

# Inclusion: identifying potential stressors for regular class teachers

**Chris Forlin**, School of Education, Edith Cowan University, Churchlands, Western Australia

---

## Summary

This research investigates the potential stressors for teachers during inclusion. The study reports findings from 571 Queensland primary school teachers who were involved with including a child with a moderate or severe intellectual disability in their regular classrooms. Teachers who responded to the *Teacher Stress and Coping Questionnaire* (TSC) did not appear to be overly stressed by inclusion. Issues that related to a teacher's professional competence and the behaviour of the child with the intellectual disability were the most stressful for teachers. Female teachers reported greater stress than their male counterparts when coping with classroom issues. An increase in number of years involved with inclusion and participation in formal training were associated with a reduction in stress. Discussion focuses on the need to identify potential stressors during inclusion to enable more appropriate preservice and inservice training and support to be provided.

*Keywords:* special education, inclusion, stress, teachers

---

## Introduction

During the past two decades, there has been a slow but consistent movement across all states and territories in Australia towards the inclusion of children with mild to severe disabilities in regular classrooms (Ashman and Elkins, 1998; Forlin, 1997). Unlike the situation in the USA and the UK, there is no legislated approach to inclusion in Australia and, consequently, policies regarding inclusion vary considerably between jurisdictions (Foreman, 1996; Forlin and Forlin, 1998). All states and territories generally retain a continuum of services which range, in most cases, from placement in separated special schools to full

---

**Address for correspondence:** Dr Chris Forlin, School of Education, Edith Cowan University, Pearson Street, Churchlands, WA 6018, Australia. Tel: 61 89273 8512; Fax: 61 89273 8705; E-mail: c.forlin@ecu.edu.au

inclusion in regular classes. In some regions, usually due to geographic isolation, there have always been a higher number of children with special needs included in their local schools. There is little doubt that such a philosophical change in the education of children with special needs has impacted on the role of the regular class teacher in Australia (Ashman and Elkins, 1998; Casey, 1994; Ward, Center and Ferguson, 1988).

Simultaneously with this movement towards inclusion in Australia, there have been many other major educational changes that have also altered the role of the regular class teacher. Teaching has become considerably more multifaceted, with greater responsibility being devolved to schools and individual teachers (Forlin and Forlin, 1996). Many states and territories have reorganized their educational systems to become less centralized and to allow for greater involvement in decision-making to occur at the school level. Such devolution of responsibility has led internationally to teaching becoming noticeably more complex, with sophisticated judgement being required by teachers and a large increase in their involvement in collective decision-making (Hargreaves and Goodson, 1996). This has resulted in intensified expectations for teachers including increased accountability and greater personal involvement in educational reform and overall school improvement (Fullan and Hargreaves, 1991). Although teachers are increasingly being required to cater for children with disabilities in their classrooms, there is grave concern that they still continue to focus mainly on the typically achieving students rather than those with special needs (Clark *et al.*, 1997).

Paralleling these changes there have been an increasing number of researchers reporting that teachers are experiencing psychological and physiological symptoms of stress (Chen and Miller, 1997; Farber, 1991; Wisniewski and Gargiulo, 1997). In particular, several Australian studies have reported that teachers are experiencing high levels of occupational stress (Bourke and Smith, 1994; Dinham, 1993; O'Connor and Clarke, 1990; Otto, 1986; Pithers and Fogarty, 1995; Punch and Tutteman, 1990). It is, however, not the actual stressor that induces stress in a teacher, but the way they react and adapt to demands and threats that determine the significance of them as potential stressors (Bernard, 1990).

## **Research on potential stressors**

Considerable research has recorded the correlates of stress for teachers, and the extent to which teachers experience potential stressors in their work (e.g. Chen and Miller, 1997; Wisniewski and Gargiulo, 1997). A detailed analysis undertaken of 72 research studies published between 1980 and 1993 identified 24 common potential stressors for teachers (Forlin, 1995). These were classified into three general clusters of stressors: administrative, classroom-based and personal. The specific administrative stressors of workload, time management and a lack of general support were recorded most frequently in the studies as pervasive for teachers. The most stressful administrative issues for teachers included those that were perceived as interfering with a teacher's instruction time, including increasing amounts of paperwork, extracurricular demands and interpersonal conflicts. Specifically, work overload was considered by Farber (1991) to be a major problem for teachers trying to prioritize the allocation of their time to be spent with either one or two children with special needs or with the majority of the class.

