



## Including a learner with physical disabilities: stressful for teachers?

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### Abstract

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*Learners with physical disabilities have been entering mainstream schools for some years now. Whereas early research on inclusive education necessitated a strong focus on the needs of the learners, there has also been a recent interest in the role of the teachers in inclusive education. By adopting constructivism as the paradigm for inquiry a study was undertaken to establish the stress factors for teachers who have to include a learner with a physical disability in their mainstream classes. The rationale for the study is threefold: i) Learners with physical disabilities are entering mainstream schools increasingly, ii) it is often assumed that inclusive education is too stressful for teachers to cope with, and iii) related research has shown that increased contact with individuals with disabilities has a positive effect on attitudes towards individuals with disabilities. In accordance with the dialectical methodology of constructivism, the Teacher Stress and Coping Questionnaire and in-depth interviews were utilised to establish the stress factors and the extent of the stress factors that may be present. The aim of the constructivist inquiry process is to promote understanding and reconstruction. In this article the quantitative results indicate overall low or non-existent levels of stress in teachers who have to include a learner with a physical disability, and the results therefore contribute to our understanding of this situation. The qualitative results reconstruct the meanings that these teachers attach to the inclusion of a learner with a physical disability and reveal some albeit limited concerns about the communication processes between parents and teachers and a perceived lack of pre-service training.*

## 1. Introduction

The feasibility of including learners with physical disabilities is no longer an issue to be pondered; it is a reality in schools worldwide. Learners with disabilities have been entering mainstream schools for years now. A more relevant question would be to consider what inclusion implies.

The question what inclusion implies opens up a whole spectrum of conflicting opinions and even research approaches. The level of complexity of this question may lead one to believe that it cannot be answered as one question, but that it requires a very specific focus and clarity about the issue/s at stake. It does seem that researchers have responded in kind by defining very clearly *what* and *who* are investigated, while they attempt to contribute to the scientific body of knowledge on inclusive education. This article is no exception.

In this article the focus is on the stress experienced by teachers who have to include a learner with a physical disability in their mainstream classrooms. Learners with physical disabilities are generally thought to be “easier” to include than learners with disabilities that are more challenging in terms of learning (i.e. cognitive disabilities). This may be due to the fact that learners with physical disabilities may not necessarily need alterations to the curriculum, but they may require some modifications to the physical learning environment (Sands *et al.*, 2000:256). On the other hand, it is also sometimes said that learners with physical disabilities need special care for their particular disability, and that they can therefore not be included in mainstream classes, as it places too much stress on teachers. The research questions raised in this article are: Is it stressful for teachers to include a learner with a physical disability in their mainstream classrooms? If stress is experienced, what is the severity of their stress?

The rationale for this research is threefold. Firstly, learners with physical disabilities enter mainstream schools in South Africa and throughout the world. For many mainstream schools this is a first time, thereby rendering it a scarcely explored research topic. The implications and effects of the phenomenon have yet to be considered. Secondly, it is often assumed that inclusive education is too stressful for teachers, and therefore cannot work effectively. In the research undertaken for this article this question is addressed by exploring the phenomenon scientifically in order to make reliable and valid conclusions that go beyond assumptions. Thirdly, related research (Engelbrecht & Forlin, 1998) has indicated that attitudes towards individuals with disabilities improve as contact with them increases. Even though this article does not focus on attitudes, it may yield results that can illuminate the

relationship between increased contact with a learner with a physical disability and stress levels.

The trajectory of research on inclusive education has been an interesting one. The focus of early inclusion research was on the needs of learners being included, as well as on the rationale for inclusion on a broad philosophical, political and practical stage. Recently there has been a shift by also focusing on the teachers involved in the inclusion process (Bothma *et al.*, 2000; Eloff & Prozesky, 2000; Swart *et al.*, 2002). The provision of inclusionary teaching practices is an important aspect of this process (Bauer & Shea, 1999; Schmidt & Harriman, 1998). However, a prerequisite for effective inclusionary teaching practices is the dire need for teachers to be supported effectively in inclusive education. Otherwise they may not implement the most inclusive teaching strategies, because they may be overburdened and stressed. Hence areas where teachers experience most stress should be identified – and in an effort to support them effectively, assumptions about stress should not merely be made.

It was deemed important to conduct a contextual study that explores the stress factors experienced by *South African teachers*, in *South African classrooms*. In order to find indigenous responses to indigenous challenges, the research from other contexts can only provide general frameworks regarding the constructs involved. It cannot replace context-specific research. In this instance, the research is supported by the strong body of research from South Africa. This research undertaken during the past decade, responded to and was aligned with the international move towards inclusive education. However, the research on the *stress* experienced by teachers in inclusive education is limited and the research exploring the specific stress experienced by including a learner with a physical disability is sparse and anecdotal.

