South African Journal of Education Copyright © 2003 EASA Vol 23(4) 287 – 291

# Managing teacher turnover

### Mgadla Isaac Xaba

School of Educational Sciences, Potchefstroom University, Vaal Triangle Campus, P.O. Box 1174, Vanderbijlpark, 1900 South Africa opwmix@puknet.puk.ac.za

Concerns about educator turnover and attrition are reported widely as a global phenomenon. Turnover translates, amongst other things, into shortages in educator supply, costs in recruitment, training and mentoring, poor learner performance due to disruption of planning programmes and continuity, as well as overcrowded classes. This poses a challenge to the education system to manage turnover and retain teachers. This is critical to the future of quality education delivery, especially in the light of changes in the system generally and the demands placed on it to deliver education in line with the country's socio-economic expectations. A teacher turnover and retention strategy that addresses the sources thereof is therefore essential. This article draws attention to the phenomenon of teacher turnover, makes recommendations for the management thereof by education departments in the country, and is a first step towards comprehensive research into teacher turnover in South Africa.

### Introduction and problem statement

Concerns about educator turnover and attrition are reported widely as a global phenomenon. In Britain, educator attrition is reported as a national crisis (BBC News Online, 2001; BBC News, 2001). Santiago (2001) reports that the situation is worsening in Sweden, Germany and New Zealand. In the USA, teacher shortages as a result of turnover are widely reported in many states (Markley, 2001; Rohr & Lynch, 1995; Colbourne, 1998; Ingersoll, 2002). The Canadian Teachers' Federation (1999) reports on teacher shortages resultant from teacher attrition in Ontario and Australia.

In most African countries, the phenomenon of teacher turnover is associated mainly with the HIV/AIDS epidemic, especially in sub-Saharan countries like Zambia, Kenya, Nigeria, the Central African Republic and South Africa (Coombe, 2002:3). The President of the Gambian Teachers' Union reports a massive exit of teachers from the profession due to, amongst other reasons, a lack of adequate salaries, allowances, housing and promotion (Kamara, 2002). Mukumbira (2001) reports that Zimbabwe lost about 2 000 newly-qualified teachers who may have left for greener pastures in 2000.

In South Africa, concerns about teacher shortages are beginning to be articulated strongly. In a speech before Parliament to support World Teachers' Day on October 5, the Minister of Education, Professor Kader Asmal passionately urged students to study to become teachers, assuring them not to fear retrenchments and further instability in respect of appointments following the termination of the agreement on rationalization and redeployment (City Varsity, 2002:1). The Minister repeated this plea in his address on releasing Senior Certificate results for 2002 (Asmal, 2002). He in particular, appealed to students to "take up careers in the teaching profession ... in particular those students who have also done well in Mathematics and Physical Science ... ". This plea, in part, does address a concern over one of the consequences of teacher turnover, that is, teacher shortages.

However, the situation regarding teacher turnover and attrition in South Africa seems complex due a variety of factors. For instance, the need for rationalisation and restructuring has resulted in offers of severance packages, rumours of retrenchments, redeployment of 'excess' teachers in schools and widespread resignations from the profession (Anon., 1998). Enrolments in teacher training colleges have declined drastically, thereby spurring concerns for teacher shortages (Pretorius & Heard, 1999). On the other hand, it is reported that many vacant teaching posts are not filled (Pretorius & Heard, 1999; Anon., 2002a; Anon., 2002b). The employment of temporary teachers and the non-filling of permanent posts also point to teacher shortages in South Africa (Carlisle, 2001). Gauteng Department of Education (2002:19) reports that in Gauteng there is a negative growth rate of the permanent educator corps and that there are more permanent educators leaving than entering the system. This implies a decreasing number of permanent educators.

Another troubling factor is the large-scale exodus of teachers being recruited to schools in London. Many teachers are reportedly leaving the profession for greener financial pastures in countries like Britain (Simpson, 2002). Pillay (2001) reports that British agencies are aggressively poaching South Africans to address the severe teacher shortage in that country, with at least 4000 teachers making their way into Britain since 1994 (cf. Anon., 2001). She further implies that teaching expertise in mathematics and science is leaving South Africa fast and several local schools are battling to fill posts.

