaching" in their interpretation of the competency. All six of these competencies are listed in the DSE unit "Delivery and analysis of service". However, the DSE list contains 11 competencies, the teachers' omission of five (Competencies 3, 5, 9, 10, 11) being significant. These omissions will be discussed further.

Factor 3 - Use of help of others; behaviour management

Competencies

- 3 - locate, access range of support services
- 9 - monitor, evaluate programs, including behaviour
- 10 - ensure involvement parents, students in IEPs

11 - use research-based preventative behaviour strategies

Note: There is a negative association between Competencies 9 and 11 and Competencies 3 and 10.

All of the above four competencies are included (with others) in the DSE Unit 1, "Delivery and Analysis of Service". Because of the negative associations, it is clear that the teachers' perceptions are not in accord with those of the DSE. It is, in fact, difficult to identify the commonalities (taking into account the negative relationships) within this factor. A possible interpretation of the connection between Competencies 3 and 10 is that they both call upon the teacher to act in ways that he/she may be reluctant to do. Both require the teacher to use the help of others: the active involvement of parents in the design of programs; the accessing of DSE and other resources. In contrast Competencies 9 and 11 base the teacher firmly within the classroom and in charge. Both also relate clearly to behaviour management. The negative relationship of the two pairs of competencies suggests an incompatibility between them as perceived by the teachers.

Two issues of concern emerge from the above. Firstly, it appears that the traditional role of the teacher being in charge is still being held by today's classroom special educators. Liaison with parents is desirable as long as the relationship is supportive, as in Factor 1, but not desirable when it means working together as equals. Secondly, it appears that teachers do not see the nexus between good teaching (Factor 2) and behaviour management. The essential nature of this nexus is clearly accepted by the DSE in its inclusion of Competencies 9 and 11 in the Unit "Delivery and analysis of service".

Factor 4 - Responsibilities of the teacher and of others

Competencies

15 - promote responsibility of all teachers, schools

16 - advocate for individual programs from earliest need

22 - use efficient reporting procedures

Note: There is a negative association between Competencies 15 and 16 and Competency 22.

Competencies 15 and 16 are both concerned with the teacher's promotion of special education provisions and responsibilities in others and are negatively associated with Competency 22 which requires the acceptance by the teacher of reporting responsibilities. There is a subtle distinction between the roles required in Competencies 15 and 16 and that required in Competency 22. The first two competencies suggest that others have the prime responsibilities whilst the last implies more responsibility on the part of the teacher. There is also a subtle difference between Competencies 15 and 16 and the competencies included in Factor 1, "Liaison with others with teacher dominant". All these competencies, except for Competency 21, are grouped together by the DSE. Those included in the teachers' Factor 1 emphasise what the teacher has to do, this being an almost top-down type of role. Competencies 15 and 16 contain the intention that other teachers will be required, even enabled, to take on the responsibilities of the special educator. There are indications that the teachers have some reluctance concerning this.

Factor 5 - Collaboration

Competencies

3 - locate, access range of support services

5 - use information from other support person

12 - understand practices underpinning collaboration

13 - work in a team

14 - negotiate role, responsibilities in school

All of the above competencies require collaboration with others. Competencies 12, 13 and 14 form the DSE Unit 2, "Working as a member of a team to ensure delivery of appropriate services". The first two competencies listed above are included in the DSE unit concerning classroom teaching (Unit 1) although both do require working with others.

Competency 3, because of its similar factor loading, has also been grouped with the teachers' Factor 3 competencies. Its loading is very slightly higher for Factor 5. It appears that some teachers in ascribing it to this present factor focussed on the "disseminate information from support services" aspect seeing this as a role of a special education team member rather than the classroom teaching aspect. This appears to have been the DSE focus.