## 2. Theoretical and philosophical framework

We live in a rapidly evolving world in which social, educational, economic and political contexts are changing ever faster. The constructs of social justice, democratisation and globalisation have contributed to the breaking down of barriers and the creation of inclusionary practices in a variety of contexts – be it educational, economical or political. In terms of education, the notion of “education for all” is designed to support the concepts of inclusive schools – thereby creating inclusive communities in which everyone is accepted.

The philosophical credo of inclusive education is premised on the belief that *all* learners belong in community schools – regardless of their

disability, social background, cultural origin, religion or language. The challenge is to create diversity in the learner population, with equal access for all learners, and to attain quality of life for all learners.

In order to understand the move towards inclusive education, it is important to consider the global contexts and the societal forces that led to this movement. It is also important to understand the way in which attitudes towards individuals with disabilities have changed.

“The inspirational disabled person” emerged as a theme in earlier attitudes towards individuals with disabilities. This phrase indicated a person who was presumed to be deserving pity and sympathy until he/she would overcome the disability by some extraordinary feat (Bauer & Shea, 1999:12). However, in the 1990s people with disabilities started to challenge the professionals who claimed the function of supporting them. The challenge was based on a reluctance to accept the cloak of passive dependency on professionals and a need to question the professionals’ perception of the realities of the disabled person. It was posited that professionals should adapt their training to existing realities for people with disabilities by gathering input from people with disabilities. The “nothing about us, without us”-slogan has since become commonly known, and individuals with disabilities do not need to overcome their disabilities to be inspirational, as they are regarded as active individuals with executive decision-making powers.

This discourse is relevant for the research underlying this article, as it illuminates the background and the philosophical underpinnings of the move towards inclusive education. It also underlines the importance of exploring the nature of the training of teachers working with a learner with a physical disability in their mainstream class. It can no longer be assumed that professionals know what is best for learners with disabilities. There is a need for constant collaboration and communication among all the stakeholders in the inclusion process.

For the purpose of this article the theoretical framework for inclusive education advocated by Engelbrecht (1999:3-10) will be used. She argues for a meta-approach to understand the realities of education in South Africa, thereby incorporating the social context and wider political and ethical efforts into the educational arena. A meta-approach elevates the debate on the movement towards inclusive education above the reductionist thinking that often has a sole focus on the problems of professional practice. A meta-approach advocates contextual analysis and synthesis to incorporate all the systemic and ecological factors that influence the dynamic balance and tensions in an inclusive learning environment. Furthermore Engelbrecht (1999:7) states that inclusive

education goes beyond practical considerations, because it has deep roots in critical and progressive democratic thought. Inclusion is considered to be much more than the physical placement of learners with disabilities in mainstream classes. It is the creation of a learning environment that will respond to the needs of all learners in the classroom.

Even though the purpose and focus of this article need to be clear and precise for the purpose of effective academic discourse, the constructs under discussion are therefore considered in the light of this broader meta-approach to inclusive education. It acknowledges the wider context and the interdependence of contextual systems.

### 3. Underlying philosophical basis and life and world view

This article purports to present some empirical data on the stress levels of teachers who have to include a learner with a physical disability in their mainstream classrooms. However, the underlying philosophical basis and life and world view that influenced the inquiry process is constructivism. (We refer to the illuminating explanations of Lincoln and Guba [2000:163-188] in this regard.) The ontology of this research, and constructivism, is relativist. Reality is socially constructed and therefore multiple mental constructions can be apprehended, some of which may be in conflict with one another. Furthermore, perceptions of reality may change as concepts of disability and minority are socially constructed phenomena that mean different things to different people (Mertens, 1998:11). The epistemology is transactional and subjectivist and the methodology dialectical and hermeneutical. This means that the aim of inquiry is *understanding* the individual reconstructions of reality, i.e. the inclusion of a learner with a physical disability. Democratic values (as discussed in the theoretical and philosophic framework) are regarded as an integral part of the research process and ethics is intrinsic to the process. Constructivism gives preference to multivoice reconstructions of reality and encourages multiple inputs from participants, as is done in this research process. It is both quantitative and qualitative, as is also evident from this research design. Varying constructions are also brought into juxtapositions. Constructivism holds that realities are apprehendable in the form of multiple, intangible mental constructions. The form and content of these constructions are dependent on the individuals or groups who create these constructions. The constructions are socially and experientially based. In the research undertaken we attempted to understand the experiences of teachers who have to include a learner with a physical disability, by acknowledging that these constructions are subjective and socially based.

## 4. Thematic analysis

### 4.1 Teacher stress

Stress and coping in general remain a prominent research focus area – even though the research regarding stress outweighs the research on coping tenfold (Aldwin, 2000:vii). Teacher stress has been investigated since the 1980s (Dunham, 1984; Dworkin, 1987; Cole & Walker, 1989), but the research on teacher stress in inclusive education is still expanding.