On the other hand, the employment of temporary teachers, threats of retrenchments (Anon., 1998; Naidu, 2001), more primary teachers in the system compared to secondary teachers (Garson, 1995:1), and the redeployment of excess educators in schools, all seem to suggest that the supply of educators is adequate and the apparent shortage is due to an unequal distribution of teachers in the country (Garson, 1995). In fact, a teacher in the former Transkei asserts that due to not being able to get a teaching post, because the department does not hire teachers who are not on the excess and redeployment list, she is considering leaving the country for elsewhere, where her qualifications in maths, science and technology will secure her a teaching job (Osmond, 2001:1). Maseko (2001:1) points out that recently-graduated teachers have, in some cases, been unemployed for up to five years since graduation (cf. O'Connor, 2002:3).

The foregoing exposition strongly points to a link between teacher demand and supply and teacher turnover. It appears that there could be a shortage of educators in real terms in South Africa, albeit in some curriculum areas only. It also appears that turnover is a reality, even if not easily recognisable, due to the apparently conflicting views expressed above.

Teacher turnover manifests itself in many ways and is attributed to many causes. It therefore is imperative that the education system takes cognisance of this and takes steps to address this situation proactively before it reaches critical proportions.

This article therefore investigates teacher turnover as a phenomenon to be managed and suggests ways of doing so. The study is based on a literature review of teacher turnover and attrition. International trends and the South African situation are reviewed and exposed.

# Some theoretical perspectives on turnover

Turnover is described as the movement of employees out of the organisation or any permanent departure beyond organisational boundaries (Croasmun, Hampton & Herrmann, 2002:1; Rohr & Lynch 1995).

Various researchers advance theories on employee turnover. Ruhland (2001:3) cites Chapman's theory, which expands on Holland's theory of vocational choice. The theory posits that vocational satisfaction, stability and achievement depend on the congruence between one's personality and work environment. Ruhland (2003:3) also cites Krumbolt's social learning theory of career selection, which propounds

Turnover and attrition are used interchangeably to refer to employees leaving the organisation.

that factors like genetic endowment and special abilities, environmental conditions and events, learning experiences and task approach skills explain why individuals change occupations throughout their lives. Ruhland (2001:4) uses these theories to develop a public school teacher retention/attrition model. According to this model, teacher retention and thus attrition is a function of teachers' personal characteristics, educational preparation, initial commitment to teaching, quality of first teaching experience, social and professional integration into teaching and external influences.

Khatri, Budhwar and Fern's study of employee turnover (1999) employs a model that posits three groups of factors influencing employee turnover, namely, demographic, uncontrollable and controllable factors. Demographic factors include age, gender, education, tenure, income level, managerial and non-managerial positions. Uncontrollable factors are the perceived alternative employment opportunity and job-hopping. Controllable factors include pay, nature of work, supervision, organisational commitment, distributive justice and procedural justice (cf. Institute of Management, 1999:55; Special Reports, 1999:1).

Celep (2003) draws from the organisational commitment theory and posits that teachers' levels of commitment are determined by factors such as their belief and acceptance of the school organisation's goals and values, the willingness to exert effort on behalf of the school and a strong desire to keep up membership in the organisation. Lower commitment to the school organisation affects both the effectiveness of the school and causes teachers to be less successful or to leave the profession.

Ingersoll (2001a:26) draws from theories advocating teacher turnover as a function of ageing and increasing student numbers. He postulates that teacher turnover can be understood by examining the school organisational characteristics and conditions. His exposition asserts that improvement in organisational conditions such as salaries, increased support from the school administration, reduction of student discipline problems and enhanced teacher input in decision-making would all contribute to lower rates of teacher turnover.

The foregoing theoretical exposition of factors influencing turnover seem to confirm school organisational factors as being critical in teacher turnover. These factors include the teaching job itself, supervision, incentives and rewards, which relate to compensation and recognition, career development, advancement and employment security, poor job performance, which relates to lack of skills, low motivation, bad performance and lack of resources (cf. Jackson & Schuler, 2000:280).

