South African Journal of Education

Vol 26(2)199–214

Critique of an intervention programme to promote resilience among learners with specific learning difficulties

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A quasi-experimental study, which focused on inculcating resilience skills in adolescents with specific learning difficulties by means of a group intervention programme, is reported on. The results of the study suggested that adolescents with specific learning difficulties can acquire resilience skills despite obstacle-ridden circumstances, but that the programme requires continued research to be optimally effective.

Introduction

For many adolescents, life is a tough experience characterised by unremitting hardship. Many do not cope with this reality and develop pathological outcomes. Some, however, do cope and avoid developing pathology, despite their damaging circumstances. Those who do cope are thought to be resilient. Precisely what constitutes resilience is a question that has enjoyed scrutiny from a growing number of researchers from the middle to the late 1900s (Ungar, 2005:xvxi). One explanation for resilience is that of the strengths perspective which suggests that resilient individuals possess inherent strengths which empower them to cope with adverse circumstances (Theron, 2004:317; Barton, 2005:138). Such strengths are termed protective factors.

Adolescents who experience specific learning difficulties frequently exhibit few protective factors and struggle to adapt successfully when confronted by difficulty (Bauer, Keefe & Shea, 2001:4). Given the cycle of perpetual failure that many adolescents with learning difficulties experience, they are more vulnerable and their inherent strengths or resilience skills are frequently lacking (Donald, Lazarus & Lolwana, 2002:304). In order to empower at-risk adolescents, prevention efforts are needed that promote protective factors and processes (Wong & Lee, 2005:316). This article reports on a prevention effort in the form of an intervention programme aimed at fostering protective factors in adolescents with specific learning difficulties.

Protective factors defined

Resilience can be defined as a positive response to risk factors or a competent performance under unfavourable conditions (Carle & Chassin, 2004). Capable functioning in the face of adversity is linked to a triad of protective factors. This triad includes personal protective factors (i.e. innate factors including amongst others autonomy, self-help skills and aptitude); familial protective factors (i.e. family factors including amongst others sound family structure and a supportive family network) and extra-familial protective factors (i.e. environmental factors including amongst others bonds with pro-social adults, positive peer relationships and effective schools) (Boyden & Mann, 2005:6-8).

Protective factors are thought to attenuate risk in three models. Firstly, the compensatory model suggests that a protective factor can compensate for risk factors by neutralising the effect of the risk factor (Donald, Lazarus & Lolwana, 2002:222). For example, when educators are

supportive of an adolescent with a specific learning difficulty, their support can compensate for the scholastic stress which the learning difficulty engenders. Secondly, the challenge model suggests that moderate risk factors strengthen the individual's ability to cope with stress later in life (Cook & Du Toit, 2005:249). For example, the adolescent who learns to cope with moderate amounts of failure will cope with future challenges too, because he is familiar with adversity. Thirdly, the protective factor model suggests that protective factors facilitate an interactive process which moderates the effect of the risk factor and modifies response to risk (Cook & Du Toit, 2005:250). For example, many studies have documented that the presence of one supportive, stable caregiver (i.e. a protective factor) is sufficient to buffer a child from traumatic experiences (Friesan & Brennan, 2005:298). For example, when an adolescent with a specific learning difficulty repeatedly fails a subject, a caring, supportive parent who is willing to discuss the experience with the adolescent buffers the adolescent in the face of failure and helps him to maintain perspective of the failure. In maintaining perspective (i.e. that failure in one subject is not equivalent to being a failure) the adolescent's response to perpetual failure can potentially be modified.

Personal protective factors in adolescents with specific learning difficulties

Personal protective factors are factors inherent to the resilient individual, by virtue of either biological programming or temperamental attributes. Neither the individual's family, nor the individual's environment, initiates personal protective factors. The individual personally introduces these factors to the situation as opposed to factors which are part and parcel of the situation to which the individual is exposed (Gore & Eckenrode in Haggerty, Sherrod, Garmezy & Rutter, 1994:34-38) and can be used to compensate for risk, to moderate risk and to modify response to risk.