The most pervasive of the potential classroom stressors were those that

involved direct contact with students. Disruptive behaviour and a lack of student discipline were rated more often by teachers as potential stressors than were students' abilities or a lack of materials or a suitable curriculum. Only two of the 72 studies (Fitzwater, 1986; Walker and Gray, 1989) specifically reported teachers' attributions for coping with students with special needs in regular classrooms as a potential stressor. Two further studies undertaken in New South Wales in 1989 and 1992 have been reported recently by Bourke and Smith (1994). They found that items in their *Teaching Scale* that were associated with increased workload over a three-year period included those that pertained to assisting individual students and particularly those with special needs.

An international review of the literature on teacher stress reported by Chen and Miller (1997) highlighted similar issues. Organizational stressors, such as time constraints, workload, role conflict, role ambiguity and administrative bureaucracy, were all cited as stressful. Stressful classroom issues included a lack of resources, class size and student discipline. In addition, younger and less experienced teachers reported greater stress. Pithers and Soden (1998) have also reported similar results with Australian vocational teachers experiencing relatively high stress levels associated with work overload. Wisniewski and Gargiulo (1997), identifying four major areas of stress, undertook a further critique of existing literature that focused on special education teachers. Organizational issues included various workload problems that related to insufficient planning time and the excessive amount of time necessary to prepare for individual student needs, demands for accountability and excessive paperwork. Professional interactions with school personnel, parents and regular class teachers when endeavouring to bring about inclusion were all sources of stress. A lack of appropriate professional training was the third area cited. This was particularly related to teachers being required to implement new practices with inadequate ongoing training and without necessary organizational resources. Difficulties in meeting the needs of an increasingly diverse special education population were also a source of stress.

While it is possible to argue that the general potential stressors identified in these studies may be applicable to the specific situation of inclusion, this applicability is limited. In order for research into potential stressors for inclusion to be diagnostic as well as informative, it is necessary to narrow the context in which educators respond to their perceptions of stress. The following study therefore aims to consider the effect of potential stressors on teachers related to the specific situation of including a child with a moderate or severe intellectual disability in a regular classroom.

## Method

### *Instrument*

A measuring instrument, the *Teacher Stress and Coping Questionnaire*, was developed based on focus group interviews with 17 regular primary class teachers and teaching principals from 13 schools within one region in Queensland (see Forlin, 1998, for analysis of the interviews). These teachers had at least one child in their regular class who had been ascertained as needing support for an intellectual impairment (*impairment* is the term used by Education Queensland) at Levels 4, 5 or 6 (moderate to severe impairment).

The *Teacher Stress and Coping Questionnaire* (TSC) contains four parts. Part A

requests general information on external variables including demographic details of the school and personal teaching data. Part B seeks information about children with special needs in the teacher's class related to ascertainment, support personnel and at-risk children. Part C lists potential stressors associated with inclusive education. Part D includes a range of coping strategies employed during inclusive education.

This research paper reports the findings of Part C related to potential stressors for teachers during inclusion. Teachers were required to respond to the degree to which they perceived various issues as stressful. The TSC employed a four-point Likert scale ranging from *Not stressful* (1), *Somewhat stressful* (2), *Quite stressful* (3), to *Extremely stressful* (4). In addition, respondents were given the opportunity to indicate that an issue *does not apply*. A total of 75 issues were raised covering eight categories of potential stressors (administrative, support, health and safety and hygiene, student behaviour, the classroom, parents, professional competency and personal competency). An additional item was included at the end of each category for 'other' issues.

Questionnaires were distributed in 1998 to all regular class teachers in government primary schools in Queensland who were identified by Education Queensland as having at least one child in their classroom who had been ascertained as requiring support for a moderate or severe intellectual disability.

## Results

Completed questionnaires were received from 571 teachers across all regions in Queensland. Approximately 79 per cent were female teachers. Almost one-third were working in multi-age classrooms, with 89 per cent being classroom teachers (the remainder were mainly teaching principals or key teachers). Nearly 92 per cent of teachers were working in schools that were within 50 km of a special school or special education unit. Only 3 per cent of teachers were greater than 150 km from such a facility.

The majority of teachers (66 per cent) were in the age range from 26 to 45, with 10 per cent being less than 25 years and a further 23 per cent being older than 46 years. With respect to the highest qualification held by these teachers, 45 per cent held a BEd, with 26 per cent having a graduate diploma, 16 per cent a teaching certificate, 1 per cent an MEd and 12 per cent reporting 'other' qualifications. Of the total sample, only 34 per cent had been involved with inclusion for longer than three years. The mean number of years' teaching was 14 years. The great majority of teachers (71 per cent) had received no formal training for teaching children with special needs.