### The effects of educator turnover

The consequences of teacher turnover and attrition are too ghastly to contemplate. Institute of Management (1999:58) posits that the impact of turnover is by way of increased costs to the organisation, broadly categorised as separation, replacement, recruitment, selection, induction and training costs as well as loss of productivity while the newly hired teacher comes up to speed (cf. Carrel et al., 1998:572; Special Reports, 1999:1). Ingersoll (2002:4) postulates that staffing problems are created when employees leave the organisation and have to be replaced, especially since teacher turnover is highest among new teachers — mostly within the first five years (Mills, 2001:1).

Teacher attrition disrupts schooling. This is especially so when teachers leave the profession during the academic year or whilst engaged in critical projects in school. Often there is no continuity when they leave (cf. Borsuk, 2001:2). According to Ingersoll (2002:4) turnover influences the performance and effectiveness of the school since the school as an organisation has production processes requiring extensive interaction among educators and is therefore prone to suffer when subjected to high rates of turnover. Consequently, turnover disrupts the quality of school cohesion and performance.

The shortage of educators is perhaps the most significant effect of educator turnover. Duffrin (1999:4) points out that it is difficult to fill the vacancies created by educators who leave the profession. Inger-

soll (2002) attributes the shortage of teachers directly to turnover and posits that about 90% of newly hired teachers are simply replacements for recent departures. To address this situation, the temptation is reportedly the lowering of standards and compromising entry requirements into teaching (*cf.* Kelleher, 1999; Chaika, 2000).

The effects of teacher turnover necessitate the management thereof. A number of measures have been taken to address teacher turnover in various countries. Among others, aggressive recruitment drives, lowering standards for entry into teaching, provision of allowances as incentives have been employed. However, these measures seem largely to address attracting people in to teaching. Therefore, a holistic approach is needed to manage teacher turnover effectively. This has to address critical sources of turnover, namely, organisational characteristics in the light of the reasons thereof.

# Causes of educator turnover

A plethora of reasons are advanced for educator turnover. Ingersoll (2002) analysed data from different cycles of the 1996 School and Staffing Survey and the Teacher Follow-Up Survey conducted by the National Centre for Education Statistics and found five main areas, *viz.* retirement, school staffing action, family or personal, pursuit of other jobs and dissatisfaction as reasons cited for turnover and attrition (*cf.* Catalyst, 1999; Finn, 1997; Osborne, 2002).

Santiago (2001) cites an ageing teaching workforce and the possible retirement thereof, low salaries and demands for even more complex teaching abilities. Duffrin (1999:2) cites working conditions as reason for high turnover especially among teachers leaving within the first five years of being in the profession (cf. Borsuk, 2001:1). Chaika (2002:1) advocates the lack of teacher mobility, inadequate induction programmes, poor working conditions and a growing salary gap between teachers and other college graduates as sources of teacher turnover. Anon. (2002a) cites the main reasons for the drop in teacher numbers in South Africa as government's financially-driven trimming of the teacher corps, a decision to retrain an estimated 100 000 underqualified teachers rather than recruit new ones, a growing HIV/AIDS crisis in the teaching profession and natural attrition as teachers die, retire and leave the profession (cf. Santiago, 2001).

The HIV/AIDS pandemic is indicated mostly as a cause for teacher turnover in sub-Saharan countries. In this regard schooling is disrupted when teachers are absent due to illness, death or the need to care for ill family members and when HIV-positive teachers leave schools in remote areas that lack health facilities and request postings in locations near hospitals (Wilkinson, 2001:8; Pretorius & Heard, 1999:1).

This exposition highlights organisational factors as the main sources of teacher turnover. In essence these can be categorised into commitment to the organisation, long-term prospects, and job satisfaction, which implies an approach that would focus on the school as an organisation. This article argues for an approach driven by the education system rather than school managers due not only to the effects of turnover costs and the system's mandate to deliver quality education, but also because school managers are not adequately equipped to manage organisational features like turnover and do not have control over some variables of teacher turnover (cf. Chaika, 2002:1).