There are a plethora of personal protective factors ranging from birth order to impulse control to self-efficacy. What they have in common is that personal protective factors strengthen the individual by buffering risk (Theron, 2004:317-318). However, not all personal protective factors are characteristic of the adolescent who experiences learning difficulties.

Nine personal protective factors have been identified as having a buffering effect on learners experiencing learning difficulties (Theron, 2004:319). These factors can be summarised as follows:

- Moderately positive self-concept, suggesting an affirmative relationship to the self, and positive self-talk.
- Positive attitude, suggesting the ability to remain cheerful and optimistic.
- Positive future orientation, suggesting tenacity, orientation to achievement, and optimism.
- Assertiveness, suggesting autonomous functioning, independent-mindedness and the ability to fight for deserved personal rights in a socially appropriate manner.
- Enthusiasm, suggesting a tendency towards excitability and spontaneity.
- Drive, suggesting a curiosity about life, as well as tenacity and creative problem-solving ability. Drive is also associated with tension to achieve goals.
- Good interpersonal relationships, suggesting positive social orientation and the ability to derive optimal benefit from social interaction. Empathy and a desire for love are associated with this attribute.
- Internal locus of control, suggesting a sense of authorship or choice over one's destiny,

even if such choice only pertains to attitude.

- Moderate anxiety, suggesting sensitivity and a sense of obligation, which translates into increased drive and a sense of responsibility.

The nine personal protective factors above are not true of all learners confronting a specific learning difficulty, as a learning difficulty *per se* places learners at risk for non-resilient outcomes (Empson & Nabuzoka, 2004:156).

If protective factors are to be harnessed to compensate for risk, to empower youth to rise to challenges which come their way and/or to moderate the impact of risk, it is necessary to understand precisely what makes youth resilient within a specific context and whether the context is amenable to intervention (Boyden & Mann, 2005:20). Adolescents with specific learning difficulties have a unique, risk-laden context.

Specific learning difficulty as a risk factor

Whilst protective factors decrease the likelihood of adversity resulting in dysfunctional patterns, risk factors increase such likelihood (Mash & Wolfe, 2005:17). Risk factors also function within a triad of personal, familial and environmental factors and include genetic disorders, developmental risk, domestic circumstances, socioeconomic conditions and cultural experiences (Empson & Nabuzoka, 2004:40). A specific learning difficulty is equivalent to a risk factor which can be personal, familial, or environmental in nature.

A specific learning difficulty prevents a learner from optimal learning and growing and is not the result of a physical, visual, auditory or sensory handicap (Donald *et al*., 2002:282). Although the learner's innate potential to learn is adequate, his ability to progress scholastically is inadequate (Empson & Nabuzoka, 2004:155-156). A specific learning difficulty includes difficulty in using spoken or written language and may manifest as difficulty with listening, speaking, reading, writing, spelling or mathematical calculations (Bauer *et al*., 2001:44).This implies that the learner who experiences specific learning difficulty will be familiar with failure and struggling within the academic arena.

Persistent failure takes its toll on emotional and social functioning (Mash & Wolfe, 2005:335) and sets the stage for non-resilient outcomes. A learning difficulty equals a stressful life situation both at and after school — the associated emotional and social problems regularly persist into adulthood and limit the potential for future success on intellectual, social and emotional fronts (Cordoni, 1990:4, Bauer *et al*., 2001:4; Mash & Wolfe, 2005:334-335). The interaction of this stressful life situation with other common life stresses often leads to non-resilient outcomes (Keogh & Weisner, 1993:4; Spekman, Goldberg & Herman, 1993:11; Empson & Nabuzoka, 2004:155).

Nevertheless, within the population of individuals with learning difficulties, researchers have found successful, well-adjusted individuals (Miller, 1996:265-267; Mash & Wolfe, 2005:334).

Prevention

The critical challenge within educational psychology is to prevent specific needs or risk from occurring within learners (Donald *et al*., 2002:28). Thus the move is ostensibly away from a curative perspective towards a primary preventive one. Primary prevention seeks to forestall the problem from arising in the first place. This is the ideal.

