THE IMPACT OF A GO MAD® TRAINING PROGRAMME ON STUDENTS' SELF-REGULATION

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B.A. Hons

Mini-dissertation (article format) submitted in partial fulfilment of the requirements for the degree Master of Arts in Research Psychology at the North-West University (Potchefstroom Campus)

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1. ACKNOWLEDGEMENTS

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2. SUMMARY

THE IMPACT OF A GO MAD® TRAINING PROGRAMME ON STUDENTS' SELF-REGULATION

Key words: Go MAD®; training programme; self-regulation; goals; self-belief; self-reflection; higher education students

Students at higher education institutions often do not develop effective learning strategies and are therefore unable to successfully negotiate challenges to their academic performance. This often results in unacceptably high numbers of students who prematurely terminate their studies (cf. Daily Mail, 2008; Letseka, *et al.*, 2007). Self-regulation, defined as the process through which individuals control and change their thoughts, impulses and behaviour in order to achieve their goals (Peterson & Seligman, 2004; Luszczynska, Diehl, Gutiérrez-Doña, Kuusinen, & Schwarzer, 2004), is an important skill that enables students to manage challenges to their academic performance. However, no known programmes exist that facilitate self-regulatory skills regarding a broad spectrum of life challenges in student populations. Gilbert (2005) developed the Go Make a Difference (Go MAD®) thinking system, which consists of seven principles of goal achievement, aimed at changing the way desired goals are perceived and pursued. As Go MAD® shares many similarities with self-regulation, it was argued that it could fill the gap created by the lack of existing training programmes.

The aim of this study was thus to assess the impact of a Go MAD® training programme on the self-regulation of a group of students at a higher education institution in South Africa. An availability sample of 20 university students took part in a simple pre-test, post-test experimental and control group design. The experimental group was exposed to a brief two session Go MAD® training programme, specifically adjusted and developed for university students. Data were gathered with the *Generalised Expectancy for Success Scale* (GESS) (Fibel & Hale, 1978), the *Personal Growth Initiative Scale* (PGIS) (Robitschek, 1998), the *Problem Solving Inventory* (PSI) (Heppner & Petersen, 1982), and a self-compiled open-ended questionnaire to explore participants' subjective experience of the programme.

Go MAD® practically improved the experimental group's *Long Range Career Oriented Expectancy*, *Personal Growth*, *Approach-Avoidance Style* and general *Problem Solving* skills. The experimental group also had practically better *Approach-Avoidance Style* compared to the control group after exposure to Go MAD®. In addition, the majority of participants perceived themselves as having been able to successfully achieve specific selected goals through applying Go MAD® principles, and regarded Go MAD® as easy to follow as well as useful in establishing and developing new skills. They experienced their newly acquired skills as having important benefits which they would apply in future goal-pursuit attempts. However, students who chose unrealistic, non-feasible goals and who had to deal with unresolved emotional issues found it hard to attain their goals. Findings support other impact studies regarding Go MAD®.

It was concluded that Go MAD®, despite some limitations, shows potential as a valid tool to foster self-regulation in the participants and ultimately to assist them in achieving their goals. Further research on larger, random samples, as well as longer-term follow-up assessments to determine the extent to which improved goal achievement is sustainable, is recommended.

OPSOMMING

DIE IMPAK VAN 'N GO MAD® OPLEIDINGSPROGRAM OP STUDENTE SE SELF-REGULERING

Sleutelwoorde: Go MAD®; opleidingsprogram; selfregulering; doelwitte; self-geloof; selfnadenke; tersiêre studente

Studente by hoër-onderwys instellings ontwikkel dikwels nie die nodige leerstrategieë nie en is dus nie instaat om uitdagings wat betref hul akademiese prestasie suksesvol die hoof te bied nie. Dit lei daartoe dat hoë getalle studente hul studies voortydig staak (cf. Daily Mail, 2008; Letseka, *et al.*, 2007). Selfregulering wat gedefinieer word as die proses waardeur individue hul gedagtes, impulse en gedrag beheer en verander ten einde 'n doelwit te bereik (Peterson & Seligman, 2004; Luszczynska, Diehl, Gutiérrez-Doña, Kuusinen, & Schwarzer, 2004), is 'n belangrike vaardigheid wat studente in staat stel om hul uitdagings suksesvol te oorkom. Daar is egter geen bekende programme wat selfreguleringsvaardighede kan help fasiliteer en wat die breë spektrum van lewensuitdagings in studentepopulasies in ag neem nie. Gilbert (2005) het die Go Make a Difference-denksisteem (Go MAD®) ontwikkel wat bestaan uit sewe sleutelbeginsels wat handel oor die manier waarop daar oor doelwitte gedink word asook oor hoe hierdie doelwitte nagestreef word. Omdat selfregulering en die Go MAD®-program heelwat aspekte gemeen het, is daar geredeneer dat dié program die gaping kan vul wat daar bestaan tussen die behoefte aan 'n allesomvattende selfreguleringsprogram en die gebrek daaraan in die studieveld en praktyk.