# An approach for managing turnover

Shaw (1999) outlines a model for developing an employee turnover and retention strategy (cf. Figure 1).

The model in Figure 1 is premised on assumptions that:

- turnover is rarely due to one, easily-fixed cause and thus solutions require organisational focus and commitment;
- executive accountability and responsibility are critical;
- a successful retention strategy must be built bottom-up, that is, identifying causes of voluntary turnover, reason for retention and addressing identified causes of turnover and reasons for retention;
- reducing undesired turnover takes time and effort no quick fixes; and

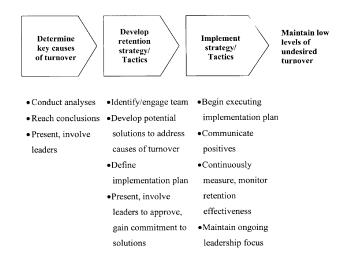


Figure 1 Managing turnover (Shaw, 1999)

 an ongoing focus and measurement of retention/turnover is integral to sustaining low voluntary turnover levels.

The point of departure is the analysis of the impact and extent of turnover, which includes analysing the turnover rates (*cf.* Institute of Management, 1999:56). According to Shaw (1999:2) the impact of turnover is manifested in increased costs, lower productivity and profitability and lower customer satisfaction.

Secondly, causes of turnover are determined. In this regard, Shaw (1999:3) cites recruitment and selection practices, the work itself, compensation, career opportunities and the work environment. Institute of Management (1999:57) advocates the analysis of both hygiene and motivation factors, employees' needs, from the physical to self-fulfilment needs (cf. Xaba, 1995). The analysis should lead to conclusions about the key causes of turnover.

Finally, a strategy to address the problem is developed (Shaw, 1999:8). This involves, *inter alia*, setting turnover benchmarks and selected retention practices, which include holding executives accountable for employee retention and satisfaction, recruitment and selection practices, providing opportunities for input to operating decisions, allowing significant autonomy in job responsibilities, measuring pay competitiveness and satisfaction consistency, providing career opportunities, creating a work environment that is preferred by top employees with a propensity to stay and analysing turnover by tracking reasons for leaving. A team should be established to develop possible solutions, define implementation plans and gain approval and commitment of the organisation's executives to the solutions.

Implementation of the strategy requires constant and rigorous measurement and monitoring of the strategy's effectiveness and the maintenance of leadership focus on the implementation of the strategy (Shaw, 1999:8; Institute of Management, 1999:58).

Schools including teachers are managed from various levels in the education system. In particular, the management roles of schoolbased managers regarding teacher turnover are limited to instructional leadership and motivational processes while issues like compensation, service conditions and entry requirements into teaching are located in the education departments' domain. Managing teacher turnover thus requires an approach primarily involving the education department.

# Implications for managing teacher turnover

It is clear that managing teacher turnover requires a concerted effort from all stakeholders in the education system. The department of education obviously has a major role to play in this regard. However, conditions that lead to high teacher turnover are mostly situated in schools as organisations. Therefore, the strategy to address teacher turnover should be holistic and take a two-pronged shape, that is, address those causes of turnover that are located at the school as an organisation and those over which the department has control.

#### Addressing turnover at school level

Teacher turnover at school level relates to organisational characteristics, in particular those factors that influence teacher job satisfaction (cf. Ingersoll, 2002; Ingersoll, 2001b:501; Jackson & Schuler, 2000:280). This entails the work itself, recognition, opportunities for growth and advancement as well as hygiene factors like better salaries, teaching resources, smaller classes and more non-contact time (cf. Tortora, 2002:1; European Trade Union Committee for Education, 2001:28).

Addressing these factors needs school managers who are wellequipped to create conditions that instil intrinsic motivation for teachers. This implies that the Department of Education must ensure that support is proffered to schools via management development support programmes aimed at capacitating school managers in this regard. Department of Education officials must be capacitated to give realistic and benchmarked support to schools.