However, in reality needs and barriers are frequently not prevented. For this reason,

prevention functions on a continuum that includes primary, secondary and tertiary prevention. Secondary and tertiary prevention manage the after-effects of not having successfully prevented the problem in the first place (Donald *et al.*, 2002:289). Secondary prevention refers to early identification and effective treatment and includes screening, long-term social services and parental education amongst others. Tertiary intervention refers to modifications of the adolescent's environment to enable the adolescent to achieve maximum potential and the highest quality of life in the presence of the primary problem (Kirk, Gallagher & Anastasiow, 2000:183-4). Therefore, in terms of the adolescent with learning difficulty, the problem should ideally have been prevented, using genetic counselling and/or parental/early educator education, for example. As primary prevention did not occur/succeed, the problem needs to be prevented from escalating by using management, for example in the form of education strategies and/or psychotherapeutic interventions and/or medication.

Interventions aimed at preventing the problem from deteriorating are optimally successful when they "... are grounded on knowledge of the culture and context of those with whom we intervene" (Ungar, 2005:xxxiii). In essence, one size no longer fits all and interventions need to be tailored to suit their target group (Mash & Wolfe, 2005:98). Therefore, in order to find a means of managing vulnerability among adolescents with specific learning difficulty, an intervention programme tailored to suit the context of adolescents with specific learning difficulty needed to be designed.

Research aim

Because of the emphasis on intervention being tailored to culture and context (Ungar, 2005: xxxiii), a group intervention programme was purposefully designed for use among adolescents with specific learning difficulty. In this study culture refers to the culture of an adolescent with specific learning difficulty. The context for which this study was designed is that of a secondary government school for learners with special educational needs.

The programme was aimed at preventing risk from escalating among adolescents with specific learning difficulty. Given that within the population of individuals with learning difficulties, researchers have found thriving individuals (Miller, 1996:265-267; Mash & Wolfe, 2005:334) and given that the potential for resilience can be coached (Winfield, 1994), the aim of the programme was believed to be feasible. However, to determine whether the programme was sufficiently suited to the culture of the adolescent with specific learning difficulty, an experimental study using a 'mixed-methods' approach (Ungar & Liebenberg, 2005:213) was required.

Research design

A mixed methods design refers to the inclusion of both qualitative and quantitative research work, where qualitative methods are vital in order to contextualise results obtained from quantitative instruments. With specific reference to the study of resilience, such a mixed-methods design must include debate between professionals regarding the definition of functioning as resilient and the use of semi-structured interviews with participants (Ungar & Liebenberg, 2005:219).

The quantitative instruments were three structured questionnaires, namely, the Adolescent Self-Concept Scale (Vrey & Venter, 1983), the Emotional Profile Index (Roets, 1997), and the High School Personality Questionnaire (Madge & Du Toit, 1989). These structured question-

naires were used to evaluate levels of the nine personal protective factors anchoring resilience in adolescents with learning difficulties.

The qualitative methods included regular semi-structured interviews with participating adolescents, copious process notes from the group sessions used in the intervention programme and projection techniques. The projection techniques included the Draw-a-Person-in-the-Rain (Brink, 1997) and Kritzberg's Three Animal Technique (Brink, 1997; 2005), the Three Wishes Technique (Brink, 1997), Incomplete Sentences Questionnaire (MacFarlane, 1998) and The Forest Adventure Metaphor (MacFarlane, 1998). These projection techniques were used to verify the levels of personal protective factors noted.

The quantitative data collection instruments were varied (given that there was no nationally developed measuring instrument for resilience among adolescents with specific learning difficulties at the time of this study) and replicated the data collection used in the original study which had identified personal protective factors in adolescents with learning difficulties (Theron, 2004:319).