Supervisors

Factor 1 - Promotion to all of rights of students with special needs

Competencies

- 3 - locate, access range of support services
- 5 - use information from other support personnel
- 10 - ensure involvement parents, students in IEPs
- 16 - advocate for individual programs from earliest need
- 17 - provide parents, students information re rights
- 18 - work to change attitudes
- 19 - support parents, community
- 20 - know child protection issues
- 21 - demonstrate efficient resource management

The composition of this factor is similar to, but more extensive than, the teachers' Factor 1. It is clear that the supervisors were convinced of the prime importance of advocating to all concerned, including the community at large, the rights of students with special needs. All the above competencies are concerned with advocacy of rights, changing attitudes and accessing provisions. With one exception, Competency 15 (promotion of the responsibility of all teachers), this factor includes all those included in the DSE Unit 3, "Promotes and supports the rights and interests of people with special needs". It also includes several

competencies from the DSE Unit 1, "Delivery and analysis of service", these inclusions (Competencies 3, 5 and 10) all referring to the involvement or support of others.

There is some congruence between the teachers' and supervisors' Factor 1 and between these and the DSE Unit 3, "Promotes and supports the rights of people with special needs".

Factor 2 - Classroom teaching including behaviour management

Competencies

- 1 - demonstrate understanding of special needs
- 2 - apply principles normalisation, integration
- 6 - develop, use CBA
- 7 - identify learning outcomes, maximise independence
- 8 - use research-based instructional strategies
- 9 - monitor, evaluate programs including behaviour
- 11 - use research-based preventative behaviour strategies

With the exception of the above three competencies (3, 5 and 10) and Competency 4 (which the supervisors allocated to Factor 4), this factor includes all those listed in the DSE Unit 1, "Delivery and analysis of service". This present factor is similar to Factor 2 of the teachers. It does, however, include Competencies 9 and 11, these both relating to behaviour management. Thus, unlike the teachers, but like the DSE, the supervisors do see a close nexus between effective teaching and good student behaviour.

Again, there is some congruence between the teachers' and supervisors' Factor 2 and between these and the DSE Unit 1, "Delivery and analysis of service".

Factor 3 - Implementation of DSE administrative requirements

Competencies

4 - adapt curricula, apply DSE policies

22 - use efficient reporting procedures

In teasing out the commonality between these two competencies, it appears that the supervisors, in relation to Competency 4, focussed on "apply Departmental policies". The supervisor participants in this study could be expected to regard this, as well as "establish reporting procedures" (Competency 22) as administrative duties. Whilst the purpose of the supervisors' use of the DSE competency statement in this study was to appraise the teachers, for whom the formal administrative responsibilities were less onerous, it appears that the supervisors' perspective as senior educators influenced their thinking. The contrast between the teachers' and supervisors' perspectives is particularly noticeable in relation to Competency 4. The teachers appear not to have focussed on the phrase "apply Departmental policies" but rather on "adapt curricula" and thus placed this competency in Factor 2, Classroom teaching. The DSE allocated a similar placement to that of the teachers.

There is no congruence between any DSE unit or teachers' factor and this supervisor factor.

Factor 4 - Advocacy within school

Competency

15 - promote responsibility of all teachers

The supervisors considered this competency to be distinct from all others. Whilst it could be expected that it would be placed with the other advocacy competencies into Factor 1, there does appear on close investigation to be a subtle difference between those competencies and Competency 15. Factor 1 competencies place an emphasis on advocacy, concerning the rights of students with special needs, to those outside the school setting, that is, other professionals, parents, community members. In contrast, Competency 15 is concerned with advocacy to fellow teachers within the particular school. This perspective is not shared by the DSE which does not make this distinction and so includes this competency with those others concerning the "rights and interests of students with special needs".

Factor 5 - Collaboration

Competencies

- 1 - demonstrate understanding of special needs
- 2 - apply principles normalisation, integration
- 12 - understand practices underpinning collaboration
- 13 - work in a team
- 14 - negotiate role and responsibilities in school

It should be noted that Competencies 1 and 2, because of their almost equal factor loadings, have been also listed under Factor 2, Classroom teaching. Both these competencies include concepts relating to classroom teaching, including within the special education classroom, and integration to other settings. Integration requires the use of advanced collaborative skills. It is understandable that integration, being a major focus of the supervisors' work, would be conceptually linked with the three collaborative competencies (12, 13 and 14). These three competencies are the elements of the DSE Unit, "Working as a member of a team to ensure delivery of service".