# Addressing turnover at departmental level

The Department of Education needs to initiate an active process of addressing teacher turnover. This process should engage all relevant levels of the system, namely, from the human resource directorates at national and provincial levels, to districts and schools. The following elements regarding teacher turnover and attrition should receive attention:

- Addressing teacher turnover must cater for the immediate turnover generated needs and then address the long-term needs. Immediate needs generated by teacher turnover could include an audit of posts in relation to vacant, unfilled posts or posts held by temporary teachers. This should yield exact figures of vacant posts and the demand for teachers. This way, shortages of teachers and the curriculum areas can be identified and "excess teachers" can be matched to vacant posts. Alternatively, vacant posts can be advertised and temporary teachers appointed permanently.
- A database of unemployed teachers and their areas of specialisation need to be compiled in order to determine whether there are shortages or not.
- To cater for long-term teacher turnover-generated needs, an audit
  of teacher demand and supply in relation to demographic needs
  of different provinces and districts needs to be undertaken. It
  must be determined if there are real teacher shortages and what
  curriculum areas exhibit this shortage or if there is an oversupply
  of teachers and in which curriculum areas. In this way, it will be
  possible to determine strategies needed retention strategies in
  the case of turnover prevalence or adequate supply, retraining of
  teachers in other areas of need in the case of an oversupply.
- Strategies to deal with future teacher turnover trends, shortages
  and or abundance will have to be initiated. Departments must
  have accurate and regularly updated data about how many teachers are leaving the system and why they leave. These data are
  crucial to gauge the effectiveness of policies and understand the
  turnover trends.
- Entry into teaching must be re-examined from the teacher recruitment and preparation stage. Teacher preparation must be designed in a way that supplies the demand for teachers, taking cognisance of demographics and needs of communities.

Therefore, teacher recruitment and preparation should consider the following:

- placing as much emphasis on curriculum knowledge as in teaching methodology and practice;
- an internship in a school catering for curricular areas of the trainee's specialisation;
- induction programmes for beginner teachers;
- mentor programmes for beginner teachers spanning a reasonable period, to ensure that these teachers gain the necessary experience and knowledge base;
- less contact time and more time with mentors.
- In curriculum areas like mathematics, science and technology,

recalling teachers who have resigned and offering incentives to young graduates in these areas should be considered. It must be borne in mind that the private sector snaps up these graduates and offers better salaries.

 Departments must compile retirement projections in order to cater for future teacher demand needs.

#### Conclusion

It is clear that teacher turnover, through its teacher shortage manifestation, is beginning to be a major concern in South Africa. It is also clear that the extent of teacher demand and supply, shortages or abundance of teachers is indeterminate hence there are conflicting views of the situation. It is imperative that an understanding of teacher turnover in South Africa be fostered so as to address it at its sources. Most important, is the need to capacitate school managers with competences to influence school organisational characteristics and conditions so as to foster teacher job satisfaction and commitment. It is also important to begin recruitment drives to attract students to study teaching in areas that are demanded by the country's socio-economic needs and then strive to retain them.

Provincial departments need to compile accurate data regarding staffing in schools. This is important in order to facilitate projections regarding teacher demand and supply and determine the extent of turnover and attrition.

#### Recommendations for further research

The exact causes of teacher turnover should be investigated empirically in South Africa, especially the effects of organisational characteristics of school organisations.

Further research should also be conducted on whether teachers in South Africa have control over their mobility, based on their skills and demand thereof in other institutions like the private sector, as well as on establishing the effect of the lack of management preparation of school managers on teacher turnover.

Research should also be undertaken to determine the knowledge and skills basis of department of education officials to proffer support to school managers to manage turnover and organisational factors influencing teacher turnover.

# Acknowledgements

Professor AMC Theron is acknowledged for his contribution to the final direction of this article. Dr NJL Mazibuko is thanked for his assistance in the writing of this article, especially regarding the theoretical perspectives, and Mr Brent for editing the article.