There are various issues when attempting to define *teacher stress* (Kyriacou, 1998:4):

- The first issue is whether to use the concept in terms of the level of demands made on the teacher, or whether the term should refer to the emotional state rendered by the demands.
- The second issue relates to the inclusion of both negative and positive demands as stress factors, and subsequently whether both positive and negative emotional states should be referred to.
- The third issue involves the relationship between a teacher's perception of a situation and the perception of her ability to cope with the situation. The circumstances in which a teacher experiences stress imply an objective aspect, but also a subjective appraisal of the teacher's own circumstances.

These issues necessitate a very broad definition of teacher stress that conceives of teacher stress as a reaction to difficult or excessive demands that need to be dealt with. For the purpose of this article *teacher stress* is defined in terms of the environmental demands on the teacher in the context of inclusive education. The focus is on the demands of including a learner with a physical disability, rather than on the emotional state rendered by this demand. The nature of the scale utilised to assess stress enabled teachers to express both positive and negative demands put to them and it also gave them the opportunity to express their perceptions regarding their own ability to cope with the situation.

The stress factors are largely defined in terms of key areas of stress in inclusion, that is: administrative issues, support, health, safety and hygiene, learner behaviour, the classroom situation, parents, professional and personal competency. As stress often results from the disequilibrium between the demands of the environmental situation and the individual's ability to cope with it, it is also acknowledged that individual differences are bound to occur.

An issue that remains unresolved is whether the effects of stress on the individual are cumulative or multiplicative. According to Aldwin (1994:46) most research on stress factors assumes that the effects of stress are cumulative. The assumption is that there is a linear increase in symptoms and negative effect, with incremental increases in stress. However, the effects of stress may very well be multiplicative; therefore the presence of three stress factors may multiply the stress effects by more than a factor of three. In this article it is acknowledged that stress in teachers may very well be *multiplicative*.

## 4.2 Inclusive education

Inclusive education is a seemingly uncomplicated term that is often assumed to be the same in all contexts. Dyson (2001:1), however, argues that there is in fact no commonly accepted notion of inclusion, but rather a range of varieties of inclusion. He identifies inclusion-as-placement, inclusion-as-education-for-all, inclusion-as-participation and social inclusion. In South Africa inclusive education has been a human rights issue on the road to creating a non-discriminatory society. Inclusive education can therefore be defined as a set of broad principles of social justice, school responsiveness and educational equity (Dyson, 2001:1).

Inclusive education involves “the practice of including everyone – irrespective of talent, disability, socioeconomic background, or cultural origin – in supportive mainstream schools and classrooms where all students’ needs are met” (Stainback & Stainback, in Sands *et al.*, 2000: 5). Inclusive education is about the values of community, collaboration, diversity and democracy. It has also been said to be a vision of society, a road to be travelled, but it is an unending road, with all kinds of barriers, some of which are invisible and some of which are in our own heads and hearts (Mittler, 2000:xi). For the purpose of this article we reflect on this “vision of society” as it translates in practice for learners with physical disabilities.

## 4.3 Physical disabilities

Physical disabilities include many types of disabilities that may range from mild to moderate to severe disabilities that may be temporary, permanent or life threatening (Mastropieri & Scruggs, 2000:113). Furthermore it may comprise a wide range of disabilities that include spina bifida, cerebral palsy, cystic fibrosis, juvenile diabetes, spinal cord injuries and HIV/Aids. If limitations exist in mobility, manipulation, the ability to breathe or to acquire nutrition, physical disability is also implicated. Heller *et al.* (1996:36) on the other hand, define physical

disabilities separately from health impairments. Cystic fibrosis, juvenile diabetes and infectious diseases (HIV/Aids) are therefore considered to be health impairments.

For the purpose of this article the term *physical disabilities* is defined to include neuromotor impairments (seizure disorders, cerebral palsy and spinal cord disorders), degenerative diseases (muscular dystrophy, spinal muscular atrophy) and orthopedic and musculoskeletal disorders (limb deficiencies). The final group of teachers who participated in phase two of this study had learners with cerebral palsy, spina bifida, spinal cord injuries and disabilities of mobility and manipulation included in their classroom situation.

## 5. Method

The research underlying this article was conducted in two phases.

*Phase one* consisted of the quantitative part of the study and was conducted in cooperation with 52 teachers who had to complete a questionnaire with 83 questions. The responses were analysed quantitatively.

*Phase two* consisted of individually conducted in-depth interviews with ten of the teachers who participated in phase one of the research study. This qualitative phase of the study was deemed important to gain a more in-depth understanding of teachers' perception of the stressors within an inclusive classroom. The interviews were structured as the completed questionnaire formed the basis of the discussion.