Because the study was experimental, a pre-test, post-test procedure would be conducted, using the above methods of data collection, to determine whether the intervention programme was sufficiently suited to adolescents with specific learning difficulty to promote resilience in their functioning. Two research groups were involved: an experimental group and a control group. The experimental group participated in the intervention programme, whilst the control group did not. The members of each group were not randomly assigned, resulting in a quasi-experimental research design, following a non-randomised control group pre-test, post-test design (Leedy & Ormrod, 2005:227).

The research groups

The research groups were drawn from a population of senior phase secondary-school learners attending a government school for learners with special educational needs. All learners attending the school from which the research groups were drawn had been formally identified as having specific learning difficulties. Furthermore, the groups were culturally similar, in that all were English mother-tongue speakers. The experimental and control groups consisted of six individuals each.

Selection of the research groups was purposive: a questionnaire was designed for identifying adolescents who present as vulnerable. The questionnaire consisted of four open-ended questions concerning the vulnerable learner's typical functioning, and nine closed items relating directly to personal attributes associated with resilient adolescents with learning difficulties as taken from the literature (MacFarlane, 1998:24-33; Theron, 2004:320). The questionnaire was distributed to the school's guidance teachers and psychology department for completion (six adults in total) — the psychologists and guidance teachers were approached because of their in-depth knowledge of the school's learners. They were asked to identify 12 senior phase vulnerable learners according to the attributes delineated in the questionnaires. Their rating (guided by a delineation of vulnerability as documented in literature) formed the identification procedure since there was no other nationally developed instrument to rate resilience and vulnerability levels among adolescents with specific learning difficulties at the time when this research was undertaken.

The researcher used the first 12 questionnaires returned to compile the research groups. Background history and behaviour reports were gathered to allow the identified vulnerability

of proposed group members to first be discussed with other professionals (i.e. the school's psychology department and an independent, practising psychologist). The data (taken from the completed questionnaires, history and behaviour reports) on each adolescent were compared to a description of vulnerable adolescents as gleaned from literature in order to debate the adolescent's inclusion in the research project.

Once it had been debated that the identified adolescents could be described as vulnerable, the nature of the study was explained to these learners and they were given the option to participate or withdraw before data collection took place. The parents of the learners who chose to participate were contacted and their permission and co-operation obtained. The six learners who were thought to be most vulnerable following discussion with the school's psychology department and an independent, practising psychologist were placed in the experimental group. The remaining six vulnerable learners formed the control group.

The two groups identified shared a central risk factor: all group members had specific learning difficulties. There were also additional comparable risk factors impacting on the research groups, including exposure to parental pathology; severe marital discord; parental rejection; financial difficulties and abuse. The open-ended questions completed by the school's guidance teachers and psychologists reported incidences of depression, drug and alcohol abuse and aggressive and anti-social behaviour as manifestation of non-resilient behaviour.

Data collection

Data were collected from both the experimental and control groups prior to and following the intervention which the experimental group received. The degree of resilience in experimental group members' functioning prior to and following the intervention was compared with that of the control group that received no intervention.

The data were collected during four three-hour sessions which occurred during normal school hours. A psychologist from the school's psychology department was present to ascertain that the data were gathered in an unbiased manner. Because participation was voluntary, the participants were generally co-operative.

Collection of data was followed up by lengthy semi-structured interviews with each participant to verify the data.

Data were also collected in the form of process notes and observation notes made during the 12 group sessions. Each session was tape recorded so that the independent psychologist with whom conclusions (based on the process notes) were debated, had objective data with which to compare the process notes.

The group intervention programme

In general, when designing interventions to augment resilience, the focus needs to be on self-perceived strengths and protective processes, rather than on removing risk factors (Wong & Lee, 2005:322). The group intervention programme aimed at augmenting the potential for resilience among adolescents with learning difficulties by honing personal protective factors.

The group intervention programme was constructed to facilitate interactive small group activity. A maximum number of six members was favoured in order that every group member would have an optimal chance of active involvement, which bigger groups preclude (Spitz & Spitz, 1999:19). The groups contained more boys than girls, as this reflected the school's demographics (experimental group: four boys; two girls and control group: four boys; two

girls). The programme catered for 12 hour-long sessions and occurred during regular school hours during the learners' non-academic activity periods. Continuity was disrupted by scheduled exams and a holiday period.