The first research aim is to consider each of the 75 items in order to determine the specific issues that cause teachers most stress and those that are the least stressful for them during inclusion.

### *Most stressful issues for teachers during inclusion*

Seven items are identified that teachers report to be the most stressful ( $M = >2.49$ ). These items relate closely to two areas, namely the teacher's perceived self-competence and the behaviour of the child (see Table 1).

Competence issues include teachers' concerns for their inability to teach other children in the class while they are focusing on the child with the disability and on the need to provide an appropriate educational programme for the child.

**TABLE 1 The most stressful issues for teachers during inclusion**

Item	Potential stressor	Mean	SD	N	
				(Issue applies)	(Does not apply)
74	Reduced ability to teach other students as effectively	2.74	1.12	492	66
8	Being held accountable for the child's educational outcomes	2.58	1.03	534	25
45	The child physically attacks others, e.g. hits, bites	2.53	1.11	243	320
70	Sustaining an active learning environment for the child	2.53	0.98	547	17
55	Difficulty in monitoring other students when attending to the child	2.51	1.08	535	25
43	Disturbs others	2.49	1.08	407	156
54	Time available for other students	2.49	1.06	543	21

Note:

Mean range = 1 (*Not stressful*); 2 (*Somewhat stressful*); 3 (*Quite stressful*); 4 (*Extremely stressful*).

Eighty-nine per cent of teachers believe that their ability to teach other students as effectively as they would like is reduced by having a child with an intellectual disability in the class and that this is quite stressful for them. Difficulty in monitoring other students while attending to this child is also stressful for 96 per cent of teachers. Actual time available for other students is a further stressor. In almost every instance, teachers consider that they are personally held accountable for the child's educational outcomes and responsible for sustaining an active learning environment for the child. Approximately 66 per cent of teachers were highly experienced having been teaching for at least 10 years, although the majority (65 per cent) had only been involved with inclusive education for three years or less. Their initial commitment to teaching therefore would have involved a larger number of regular class children. Inevitably, this commitment to the majority of students may linger when faced with inclusive practices that could be considered as a potential threat to their previous way of teaching.

These issues may also be related to teachers' concerns regarding their perceived lack of appropriate training to meet the needs of a child with a disability. The great majority of teachers considered their lack of suitable training to be stressful. Eighty-nine per cent perceived they had received inadequate preservice training (Mean stress level = 2.32); 91 per cent considered inservice training to be inadequate regarding the child's specific disability (Mean stress level = 2.36); and 92 per cent proposed that inservice training in meeting the needs of the child was also inadequate (Mean stress level = 2.43).

The second area of greatest stress to teachers during inclusion was the actual behaviour of the child with the disability. Over 70 per cent of teachers reported that the child disturbed others in the class. More disconcertingly, 43 per cent of teachers indicated that the child actually physically attacked others, for example, hitting or biting them, and this was deemed quite stressful for the teachers.

#### *Least stressful issues for teachers during inclusion*

The least stressful issues for teachers ( $M < 1.75$ ) during inclusion are included in Table 2. A large number of these issues relate to interactions with the child's

**TABLE 2 The least stressful issues for teachers during inclusion**

<i>Item</i>	<i>Potential stressor</i>	<i>Mean</i>	<i>SD</i>	<i>N</i> <i>(Issue applies)</i>	<i>N</i> <i>(Does not apply)</i>
60	Parent(s) in the classroom	1.44	0.79	183	379
1	Obtaining relevant information about the child	1.49	0.71	512	44
78	Empathizing with parent(s)	1.50	0.81	421	138
64	Parent/teacher tension	1.54	0.87	204	358
58	Limited contact with parent(s)	1.56	0.83	363	199
27	Administering medication	1.58	0.85	69	494
59	Excessive meetings with parent(s)	1.61	0.94	203	360
37	Is withdrawn	1.63	0.83	246	316
24	Feeding the child	1.64	0.92	34	528
18	Allocation of ST(LD) support	1.67	0.88	298	199
82	Meeting parent expectations	1.68	0.89	457	102
17	Allocation of AVT support	1.69	0.91	287	226
20	Employing a teacher aide	1.69	0.99	227	331
79	Responding to the child's personality	1.73	0.94	530	33

*Note:*

Mean range = 1 (*Not stressful*); 2 (*Somewhat stressful*); 3 (*Quite stressful*); 4 (*Extremely stressful*).

parent(s). Approximately 33 per cent of parents participate to some degree in their child's classroom, although this is not considered to be stressful for teachers. Although 65 per cent of teachers report that they have limited contact with parents, and conversely 36 per cent report that they have an excessive number of meetings with parents, neither of these issues is considered stressful. The issue of parent-teacher tension is reported by 36 per cent of teachers. A further 82 per cent of teachers indicate that they are involved with meeting the parents' expectations for their children, and the majority of teachers indicate that they need to empathize with parents, but none of these issues is deemed to be stressful.