### 5.1 Participants

Teachers from two provinces (Gauteng and the Western Cape) in South Africa participated in this study. The data obtained at the respective Education Departments served as a basis for the purposeful selection of participants. The teachers were selected from schools that were purported to be representative of the whole spectrum of schools currently found in South Africa. The selection criteria utilised for the purposeful selection of the schools were 1) the inclusion of a learner with a physical disability in a mainstream classroom, and 2) schools regarded to be representative of the socio-economic range of schools in South Africa. Therefore, towards the end of the selection process schools that had not yet been represented in the cohort were purposefully selected.

Participants in this study included 52 grade 0 to 12 teachers, including a learner with a physical disability in their mainstream classes. The teachers' ages ranged from 26 years to above 55 years, with most of them between the ages of 26 and 45 years. The participants included 40



South African women and 12 South African men. The total number of years teaching experience of the participants ranged from one to 32 years. Most of the teachers were class teachers and five were deputy principals. In terms of qualifications, most (33) of the participants completed a teaching diploma, 10 completed a bachelor's degree as well as a teacher's diploma, five completed a B.Ed. degree, and four teachers also completed some form of additional qualification, such as Further Diplomas in Education.

The number of learners in the various classes ranged from 14 to 67. The number of learners in the schools ranged between 300 and 1500 learners. The ages of the learners with physical disabilities were between 5 and 18 years.

The number of years teaching experience the teachers had with learners with any impairment in their mainstream classes ranged between one and 22 years. A significant number of participants (13) indicated that they only had one year teaching experience in main stream classes with learners with impairments.

## 5.2 Data collection methods

Measurement issues in stress research abound (Aldwin, 2000:x). The approach to stress measurement is determined by the way in which stress is defined and the nature of the research question at stake. Generally it is important to recognise the difference between trauma and life events when undertaking research on stress factors. In this research *stress* was defined in terms of the demands from the inclusive learning environment that were put on the teachers who participated (see thematic analysis), and this inclusive environment was not considered to be traumatic.

Interviews are purported to be a useful tool to understand stress as a process. However, if interviews are accompanied by lists of stressful events or aspects it may prompt recall even further (Aldwin,1994:67). If something is not mentioned during an interview it is almost impossible to determine whether it is due to the fact that it may not be stressful, or whether the participant does not regard this stress as important enough to mention. The time, effort and manpower necessitated by interviews, however, often limit the samples in a given study.

For this reason the first three parts of the Teacher Stress and Coping Questionnaire (Physical disability) (Forlin, 1998) were used in conjunction with interviews in this research. The TSC-questionnaire relates specifically to stress and coping in inclusive education. The relevant

version (physical disability) of the TSC-questionnaire was adapted for the South African context on the basis of a pilot study (Engelbrecht *et al.*, 2000).

The first three parts of the TSC-questionnaire consist of the following (Forlin, 1998):

*Part A* requests demographic information that focuses on the gender, age, experience, location and training of teachers.

*Part B* considers the class structure and is used to rate each teacher on the potential difficulties of the class based on the number of learners with special needs included in it. This part provides additional information on other learners in the classroom in which the learner with physical disabilities is included.

*Part C* elicits perceptives on the severity of stress for mainstream class teachers who are involved in including a learner with a physical disability in their mainstream classroom. This part contains eight sections that relate to different issues associated with inclusive educational practices.

Responses are recorded on a four-point Likert scale. The degree of stressfulness is scored from one (not stressful) to four (extremely stressful). A separate score is allowed if the stress factor does not apply to the particular participant ("does not apply").

Subsequently, ten teachers (five from the Gauteng Province and five from the Western Cape Province) were selected for in-depth interviews to determine the social and cultural construction of the variables as pointed out in the quantitative phase of the research. Interviews were conducted with the ten selected teachers. The selection criteria utilised for the purposeful selection of the teachers for the interviews were: 1) the representativeness in terms of the socio-economic range of schools in South Africa, and 2) the accessibility for an interview. All interviews were audio-taped to capture responses verbatim, thus reducing the possibility of interviewer influence on the responses. The interviews were then transcribed.

### 5.3 Procedure

Permission to do the research was obtained from the relevant Education Departments. A search was conducted to establish the number of learners with physical disabilities in inclusive classrooms. The Education Departments in Gauteng and the Western Cape were contacted in order to obtain this information.

The schools were purposefully selected in order to obtain information from a variety of schools – from well equipped schools to schools from traditionally black communities. Subsequently, the principals of the particular schools were contacted in order to establish contact with the teachers. Appointments were made to provide a synopsis of the research project, the questionnaire involved and to deliver the questionnaires to the various schools. The participants were assured of anonymity of participation. Collection dates for the completed questionnaires were mutually agreed upon. In some instances the collection of the questionnaire also encompassed further explanations of some aspects of the questionnaire before the teachers completed it.