Although the aim of the programme was directive, the approach was flexible: methods were adapted to suit the temperament and needs of the experimental group. The method of presentation varied and included art therapy, music therapy, gestalt work, visualisation techniques, cognitive therapy, role-play and cognitive-behavioural therapies. A broad range of strategies is recommended for successful interventions (Nastasi & Bernstein, 1998).

The actual programme content was based on the characteristics of resilient adolescents with learning difficulties (Theron, 2004:319) thereby attempting to make the programme suitable for adolescents with specific learning difficulties. The programme focused on the themes indicated in Figure 1.

Session	Focus
1.	Introductory session: the need for resilience
2.	Self-knowledge
3.	Internal locus of control and choices
4.	Attitude and anxiety
5.	Assertiveness skills
6.	Faulty thinking
7.	Personal bill of rights
8.	Empowerment
9.	Future orientation and drive
10.	Social orientation
11.	Self-concept
12.	Closure

Figure 1 Programme themes

Pre-test data analysis

The data obtained from the projective techniques were assessed interpretatively (Brink, 1997) in terms of factors pointing towards resilience. For example, the extent of protection illustrated against the rain provided some clue about the adolescent's need for protection against life's difficulties and hence the degree of resilience. The animals chosen were appraised as metaphorical clues in respect of the degree of resilience, and the same pertained to the wishes made. The metaphor of an adventure in a forest served to symbolically represent the degree of resili-

VULNERABLE TRAIT	YES/NO	CONFIRMATION
negative attitude, suggesting loneliness, rejection and depression, as well as emotional vulnerability.	Yes	Incomplete sentences: dominant theme is rejection Low gregarious score and high distrust score (EPI) Forest metaphor Teachers' reports emphasise her propensity to whine and complain
poor self-concept, suggesting emotional instability and negative self-talk.	Yes	Self-concept questionnaire suggests poor self-concept (stanine of 1) Incomplete sentences Follow-up interview confirms poor self-concept
poor future orientation, suggesting negative orientation to achievement, and pessimism.	Yes	Follow-up interview reveals negative orientation towards being able to succeed
hostility, suggesting aggressive, angry functioning, and low frustration tolerance.	Yes	HSPQ (extreme sten of 10 for Factor E, suggesting aggression)
excitability, suggesting a tendency towards impulsivity, recklessness and rebelliousness.	Yes	HSPQ (sten of 10 for excitability and 2 for opportunism suggesting impulsivity and some recklessness)
evasiveness, suggesting a lack of drive, and an avoidance of responsibility. A tendency to quit is also present.	Moderate	Some teachers report a tendency to quit when things are difficult Follow-up interview indicates quitting with regard to school tasks only
external locus of control, suggesting a sense of hopelessness over one's destiny. Affinity for victim identity is noted.	Yes	Metaphor exercise Incomplete sentences HSPQ (sten of 4 for being uncontrolled and for going with the group decision)
inadequacy, suggesting a sense of personal dissatisfaction and a critical attitude. This inadequacy does not translate into motivation to change.	Yes	High distrust score on the EPI suggests experience of inadequacy Three wishes HSPQ (sten of 3 for emotional vulnerability) Draw-a-person Follow-up interview confirms personal dissatisfaction
poor interpersonal relationships, suggesting negative social orientation and reservation. A lack of empathy is noted.	Yes	HSPQ (extreme sten of 1 for factor A suggesting extreme reservation and 2 for shyness) Three wishes Teachers' reports

Figure 2 Example of pre-test composite description — Subject B, experimental group

ence in the adolescent's functioning.

The structured questionnaires were marked according to test specifications. The data were used to formulate a composite description of preliminary levels of resilience relating to the nine personal protective factors. The Adolescent Self-Concept Scale was used to determine self-concept. The High School Personality Questionnaire was used to determine the degree of ego strength (factor C specifically) and the traits (such as drive, assertiveness, enthusiasm, attitude) contributing to, or detracting from, resilience. The Emotions Profile Index was used to determine basic emotional dimensions, such as levels of aggression, anxiety, distrust and depression.