The majority of teachers report that the allocation of Advisory Visiting Teacher (AVT) and Support Teacher (Learning Difficulties) (ST (LD)) support is an issue for them, and 41 per cent are also involved with employing a teacher aide; however, these tasks are not stressful for them. Obtaining relevant information about the child is an issue for almost all of the teachers although not stressful. Very few teachers are involved with feeding the child, and when involved this is not considered stressful. Responding to the child's personality is seen to be an issue for 94 per cent of teachers, and even though this is more stressful than some other issues, it is also not overly stressful in general.

### *Relationship between stress and independent variables*

The second research aim concerns the investigation of the relationship between degree of stress and seven independent variables, namely age, gender, total number of years teaching, highest qualification held, number of children in the class, number of years involved with inclusion, and formal training for children with special needs.

To obtain a suitable measure for stress each of the categories is treated as a

separate factor that addresses different types of potential stressors. These factors relate to: 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. 'administering medication', questions 23 to 30), student behaviour (e.g. 'has a short attention span', questions 31 to 50), classroom management (e.g. 'time available for other students', 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).

As the questionnaire involved the use of censored data, the number of teachers responding to degree of stress varied considerably between the items, depending on whether the stressor actually applied to them or not. To ensure that a maximum number of responses were employed in the analysis data were re-coded to combine responses recorded as *Not stressful* with responses recorded as *Does not apply*. Each respondent's factor scores were determined by calculating the mean level of stress across all items included in the respective factors. Higher scores are associated with greater levels of stress. As there were a very limited number of responses to questions relating to health, safety and hygiene, this category was deleted from further analysis.

Calculating correlation coefficients between individual items and the mean factor score assessed internal reliability. All items that involved coefficients below 0.50 have been removed from the analysis. On this basis, seven items were deleted including four items relating to student behaviour, one item relating to administrative issues and two items relating to parents. In addition, a further eight items have been deleted as they request information on 'other' issues to be identified by teachers, and therefore report inconsistent responses. A total of 61 items are included in the final analysis, forming seven factors (Administration, nine items; the Classroom, six items; Student behaviour, 15 items; Professional competency, eight items; Personal competency, seven items; Support, 10 items; and Parents, six items). Reliability of these factors was measured using Cronbach's alpha coefficient. All factors possessed high reliability with alpha coefficients ranging from 0.82 to 0.94.

With the exception of the two independent variables of gender and involvement in special needs training, all variables involved at least ordinal level of measurement. Correlations were used to analyse the relations between the seven factors and the seven independent variables. Correlations between the stress-related factors and the significant independent variables are reported in the matrix in Table 3.

Based on the average responses to all of the four-point Likert items, the results indicate that teachers are not overly stressed ( $M = 1.78$ ) by the experience of including a child with an intellectual disability in their class. The means for the factors indicate that the most stressful categories for regular class teachers during inclusion are those that are associated with their perceived professional competence ( $M = 2.22$ ), together with administrative issues ( $M = 1.98$ ), and issues relating to the classroom ( $M = 1.97$ ).

The internal consistency reliability estimates for the seven factors are mostly in the moderate to low range. With such a reasonably large sample size, however, correlations of  $> 0.09$  with the independent variables are significant ( $p < 0.05$ ). The independent variables of age, number of years teaching and qualifications all had very low correlations of  $< 0.06$  with all seven factors. The variable that

**TABLE 3** Descriptive statistics for seven factors and correlations with independent variables (N = 571)

Factor	Mean	SD	Alpha	Gender	Years involved	Formal training
1 Professional competency	2.22	0.79	0.90	0.09*	-0.09*	-0.14**
2 Administration	1.98	0.67	0.86	0.01	-0.04	0.03
3 The classroom	1.97	0.76	0.86	0.09*	0.03	0.03
4 Student behaviour	1.74	0.72	0.94	0.02	0.04	0.03
5 Personal competency	1.62	0.59	0.81	0.07	-0.02	0.03
6 Support	1.58	0.53	0.82	-0.03	-0.04	0.01
7 Parents	1.39	0.57	0.82	0.06	-0.06	-0.04
Total mean	1.78	0.52				

Notes:

\*p < 0.05; \*\*p < 0.01.