## 5.4 Analysis of data

The underlying philosophical basis (i.e. constructivism) of this research and the research question contributed to the nature of the data – which was quantitative and qualitative. This necessitated both quantitative and qualitative analysis of the data. Quantitative data analysis allows for the indication of significant stress areas and qualitative data analysis also allows the reader to get a *feel* for the data, and a deeper, more holistic understanding of the nuances involved.

The quantitative data obtained from the 52 questionnaires completed by the teachers were analysed by employing the SPSS computer program for Windows. The transcribed data from the interviews were analysed by utilising the constant comparative method of data-analysis (Maykut & Morehouse, 1994). The data analysis process consisted of the following steps: The transcriptions were read repeatedly in order to come to a holistic understanding of the data. Notes were made of the main ideas that emerged from the data in order to provide provisionally identified categories. The units of meaning were subsequently identified and indicated on the original data source. These units of meaning were then constantly compared to the provisional categories to assess whether they will fit any of these categories. These constant comparisons were done with all the data. New categories were developed where a unit of meaning could not be fitted with a provisional category. In the dynamic process of data analysis patterns were identified among the separate categories, in order to establish the main patterns from the data.

## 6. Results

### 6.1 Quantitative results

The first research aim was to consider each of the 83 items from the quantitative data in order to determine whether the teachers are ex-

periencing significant stress when a learner with a physical disability is included in mainstream classes. Results indicate that none of the 83 potential stressors rendered significant stress in the participants in this study. This is indicated by the fact that the mean for each of the 83 items that may indicate stress was never above 1.92. A mean of 2.5 is considered to be significantly stressful on a four point scale. The five items that rendered most stress (even though not significant) in the participants in this study are indicated in Table 1.

**Table 1**

The most stressful issues for teachers during the inclusion process of a learner with a physical disability (M >1.75\*)

<b>Item</b>	<b>Potential stressor</b>	<b>Mean</b>	<b>Sd</b>
8	Being held accountable for the learner's educational outcomes	1.92	1.12
31	The learner has a short attention span	1.79	1.04
65	Socio-economic disadvantage of the family	1.77	1.23
67	Insufficient pre-service training	1.75	0.97
68	Inadequate in-service training	1.75	0.96

\* Significant stress in a particular area would be indicated by a statistical mean of higher than 2.5. It should be noted than none of the stressors on this scale rendered significant stress (M >2.5) in the participants in this study. This table provides the highest stressors for this group, but it is not regarded as significant stress.

The lack of stress experienced by the participants in this study is indicated by the high number of items (potential stressors) that resulted in a mean of less than 1.5 (M<1.5). Out of 83 items (potential stressors), 63 items rendered a mean below 1.5 ( M <1.5). The potential stressors that indicate the least amount of stress in the participants in this study are indicated in Table 2.

**Table 2**

The least stressful issues for teachers during the inclusion process of a learner with a physical disability (M < 1.2)

<b>Item</b>	<b>Potential stressor</b>	<b>Mean</b>	<b>Sd</b>
1	Record keeping	1.17	0.55
2	Adapting the curriculum	1.13	0.44
17	Obtaining advice from support teacher	1.17	0.55
20	Employing a teacher aide	1.18	0.63
23	Toileting, cleaning the learner	1.19	0.66
24	Feeding the learner	1.10	0.41
25	Lifting or moving the learner	1.10	0.50
27	Administering medication to the learner	1.10	0.36
28	Training an aide	1.08	0.44
40	Learner is over-loving	1.15	0.64
41	Learner is unaware of danger	1.18	0.71
59	Excessive meetings with parents	1.18	0.56
77	Undertaking tasks associated with the learner's condition	1.08	0.34

An investigation was undertaken to establish the relationship between the degree of stress and six independent variables, that is age, gender, total number of years of teaching experience, highest qualification, number of learners in the class and the number of years involved with inclusive education.

To obtain a suitable measure for stress each of the eight categories or scales were treated as separate factors that address different types of potential stressors. These factors related to the following scales: administrative issues (e.g. "record keeping", questions 1 to 11); support

issues (e.g. employing a teacher aide, questions 12 to 22); health, safety and hygiene concerns (e.g. “administrating medication”, questions 23 to 30); learner behaviour (e.g. “has a short attention span”, questions 31 to 50); classroom management (e.g. “time available for other learners”, questions 51 to 57); parents (e.g. “unwillingness of the parents to come to terms with the child’s impairment”, questions 58 to 66); professional competency (e.g. “insufficient pre-service training”, questions 67 to 75); and personal competency (e.g. “responding to the child’s personality”, questions 76 to 83).