The Incomplete Sentences Questionnaire was used to evaluate the degree to which personal protective factors, not measured by the above tests, operated in adolescents' ability to demonstrate resilience. Finally, each participant was interviewed using semi-structured interviews. During these interviews the results yielded by the data collection were discussed and verified.

The data were then debated with an independent psychologist and the school's psychologists.

Using all of the above, each participant could be described in respect of a positive self-concept, a positive attitude, positive future orientation, assertiveness, enthusiasm, drive, good interpersonal relationships, an internal locus of control and anxiety. When these traits were lacking, the individual was described as vulnerable. An example of such a description is provided in Figure 2.

Post-test data analysis

The post-test was conducted approximately five and a half months after the pre-test. The same procedure was followed for both groups as with the pre-test. It must be mentioned that although the sixth member of the experimental group agreed to the post-testing, he was in the process of quitting school, primarily because of an escalating substance abuse problem. His results were used in overall consideration of the efficacy of the programme.

The post-test data were triangulated with written and oral reports from the educators who interacted with the learners in the research groups on a daily basis. Educators were asked to comment on attitude, interpersonal relationships, assertiveness, enthusiasm, drive and general levels of responsibility.

The pre- and post-test composite descriptions of the experimental and control group members were then compared and discussed with other professionals: psychologists from the school's psychology department and an independent, practising psychologist debated the composite descriptions compared to a profile of resilient adolescents as gleaned from literature (MacFarlane, 1998:24-33). The post-test composite descriptions were triangulated with educators' reports which attested to generally improved levels of resilience for the members of the experimental group and a lack of resilient functioning for members of the control group. An example of a post-test description is included in Figure 3.

Findings of the study

When the pre-test descriptions of the control and experimental group members were compared and discussed, it emerged that the degree of resilience in their functioning was equally low. No

RESILIENCE TRAIT	YES/NO	CONFIRMATION
positive attitude, suggesting the ability to remain cheerful and optimistic.	Yes	Incomplete sentences: dominant theme suggests a willingness to try High average gregarious score (EPI) Forest metaphor Teachers' reports specify improvement here
positive self-concept, suggesting a good relationship to the self and positive self-talk.	Moderate	Self-concept questionnaire (stanine of 4 suggests improvement from stanine of 1) Incomplete sentences
positive future orientation, suggesting tenacity, orientation to achievement and optimism.	Yes	Incomplete sentences Follow-up interview confirms a desire to achieve and an ability to commit to her goals
assertiveness, suggesting autonomous functioning, independent-mindedness and the ability to fight for deserved personal rights in a socially appropriate manner	Yes	HSPQ (sten of 8 for Factor E, suggesting positive assertiveness) HSPQ (sten of 7 for ability to make own decisions suggesting positive assertiveness)
enthusiasm, suggesting a tendency towards excitability and spontaneity.	Yes	HSPQ (sten of 7 for excitability and 6 for enthusiasm suggesting a propensity towards spontaneity)
drive, suggesting a curiosity about life, as well as tenacity and creative problem-solving ability. Drive is also associated with tension to achieve goals.	Yes	Incomplete sentences Forest metaphor HSPQ (sten of 9 for tension suggesting fervour) Follow-up interview confirms tension is not experienced generally
anxiety, suggesting sensitivity and a sense of obligation, which translates into increased drive and a sense of responsibility.	Yes	High bias score on the EPI suggests a need for social approval HSPQ (sten of 8 for apprehension and 9 for tension)
internal locus of control, suggesting a sense of authorship or choice over one's destiny, even if such choice only pertains to attitude.	Moderate	HSPQ (sten of 8 for apprehension and sten of 4 for being uncontrolled suggesting almost average internal locus of control) However, HSPQ suggests good ability to make own decisions. High control score on EPI (suggesting good control)
good interpersonal relationships, suggesting positive social orientation and the ability to derive optimal benefit from social interaction. Empathy and a desire for love are associated with this attitude.	Yes	HSPQ (extreme sten of 7 for factor A suggesting positive social orientation) Incomplete sentences Three wishes Teachers' reports indicate new enjoyment of social interaction and some leadership traits Follow-up interview confirms positive social skills