### References

Anon. 1998. Education crisis unresolved. *The Educators' Voice*. [Online] Available url: http://www.sadtu.org.za/ev/April1998\_p01.htm

Anon. 2001. Shrinking supply of suitable staff. *The Teacher/Mail & Guardian*. [Online] Available url:

 $http://www.teacher.co.za/2\,00\,10\,4/0\,5\text{-p}\,oa\,ch\,in\,g2\,.h\,tm\,l$ 

Anon. 2002a. Drop in number studying teaching could result in crisis for the future. [Online] Available url:

http://www.cityvarsity.co.za/journalism/andrewwh/feature/

Anon. 2002b. There is only one training college left in the Western Cape which is being phased out. [Online] Available url: http://www.cityvarsity.co.za/journalism/andrewwh/feature/htm1

Asmal K 2002. Speech by Professor Kader Asmal, MP, Minister of Education on the release of 2002 Senior Certificate Examination Results. Goodhope Auditorium, Cape Town. December 2002.

BBC News Online 2001. Teacher shortage a 'national crisis'. January 18. [Online] Available url: http://news.bbc.co.uk/1/low/education//1124643.stm

BBC News 2001. Truth about teacher shortages. January 13. [Online]
Available url:

http://news.bbc.co.uk/1/low/education/correspondents/1114515.stm

Borsuk AJ 2001. Halting teacher turnover remains challenge at MPS. JSOnline. [Online] Available url:

http://www.jsonline.com/news/metro/mar00/reten020301a.asp Canadian Teachers' Federation 1999. Teacher shortages: A global phenomenon. [Online] Available url: http://www.ctf-fce.ca/e/what/other/short-glob.htm

Carlisle A 2001. 2000 teaching posts vacant in EC . Dispatch online. [Online] Available url:

http://www.dispatch.co.za/2001/09/29/easterncape/EDUC.HTM

Carrel MR, Elbert NF, Hatfield RD, Grober PA, Marx M. & Van der Schyf 1998. Human Resource Management in South Africa. South Africa: Prentice Hall.

Cascio WF 1995. Managing Human Resources: productivity, quality of work life, profits. New York: McGraw-Hill.

Catalyst 1999. What high-turnover schools have in common. [Online]
Available url:

http://www.catalyst-chicago.org/09-99/099turnoverstats.htm

Celep C 2003. Teachers' organizational commitment in educational organizations. Turkey: Trakya University Edirne. http://www.nation.alforum.com/17celep.htm

Chaika G 2000. The teacher shortage: Apply please.  $Education\ World$ . [Online] Available url:

http://www.education-world.com/a\_admin/admin155.shtm1
City Varsity 2002. There is hope for those wanting to be teachers. [Online]
Available url: http://www.cityvarsity.co.za/journalism/andrewwh/
feature/hope.html

Colbourne J 1998. Teacher turnover. June. Northern News Services. [Online] Available url: http://www.nnsl.com/frames/newspapers/1998-06/ jun8\_98teach.html

Coombe C 2002. Keeping the education system healthy: Managing the impact of HIV/AIDS on education in South A frica. Current Issues in Comparative Education, 3. [Online] Available url: http://www.tc.columbia.edu/cice/articles/cc131.htm

Croasmum J, Hampton & D Herrman S 2002. Teacher attrition: Is time running out? [Online] Available url: http://horizon.unc.edu/courses/287/papers/hampton/paper.html

Duffrin E 1999. Tackling the teacher dropout rate. Catalyst. [Online]
Available url: http://www.catalyst-chicago.org/09/099main.htm

European Trade Union Committee for Education. 2001. Teacher shortage in Europe — based on reports from ETUCE member organisations. *Ref:* 7715. General Assembly.

Finn CE 1997. The real teacher crisis. *Education Week*. [Online] Available url: http://www.edexcellence.net/library/rlteach.html

Garson P 1995. Teacher training fails the test. Mail & Guardian, December 8.

Gauteng Department of Education 2002. Annual Report 2001. Johannesburg: GDE.

Ingersoll RM 2001a. Teacher turnover, teacher shortages, and the organisation of schools. Washington: Centre for the Study of Teaching and Policy. [Online] Available url: http://ctp.org

Ingersoll RM 2001b. Teacher turnover and teacher shortages: An organizational analysis. American Educational Research Journal, 38:499-534.