Each teacher’s factor scores were determined by calculating the mean level of stress across all items included in the respective factors. Higher scores are related to greater levels of stress. The means of every individual item related to a specific factor was compared to the mean score for that factor. If the mean of the individual item was well below the average mean for that particular factor, the item was deleted. On this basis, ten items were deleted, including two items ( $M = 1.17$ ;  $M = 1.13$ ) relating to administrative issues, two items ( $M = 1.17$ ;  $M = 1.18$ ) relating to support, one item ( $M = 1.08$ ) relating to health, safety and hygiene, two items ( $M = 1.15$ ;  $M = 1.18$ ) relating to learner behaviour, two items ( $M = 1.18$ ;  $M = 1.10$ ) relating to parents and one item ( $M = 1.08$ ) relating to professional competency.

In addition a further eight items were deleted as they request information on “other” issues under the headings of each of the eight factors. Inconsistent responses were recorded at these items. A total of 65 items were included in the final analysis, forming eight factors (administrative issues – nine items; support – eight items; health, safety and hygiene – six items; learner behaviour – sixteen items, the classroom – six items; professional competency – eight items; personal competency – six items and parents – six items). The reliability of these items was measured by using Cronbach’s alpha coefficient. All factors possessed high reliability with alpha coefficients ranging from 0.82 to 0.96.

With the exception of the independent variable of gender, all variables involved at least an ordinal level of measurement. Correlations were used to analyse the relations between the eight factors and the six independent variables. The levels of significance of correlations (Anovas) between the stress-related factors and the independent variables are reported in Table 3.

**Table 3**

Descriptive statistics for eight factors and levels of significance of correlations with independent variables (N=52)

Factors	Descriptives								
	M	Sd	P value	Age	Gender	Years teaching	Qualifications	Number of learners in class	Years in inclusive education
Administrative issues	1.62	0.68	.84	.72	.60	.44	.58	.44	.39
Parents	1.53	0.96	.96	.56	.92	.16	.30	.16	.52
Professional competency	1.46	0.60	.90	.43	.64	.30	.51	.30	.18
Classroom issues	1.39	0.67	.90	.74	.60	.09	.20	.09	.44
Learner behaviour	1.38	0.62	.94	.33	.85	.28	.33	.28	.57
Personal competency	1.37	0.55	.88	.37	.57	.26	.62	.26	.54
Support	1.30	0.51	.84	.24	.94	.81	.65	.81	.79
Health, safety & hygiene	1.17	0.41	.82	.98	.67	.82	.97	.82	.38

Mean range = 1 (not stressful or does not apply); 2 (somewhat stressful); 3 (quite stressful); 4 (extremely stressful).

Based on the average responses to all the 4-point Likert items, the results indicate that teachers were not stressed (M = 1.4) by the experience of including a learner with a physical disability in their class. The means for the eight factors indicate that the most stressful scales for mainstream class teachers during inclusion were those associated with administrative issues (M= 1.62), parents (M= 1.53) and their perceived professional competence (M = 1.46). However, all of these fall well below the mean level that is considered to be significantly stressful (i.e. M >

2.5). Due to the small number of participants in this study, high levels of significance between stress factors and independent variables were not expected. The results indicate that none of the independent variables significantly correlate with any of the stress level factors.

## **6.2 Qualitative results**

Constructivism gives preference to multivoice reconstructions of reality and it depends on a variety of inputs from participants. This principle guided the qualitative data analysis. Three main themes were identified from the qualitative data analysis process. These were also subdivided into sub-categories that related to and supported the main theme. It can be summarised as follows:

### **Lack of stress**

- Treating the learner the same as others
- Ease of physical adaptations

### **Communication**

- Flow of information about the learner
- Limited contact with parents

### **Areas of concern**

- Some extra attention needed
- Perceived inadequate pre-service training

#### **6.2.1 Lack of stress**

The major bulk of the data obtained in this research indicated that the teachers who included a learner with a physical disability in their classroom were experiencing no stress in many instances. This was at first indicated in the quantitative analysis of the data obtained from the TSC-questionnaire, in which an overwhelming amount of “Not stressful” and “Does not apply”-answers were indicated. It was also reflected in statements such as:

- I found that they don't really have any problems with the learner and a lot of these questions I feel is irrelevant.
- I can tell you that this thing of (learner's name) does not affect me at all.
- Ek was nie baie bekommerd oor myself nie.



- Dit is maklik om gestremde leerlinge by die hoofstroom in te skakel mits sy verstandelike vermoë dit toelaat, dan's dit maklik. [ ], daar's geen ekstras nie. Die enigste ding wat ek moes [doen, ek moes] fisies loop van een plek na 'n ander plek waar ek net altyd op een plek gestaan het. Verder het dit niks van my ekstra gevra nie.