Figure 3 Example of post-test composite description — Subject B, experimental group

member of either group was considered resilient. No member in either group evinced a positive self-concept, positive attitude, internal locus of control, or anxiety. Two members of the experimental group showed more positive social relationships, compared to one in the control group. Two members of the control group displayed drive and assertiveness compared to only one in the experimental group. One member of the control group showed positive future orientation compared to none in the experimental group. In both groups two members evinced enthusiasm.

Following the experimental group's participation in the preventative programme, dissimilarities were noted when comparing the composite descriptions of the members of the experimental and control groups. These dissimilarities are tabulated in Table 1.

Table 1 Comparison of resilience factors in experimental and control groups, pre- and post-test

Resilience factor	No. of experimental group members to display this trait pre-test	No. of experimental group members to display this trait post-test	No. of control group members to display this trait pre-test	No. of control group members to display this trait post-test
Positive attitude	0	4	0	0
Positive self-concept	0	3	0	0
Positive future orientation	0	5	1	2
Assertiveness	1	5	2	1
Enthusiasm	2	6	2	3
Drive	1	5	2	2
Anxiety	0	4	0	1
Internal locus of control	0	3	0	0
Good inter-personal relationships	2	6	1	1

From Table 1 it is clear that the preventative programme did impact on the experimental group members, however, not with uniform success. Every one of the nine attributes associated with buffering risk and augmenting resilience was improved in at least 50% of the experimental group members. These augmented levels suggest that these adolescents are better equipped towards resilience or "... the struggle to prevail" (Carver, 1998:260).

The ability to view the future more positively was the most augmented attribute in the experimental group — five of the six members projected positive future orientation during the post-test. This is positive in that it suggests that despite obstacles facing these adolescents, the programme could equip them to be future oriented.

Assertiveness and drive were augmented in four of the six members, which suggests that these adolescents acquired the psychological vigour necessary to win through.

The only attributes projected by all experimental group members during the post-test were good interpersonal relationships and enthusiasm. These attributes might be the result of the medium of intervention, namely group sessions. Being part of a group for five and a half months could have improved social orientation and interaction. Simultaneously, the sense of belonging which a group can engender in adolescents might have augmented their levels of enthusiasm.

The attributes least impacted on were an internal locus of control and a positive self-concept — in both instances only three of the six evinced these attributes during the post-test. Further study is needed to determine why an internal locus of control was hardest to inculcate, but this could be related to the notion that adolescent males acquire an internal locus of control more slowly (Chubb, Fertman & Ross, 1997), or to the notion that the experience of a learning difficulty predisposes adolescents to perceived perennial failure and a consequent sense of helplessness (Mash & Wolfe, 2005:335). Such perennial failure is linked to a poor self-concept and is known to characterise adolescents with specific learning difficulties (Lerner, 2003:290).

There is a marginal improvement (two members as compared to the initial one) in the control group's levels of positive future orientation and enthusiasm. As the increment is negligible, it was not thought necessary to probe this improvement.

A comparison of the experimental and control group's post-test composite descriptions suggests that the intervention programme succeeded in augmenting attributes associated with resilience in the experimental group. Table 2 summarises the experimental group improvement per attribute.

Table 2 Percentage of improvement per factor

Resilience factor	Pre-test experimental group numbers	Post-test experimental group numbers	Percentage of improvement
Positive attitude	0	4	66%
Positive self-concept	0	3	50%
Positive future orientation	0	5	83%
Assertiveness	1	5	66%
Enthusiasm	2	6	66%
Drive	1	5	66%
Anxiety	0	4	66%
Internal locus of control	0	3	50%
Good interpersonal relationships	2	6	66%

When Table 2 is used to comment on the efficacy of the intervention programme, it is clear that parts of the programme need to be reconsidered. In particular, sessions 3 and 11 need to be reviewed as these sessions dealt with an internal locus of control and self-concept. Furthermore, the length of these sessions should be examined — it is quite possible that two sessions of an hour each are inadequate to address the complex issues of self-concept and locus of control.