Ingersoll RM 2002. The teacher shortage: A case of wrong diagnosis and wrong perception. NASSP Bulletin, 86.

Institute of Management 1999. *People Management*. London: Hodder & Stoughton.

Kamara F 2002. As acute teacher shortage hits countrywide GTU president speak out. *The Daily Observer*. [Online] Available url: http://allafrica.com/stories/printable/200210300170.html

Kelleher M 1999. Alternative certification ends shortage. Catalyst. November. [Online] Available url: http://www.catalyst-chicago.org/11-99/119alt.htm

Khatri N, Budhwar P & Fern CT 1999. Employee turnover: bad attitude or poor management? Singapore: Nanyang Technological University. [Online] Available url:

http://www.ntu.edu.sg/nbs/sabre/working\_papers/12-99.pdf Markely M 2001. Districts taking new steps to stem teacher turnover.

Houston Chronicle.com. [Online] Available url:
http://www.chron.com/cs/CDA/story.hts/topstory/1006096

Maseko T 2001. Thuthuka Maseko presents alternatives to redeployment for teachers. *The Teacher/Mail & Guardian*. [Online] Available url: http://www.teacher.co.za/200102/letters1.html

Mills H 2001. School development ideas: Reducing teacher turnover. Administrative Leadership. [Online] Available url:

http://www.aacs.org/publications/admin/SP-01/admin-Ideas-SP-01.asp Mukumbira R 2001. Zim loses 2 000 teachers. News 24.com. [Online] Available url: http://www.news24.com/News24/ Zimbabwe/0,1113,2-259 990572,00.htm1

Naidu E 2001. Number of new teachers dwindling. The Teacher/Mail &

shortage.html

- Guardian. [Online] Available url: http://www.teacher.co.za/200102/tertiary.html
- O'Connor S 2003. Who wants to be a teacher? *The Teacher/Mail & Guardian*. [Online] Available url:
  - http://www.teacher.co.za/200009/trainee.html
- Osborne H 2002. Teacher turnover. St Helena Star. [Online] Available url: http://www.sthelenastar.com/5-30-02/headlines/teacher.html
- Osmond M 2001. Forced to go. *The Teacher/Mail & Guardian*. [Online] Available url: http://www.teacher.co.za/200106/01-letters.html
- Pillay R 2001. Top teachers headhunted by UK agencies. Mail & Guardian. February 9.
- Pretorius C & Heard J 1999. Shock teacher shortage looms: Dramatic fall in enrolments at training institutions will trigger education crisis within two years. *Sunday Times*, May 9.
- Rohr CL & Lynch HF 1995. Migration and attrition of public and private school teachers: 1991-1992. NCES. [Online] Available url: http://www.nces.ed.gov/pubs/web/95770.asp
- Ruhland SK 2001. Factors that influence the turnover and retention of Minnesota's Technical College teachers. *Journal of Vocational Education Research*, 26. [Online] Available url:

- http://scholar.lib.vt.edu/journals/JVER/v26n1/ruhland.html
  Santiago P 2001. Teacher shortage. Observer OECD. [Online] Available url: http://www.oecdobserver.org/news/printpage.php/aid/431/Teacher\_
- Shaw G 1999. Developing an employee retention strategy: Background and overview. Pennsylvania.
- Simpson M 2002. It pays to move to greener pastures. *The Teacher*. [Online] Available url:
- http://www.teacher.co.za/cms/article\_2002\_11\_28\_2311.html

  Special Reports 1999. How do you manage turnover. Vol. 3. Bevendam

  Research Inc. [Online] Available url: www.bevendam.com
- Tortora A 2002. Teacher turnover climbing. Enquirer.com. [Online]
  - http://enquirer.com/editions/2000/04/14/loc teacher turnover.html
- Wilkinson D 2001. South Africa: Challenges and change in secondary education. *ICP Online*. http://www.icponline.org/icp\_sections/convention/conv\_5/p6\_01.htm
- Xaba MI 1995. Factors influencing the job satisfaction of senior teachers in schools predominantly attended by black students. MEd dissertation. Vanderbijlpark: Potchefstroom University.