The qualitative data analysis related this mainly to two factors: Firstly, the teachers felt that they were *treating the learner the same as others*. These sentiments are reflected in the following statements:

- I treated her the same as the other children.
- I do not find it stressful. I handle her like any person in the class so I don't discriminate at all.
- Want omdat ek ... haar onderrig [het] net soos ek al die ander kinders onderrig het. Sy kon net nie kom waar die ander kinders gekom het nie. Verstaan, sy's skerp, intelligent gewees, jy verstaan. So ek het in geen opsig die leerproses stresvol gevind nie – want sy was soos enige ander outjie.

Secondly, the relative *ease of physical adaptations* also lessened the stress of inclusion. The physical adaptations that may be necessary for the inclusion of learner with a physical disability may provide a challenge to the teachers or the schools. However, the participants in this study did not find this stressful. This is indicated by statements such as the following:

- Die bietjie sement wat gegooi is en trappies wat gelyk gemaak is, was nie regtig 'n probleem nie.
- Ons het vir haar paadjies en relings en goed opgesit nè, maar ek glo nie dit was stresvol nie. Die hoof het dit gedoen sonder om te blik of te bloos.
- Hulle het hortjies gemaak vir die rystoel en dan as hulle in die klas inkom, het haar vriendin die bank weggevat, die bank in die hoek gesit en sy't mos haar eie tafeltjie en as sy weer uit is het sy net weer die bank teruggesit. Dit is al *disruption* wat daar eintlik in die klas was. Maar verder absoluut normaal.

### 6.2.2 Communication

Much of the stress that was experienced by the participants in this study related to the communication processes about the inclusion of the learner with a physical disability. Two subcategories were identified in this regard: Firstly, the *flow of information about the learner* as reflected in the following statements.

- I have received no information about him.
- A little bit stressful, because I could not get information about her disability. The information I received from the other teachers were incomplete.
- I do need information so that I can know what to do with the child.

The following statements also refer to the *flow of information* about the learner with a physical disability. These statements highlight the individual experiences of stress by the various teachers. It was evident that some teachers took the responsibility of obtaining relevant information about the learner with a physical disability upon themselves:

- I know a bit about spina bifida and I read up about her and the problem so it was not stressful.
- Ons hoof was baie *supportive* en ons het ook onder mekaar gesels.

Secondly, *limited contact with parents*, as reflected in the following statements:

- Quite stressful, I am telling you. There was times when I made the appointments and no one pitched.
- I would like to meet the parents, because I would like to learn more about the learner.

However, this was not a sentiment that was shared by all the teachers in this study. Some of them experienced no or minimal stress because of effective communication with the parents. In addition, the general flow of information about the learner with a physical disability was effective. This finding is reflected in statements such as:

- Her parents was [sic] here and told me she suffers from brittle bone and that we must be careful that the learner does not get hurt, because otherwise the learner lies in the hospital for a while. The children in the class are very protective, but for me it was not stressful.
- I had all the information and the parents were very supportive.
- Ek het ... die ouers [nagal baie] gesien.
- The parents came to the principal and we sorted out the matter ...

### 6.2.3 Areas of concern

This theme, that emerged as a main theme from the data analysis process, could not confidently be conceptualised as a stress area, due to the overall lack of stress experienced by the participants in this study.

However, some pockets of concern did emerge. Two sub-categories were identified in this regard: 1) *Some extra attention needed*, and 2) *perceived inadequate pre-service training*.

The fact that the teachers perceived the learner with a physical disability as in need of some extra attention did emerge from statements such as the following:

- There are certain times when she needs my attention, but not always.
- ... because he seeks attention and there are many children, and I can't concentrate on him all the time.
- Ek het geweet wat is haar vermoë, maar ek het nie geweet wat het sy onder die knie en wat nie. [ ]. Hoe ver terug moet jy werk? Hoeveel tyd spandeer jy aan haar?
- Like I said, there is nothing really wrong mentally with him, but I feel that I can't spend all my time with him.

Many of the participants in this study expressed the perception that their pre-service training was inadequate to prepare them for the inclusion of the learner with a physical disability in their mainstream classes. This is reflected in statements such as:

- No, I feel that the training was not enough, because the first time she came into the class I asked myself how would I handle the situation.
- ... sometimes I do not know how to handle the situation (*in response to a question on pre-service training*).
- Mens het net meer kennis [nodig] oor wat om in so 'n situasie te ver wag en hoe om dit te hanteer. Dis maar al, want ons het nog nooit so iets gehad nie.