In reviewing the remaining seven personal protective factors targeted by this intervention programme, a success rate of 66% improvement is noted in six of the seven. In other words, the programme was constructive two thirds of the time only and thus only partially successful. Whilst this has been encouraging groundwork, it did suggest that the programme's suitability to the culture of the adolescent with specific learning difficulty needs further refinement.

Discussion

Whilst the experimental group is too small to allow generalisations to the broader population, a direct implication of this study is that the intervention programme could augment the attributes associated with resilience. The partial success of this programme must be seen in the light of its attempt to be contextually suitable — the programme themes related specifically to attributes associated with resilience in adolescents with specific learning difficulties and the facilitation of the programme was flexible enough to allow adaptation to group members' context.

Nevertheless, not all attributes associated with resilience in adolescents with specific learning difficulties were equally well augmented by the programme and not all the participants benefited equally. This calls for a continuation of research. Action research in particular would be useful in order to develop a programme which is more suitable than the current one to augmenting protective factors associated with resilience. Once the reviewed programme has been implemented and its suitability assessed, the next cycle of research can be initiated. Only in this way will a preventative programme evolve which is truly suited to adolescents with learning difficulties.

Furthermore, this study did not ascertain whether the augmented strengths of the experimental group remained intact. To truly augment resilience, intervention needs to be both consistent and developmental (Winfield, 1994). This study's weakness lies in its brevity and in the fact that it was presented as a mono-intervention. A further implication is that the study should be repeated as a long-term study with regular interventions.

Although it is beyond the scope of this study to speculate on the reasons for the sixth member of the experimental group leaving school, his leaving school prematurely must be commented on. Attrition enhances imminent risk. The fact that this member quit school could be seen as confirmation that intervention occurred too late. If at-risk learners are to be truly empowered, early attention, even as early as in preschool years, is pivotal (Nastasi & Bernstein, 1998; Mash & Wolfe, 2005:278).

A further implication of the attrition of the sixth member of this study's experimental group is that the intervention was also too one-sided. For intervention to be optimal it needs to address a continuum of diverse risks and needs (Nastasi & Bernstein, 1998; Mash & Wolfe, 2005:100). At the outset of this intervention, educator reports highlighted a range of risk behaviours that group members were engaging in. The intervention needed to address these behaviours specifically in addition to promoting resilience skills. The implication for future interventions is that they need to be multifaceted and multi-disciplinary. Moreover, the non-involvement of parents and educators in this programme must also be reconsidered. It is very possible that an intervention programme which included parents and educators would have been more effective, as systemic elements which reinforce or corrode personal protective factors could then have been addressed. All this must be borne in mind when the current pro-

gramme is reviewed for re-implementation.

The group resilience programme was implemented at a school as part of the school's curricular programme. This suggests that, given suitable programmes and training, schools can function as agents of secondary and tertiary intervention, thereby facilitating learner wellness. This is especially important in the current day and age when psychotherapy is beyond the fiscal reach of many learners (Heard, 2000:24).

Finally, the partial success of this programme must be related to the fact that it used the medium of group therapy and a facilitator (the researcher in this instance). In other words, this study lends credence to Wong and Lee's suggestion (2005:324) that it is not programmatic interventions *per se* which secure adolescent well-being. Related factors which may not be overlooked are relationship building, positive expectations and a willingness to interact with adolescents.

Conclusion

The results of this study confirm current literature findings: it is possible to foster resilience, also in adolescents with specific learning difficulties, by strengthening or building personal protective factors (Winfield, 1994; Wong & Lee, 2005:318). As such the study provides hope. Notwithstanding the drawbacks discussed, in its current form the programme is a potentially helpful intervention, although one that requires review and further study to make it optimally effective.

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