Mean range = 1 (Not stressful or Does not apply); 2 (Somewhat stressful); 3 (Quite stressful); 4 (Extremely stressful).

considered the number of children in a class had slightly higher correlations, mostly above 0.06, although these are not significant.

The independent variable of gender is related to two factors, namely classroom issues and professional competency. Classroom issues include management of interpersonal relationships between peers, time available for, and the monitoring of, other students when attending to the child with the intellectual disability, and whole-class teaching being disrupted by the child. Professional competency issues relate to the appropriateness of a teacher's own training for inclusion, their ability to meet the specific needs of the child, and their reduced ability to teach other students as effectively as they would like. In both of these areas, female teachers are more likely to experience greater stress than their male counterparts.

The category of professional competence is related to the number of years a teacher has been involved with inclusion and whether they have received any formal training in children with special needs. In these instances, greater involvement with inclusion and participating in formal training are associated with less stress.

## Discussion

This research identifies how stressful a range of issues are for regular class teachers who have a child with a moderate or severe intellectual impairment in their classroom. Although teachers report some aspects of inclusion to be stressful, the general view is that in broad terms inclusion is only *somewhat stressful* for the regular class teacher.

The most stressful issues for regular class teachers during inclusion relate to two categories of stressors. The first is that of teachers' perceived professional competence. The highest levels of stress appear to come from a teacher's personal commitment to maintaining effective teaching for all children in their classes. It is evident that this supports the findings of Clark *et al.* (1997), that these teachers are still focusing heavily on the needs of the mainstream children. They are particularly stressed by concern that the education of the majority of children is not affected by their need to focus on the child with a disability. They

also consider that being held accountable for the child's educational outcomes and sustaining an active learning environment for the child are stressful issues.

Similar to the findings of Farber (1991), levels of stress are, however, ameliorated the longer teachers have been involved with inclusion and by undertaking formal training in teaching children with special needs. Considering approximately 70 per cent of these teachers had received no formal training, this is an issue that needs to be addressed. Long-term training will undoubtedly be rectified by the trend in Australia towards including compulsory units of work on children with special needs in preservice training courses, as has already happened in NSW. The flow-through of this training, though, is likely to take some time before it is seen in schools. In the meantime, schools should focus on providing relevant inservice training for teachers in the area of disability. With the move towards decentralized planning and concomitantly a greater delegation of funding control to schools, such planning for inservice training can now be better designed to meet the specific needs of teachers within individual schools. Being able to identify the specific issues that teachers are finding stressful during inclusion enables more appropriate preservice training courses and more relevant inservice training to be developed for teachers. Care should also be given to the findings that female teachers report significantly greater stress than their male counterparts when coping with classroom issues and with threats to their perceived professional competency.

The second most stressful category relates to the behaviour of the child with the disability. Disruptive behaviour within the classroom has been rated previously as one of the most stressful classroom issues for teachers (Forlin, 1995). This is certainly the case in this research regarding the behaviour of children with moderate or severe intellectual disabilities. When the child disturbs other children or physically attacks them, which seems to occur in many of the cases, teachers report increased stress. Previous studies have linked disruptive behaviours of children with lower acceptance by teachers (Conway and Foreman, 1988). This research indicates that over 40 per cent of children with intellectual impairments, who are included in regular classes in Queensland, are involved in physically abusing their peers. This is unlikely to help teachers become more accepting of inclusion. Urgent consideration should be given to addressing the apparent poor social skills of a relatively large number of children with intellectual disabilities who are included in regular classes, and in particular those who reputedly physically attack others.

## Conclusion

Being able to identify the specific issues that are causing teachers stress during inclusion enables more appropriate training and support to be provided to assist teachers. The potential stressors that have been identified in this research are well within the realms of being addressed at a school level. If inclusion is to continue to gain momentum and teachers are to be able to cope without increasing their stress levels, then focused attention needs to be given to the key issues that teachers rate as most stressful. These issues could be addressed by improved preservice and inservice training and greater emphasis on addressing the social skills of the children with moderate to severe intellectual disabilities who are now being included in regular classes.