## 7. Discussion

This research supports the notion that learners with physical disabilities seem to be relatively easily included in mainstream classes, in that the stress it causes teachers seems to be limited and in many instances non-existent. Furthermore, the research undertaken aimed to determine the stress that teachers experience while including a learner with a physical disability by considering it in the terms of a meta-approach (Engelbrecht, 1999:3-10) to inclusive education. The underlying philosophical basis of constructivism that indicated the life and world view taken by the researchers in this study implies that the aim of the inquiry process is to *understand* the individual reconstructions of reality, in this instance that of including a learner with a physical disability. We have thus come to

understand that this process is not significantly stressful for the participants in this study. However, constructivism also holds that these constructions are dependent on the individuals who create these constructions – thereby providing us with a window of insight into the constructions of *these participants*, but not necessarily those of others.

However, educationists from different countries, with different education systems, different educational, social and cultural traditions and different definitions of “special educational needs” seem to agree that inclusive education is *the way forward* (Dyson, 2001:1). The democratic values embedded in the meta-approach to inclusive education is an integral part of this research process. This leaves us with the question about what inclusion *implies* – a question that leaves a verisimilitude of many avenues to be explored in research. This article attempted to explore one of these avenues.

The format of the TSC questionnaire, together with the use of interviews, allowed for the exploration of all the relevant stress areas when including a learner with a physical disability. The limited number of participants (52) in the study does not allow for generalisations to the broader context, but it does allude to some important themes that may be noted. Readers may therefore associate with some of the themes and apply them to their own contexts. In answering the original research questions posited in this research, the following can be said:

The nature and the severity of the stress factors involved in the inclusion of a learner with a physical disability in a mainstream class in South Africa seem to be congruously low or non-existent. Some popular misperceptions about the inclusion of such a learner are also refuted by the results from this study. For example, the participants in this study did not find the undertaking of tasks that are associated with the learner’s disability, or lifting or moving the learner, stressful at all. It is also significant that even the most stressful issues (administrative issues, parents and professional competency issues) fall well below significant stress levels.

When referring to Table 2 it is self-evident that many potential stress factors are not applicable to the participants in this study. This is also evident from an analysis of the qualitative data.

The qualitative data yields the following aspects that may be considered: Communication about the learner with a physical disability is a potential area of stress and needs to be an important aspect of the inclusion process. The slight concerns about the amount of extra attention needed by a learner with a physical disability may indicate that alternative

sources of support (peer tutoring) for the learner with a physical disability may be preventative in terms of potential teacher stress. Concerns about inadequate pre-service training allude to the ever-changing challenges of effective teacher training. However, the *extent* of all of these stress factors seems to be limited.

Due to the overwhelming amount of “Not stressful” and “Does not apply” responses by the participants in this study it is easy to conclude that the inclusion of a learner with a physical disability does not render significant stress in the teachers. However, it was also initially stated that the effects of stress on the individuals in this study are regarded as being *multiplicative*, instead of merely cumulative. Should the latter be assumed, it would follow that these participants are not regarded as being overly stressed. Therein lies great danger. Whereas the positive responses of the participants in this study are heartening in terms of the future for effective inclusion of learners with physical disabilities, it does not mean that these teachers are not in need of support. Indeed, the perception should be avoided that the perceived ease with which a learner with a physical disability is included, would put the teacher who includes a learner with a physical disability, at the lower end of the priority list for support. If the effects of these stress factors are multiplicative, the stress factors indicated in this study may indeed render stress that may be significant – particularly if individual differences in the experience of stress are considered.

One of the most complicated issues in determining causal directionality in stress research is the reciprocity between stress and personality. Different individuals react differently to stress. The range of their coping strategies also differs. What may be easy for one teacher, may be insurmountable to the next. This notion is also evident in and supported by this research. Stress factors indicated by some teachers were counter-indicated by others. This subjectivity is illustrated in the way in which the qualitative data analysis juxtaposes some of the constructions of the participants. These differences may relate to the differences between individual experiences, but it may also relate to the different learners and the different teaching environments in which a teacher has to include a learner with a physical disability. The philosophical basis of constructivism that underpins this research, holds an epistemology that is transactional and subjectivist, thereby accounting for the individual differences in constructions of reality.

This research attempts to make a contribution to the broader cadre of knowledge on stress in teachers in inclusive education, but it specifically aims to contribute to the uniquely *South African* experience of including a learner with a physical disability. Teachers who have taught in a whole

range of South African schools participated in this study. It has often been said that inclusion would never work in South Africa, because of large class sizes and untrained teachers. The results from this research indicate that inadequate pre-service training needs to be addressed and collaborative communication needs to improve. The implicit message from the low stress levels reported in this study, however, indicates that teachers *are* coping with learner with a physical disabilitys in their classrooms.

## 8. Conclusion

Within the broader meta-approach to inclusion, this study provides support for the continuation of this unending road of inclusive education, where all learners are included in the mainstream of education. In this way, all learners may become contributive members of a society in which discrimination and exclusion in any disguise can be eradicated.

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