The teachers also concurred with the DSE and supervisors' grouping together Competencies 12, 13 and 14. They included these in their Factor 5 although pairing them with competencies other than those chosen by the supervisors. It is possible that they did not have the same strong conceptual link with the collaborative practices underlying successful integration that the supervisors appear to have had.

Summary and implications

There appears to be a meaningful basis for the factoring by the teachers and supervisors. In most cases this was clearly apparent but in some cases, notably Factors 3 and 4 for both groups of participants, this was less obvious. In these instances it was possible to make suggestions about the underlying concepts that placed certain competencies together but this was done with less confidence than with the remaining three factors. There was a considerable extent of agreement between the teachers' and supervisors' factors. Both groups placed advocacy as their prime factor, classroom teaching second and teamwork as their fifth factor. Where disagreement occurred, in the large majority of cases it could be explained by the different professional roles, and therefore perspectives, of the two groups.

There was also considerable agreement with the DSE unit compositions. Three factors of both the teachers and the supervisors showed strong relationships with three of the four DSE units. Some, at least, of the disagreement can be attributed to the wording and inclusions of the DSE elements and performance criteria. Some of these include, within the one competency, several different and not necessarily, or obviously, related skills. These several inclusions may be confusing or even serve to detract from the importance of each. Thus, for example, Competency 4 refers to both the adaptation of curricula and knowledge of Department policies. Some Department policies do relate to curricula but many do not. Perhaps the best known to special educators in NSW concerns the enrolment of students with special needs, this being an administrative policy. There are, in fact, very few curricula policies that special educators are obliged to implement. In terms of some of the competencies, the participants appear to have focussed on what they considered to have been most relevant to them and to have ignored the other aspects. It may have been more advisable for the DSE to have separated the less related facets of the various competencies even though this would have resulted in a larger number of units.

Two issues of concern emerged from the teachers' factor analysis. Both need addressing in terms of their professional development. Firstly, it is clear that the teachers did not see a link between effective teaching and behaviour management. Rather, they considered the two to be entirely

separate activities. This link was recognised by the supervisors. Secondly, there is an indication that the teachers still had a traditional view of their classroom as being their separate domain and that others, and particularly parents, should not have input to programs. If this is so it is out of step with the current DSE promotion of parental involvement and with the current moves towards inclusive practices (DSE, 1993).

Some aspects of the demographic frequency analysis

The frequency analysis of several questionnaire responses have relevance to DSE future planning. These concern the age of the teachers and supervisors and their intent to continue in special education. In November-December, 1994 (the time of Questionnaire completion), eleven percent of both the teachers and supervisors, in this sample, were in the age bracket, 51-60 years. The usual age of retirement is 55 to 60 years. Twenty-eight percent of the teachers and 31 percent of the supervisors, in this sample, planned to stop teaching in special education within three years. An additional 37 percent of the teachers and 41 percent of the supervisors planned to stop teaching in special education in four to ten years. This suggests that from 1994 to 2003 there will be a turn-over of special educators of 60-70%. The term "suggests" was deliberately used for it cannot be known if this sample of 346 teachers and supervisors is representative of the entire NSW special education teaching force. Considering the DSE's current commitment to ensuring a high percentage of trained teachers, these figures would indicate that prompt and continuing planning and action needs to take place to ensure a future teaching force of the type preferred. Unless proactive steps are taken in the near future, both the quantity and quality (as perceived currently by the DSE) of special educators will be at risk within the next few years.

Concluding statement

Before concluding this chapter two points need to be stressed. The first, which has been frequently stated, is that this study concerns the **perceptions** of the participating teachers and supervisors. Perceptions can change. The second concerns the scope of the study. It took place in NSW, in the state school system (the largest such system in Australia) and involved over 10% of the State's special educators. Only those who were

working with at least two other special education peers were invited to participate. The results apply to this group only. It is the writer's opinion, however, that they do have wider relevance and interest.

The major findings will be summarised in the following chapter and their implications highlighted. This will be in terms of their influence on policy and practice and of their indications for further research.