## References

- ASHMAN, A. and ELKINS, J. (Eds) (1998). *Educating Children with Special Needs*. Third edn. Sydney: Prentice-Hall.
- BERNARD, M. E. (1990). *Taking the Stress out of Teaching*. Victoria: Collins Dove.
- BOURKE, S. and SMITH, M. (1994). Quality of teachers' professional lives: teacher stress, workload and satisfaction. Paper presented at the Annual Conference of the Australian Association of Research in Education, Newcastle, NSW, Australia, November.
- CASEY, K. (1994). *Teaching Children with Special Needs*. Wentworth Falls, NSW: Social Science Press.
- CHEN, M. R. and MILLER, G. (1997). *Teacher Stress: A Review of the International Literature*. ERIC Document 410 187.
- CLARK, C., DYSON, A., MILLWARD, A. and SKIDMORE, D. (1997). *New Directions in Special Education: Innovations in Mainstream Schools*. London: Cassell.
- CONWAY, R. N. F. and FOREMAN, P. J. (1988). 'Mainstreaming students with behaviour difficulties'. In: ASHMAN, A. F. (Ed) *The Exceptional Child Monograph* No. 1, pp. 229–35. Australia: University of Queensland Press.
- DINHAM, S. (1993). 'Teachers under stress', *Australian Educational Researcher*, **20**, 3, 1–14.
- FARBER, B. (1991). *Crisis in Education: Stress and Burnout in the American Teacher*. San Francisco, Calif.: Jossey-Bass.
- FITZWATER, J. (1986). Victorian Teachers Union survey on teacher stress. Unpublished manuscript, VTU, Camberwell, Victoria.
- FOREMAN, P. (1996). *Integration and Inclusion in Action*. Sydney: Harcourt Brace.
- FORLIN, C. (1995). Concerns and beliefs about inclusive education: appraisal of stress and coping. Unpublished manuscript, University of Western Australia.
- FORLIN, C. (1997). 'Inclusive education in Australia', *Special Education Perspectives*, **6**, 1, 21–6.
- FORLIN, C. (1998). 'Inside four walls', *Australasian Journal of Special Education*, **22**, 2, 96–106.
- FORLIN, P. R. and FORLIN, C. (1996). 'Legal frameworks for devolution in regular and special education', *Australian Journal of Education*, **40**, 2, 177–89.
- FORLIN, P. R. and FORLIN, C. I. (1998). 'The constitutional and legislative framework for inclusive education in Australia', *Australian Journal of Education*, **42**, 2, 204–17.
- FULLAN, M. G. and HARGREAVES, A. (1991). *Working Together for Your School*. Victoria: ACER.
- HARGREAVES, A. and GOODSON, I. F. (1996). 'Teachers' professional lives: aspirations and actualities.' In: GOODSON, I., and HARGREAVES, A. (Eds) *Teachers' Professional Lives*. London: Falmer Press, pp. 1–27.
- O'CONNOR, P. R. and CLARKE, V. A. (1990). 'Determinants of teacher stress', *Australian Journal of Education*, **34**, 1, 41–51.
- OTTO, R. (1986). *Teachers under Stress*. Melbourne: Hill of Content.
- PITHERS, R. T. and FOGARTY, G. J. (1995). 'Symposium on teacher stress: occupational stress among vocational teachers', *British Journal of Educational Psychology*, **65**, 1, 3–14.
- PITHERS, R. T. and SODEN, R. (1998). 'Scottish and Australian teacher stress and strain: a comparative study', *British Journal of Educational Psychology*, **68**, 269–79.
- PUNCH, K. F. and TUTTEMAN, E. (1990). 'Correlates of psychological distress among secondary school teachers', *British Educational Research Journal*, **16**, 4, 369–82.
- VLACHOU, A. and BARTON, L. (1994). 'Inclusive education: teachers and the changing culture of schooling', *British Journal of Special Education*, **21**, 3, 105–7.
- WALKER, R. A. and GRAY, T. (1989). Sources of stress and symptoms of burnout amongst itinerant and mainstream teachers of visually and acoustically disabled

---

students. Paper presented at the Annual Conference of the Australian Association for Research in Education, Adelaide, November.

- WARD, J., CENTER, Y. and FERGUSON, C. (1988). 'Integration of children with disabilities: design of a naturalistic study.' In: ASHMAN, A. F. (Ed) *The Exceptional Child*. Monograph No. 1. Brisbane: University of Queensland Press, pp. 249–59.
- WISNIEWSKI, L. and GARGIULO, R. M. (1997). 'Occupational stress and burnout among special educators: a review of the literature', *Journal of Special Education*, **31**, 3, 325–46.