Die doel van die studie was om die impak van die Go MAD®-opleidingsprogram op die selfregulering van 'n groep studente by 'n hoër-onderwys instelling in Suid-Afrika te ondersoek. 'n Beskikbaarheidsteekproef van 20 universiteitstudente het deelgeneem aan 'n voor-toets-na-toets-, eksperimentele en kontrolegroepontwerp. Die eksperimentele groep is blootgestel aan 'n kort Go MAD®-opleidingsprogram, spesifiek aangepas en ontwikkel vir universiteitstudente wat oor twee sessies gestrek het. Data-insameling het met behulp van die volgende vraelyste geskied: *Generalised Expectancy for Success Scale* (GESS) (Fibel & Hale, 1978); *Personal Growth Initiative Scale* (PGIS) (Robitschek, 1998); *Problem Solving Inventory* (PSI) (Heppner & Petersen, 1982). 'n Selfopgestelde oop vraelys is ook deur die eksperimentele groep voltooi om hul subjektiewe ervaring van die program te ondersoek.

Go MAD® het prakties die eksperimentele groep se prestasie ten opsigte van die volgende items verbeter: *Long Range Career Oriented Expectancy, Personal Growth, Approach-Avoidance Style* en algemene *Problem Solving* skills. Die eksperimentele groep het ook prakties beter prestasie ten opsigte van *Approach-Avoidance Style* vergeleke met die kontrolegroep ná blootstelling aan Go MAD® gehad. Verder het die meerderheid van die deelnemers ook geoordeel dat hulle suksesvol daarin was om hul doelwitte met behulp van die Go MAD®-program te bereik. Hulle het ook genoem dat hulle Go MAD® beskou as maklik om te volg, en bruikbaar vir die daarstelling van konkrete doelwitte. Hulle beskou hul nuut ontwikkelde vaardighede as voordelig en iets wat hulle in die toekoms sal toepas om doelwitte te bereik. Studente wat egter onrealistiese doelwitte gekies het en wat onopgeloste emosionele probleme gehad het, het dit moeilik gevind om hul doelwitte te bereik. Die bevindinge ondersteun ander impakstudies wat al met Go MAD® gedoen is.

Daar word tot die slotsom gekom dat Go MAD®, ten spyte van sommige beperkinge, wel potensiaal toon om as 'n geldige instrument gebruik te word om selfregulering aan te moedig en aan te help. Verdere navorsing op groter ewekansige steekproewe asook opvolg-evaluerings oor 'n langer termyn om te bepaal in watter mate verbeterde doelwitbereiking volhoubaar is, word voorgestel.

3. PREFACE

3.1 Article format

The article format as described by General Regulation A13.7 of the North-West University was chosen for the purpose of this mini-dissertation, which is part of the requirements for a professional master's degree.

3.2 Selected journal

The journal selected for submission of this article is the South African Journal of Psychology.

4. ARTICLE

THE IMPACT OF A GO MAD® TRAINING PROGRAMME ON STUDENTS' SELF-REGULATION

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Abstract

The aim of this study was to assess the impact of a Go Make a Difference (Go MAD®) training programme on the self-regulation of a group of students at a higher education institution in South Africa. An availability sample of 20 university students took part in a simple pre-test, post-test experimental and control group design. Data were gathered with the *Generalised Expectancy for Success Scale* (GESS), the *Personal Growth Initiative Scale* (PGIS), the *Problem Solving Inventory* (PSI), and a self-compiled open-ended questionnaire to explore participants' subjective experience of the programme. It was found that Go MAD® shows potential as a valid tool to foster self-regulation in students and to help them ultimately to achieve their goals. However, students who chose unrealistic, non-feasible goals and who had to deal with unresolved emotional issues found it difficult to attain their goals. Findings support other impact studies regarding Go MAD®. Further research on larger, random samples with presentation of Go MAD® over a longer period of time, as well as longer-term follow-up assessments to determine the extent to which improved goal achievement is sustainable, is recommended.

Key words:

Go MAD®; training programme; self-regulation; goals; self-belief; self-reflection; higher education students

Students attending universities or other higher education institutions are often not well equipped with effective learning skills to successfully complete their studies. Research suggest that many students do not develop effective learning strategies unless they are explicitly instructed and given the opportunity to apply these skills (Weinstein, et al., 2000 in Rachal, Daigle & Rachal, 2007). Challenges to students' academic performance include personal attributes, physical and environmental factors, and aspects such as financial support (Miller, 2004). Premature termination of studies often results if these challenges are not managed effectively. In the UK, drop-out rates at universities for 2003/2004 ranged from 14.4% in England to 19.1% in Northern Ireland (Daily Mail, 2006). A study conducted at seven South African universities (Letseka, *et al.*, 2007) found that an alarming 20 000 students dropped out of university before completing their degrees. Although the vast majority indicated a lack of funding as the main reason, personal, social, cultural and political reasons were also mentioned. Unpublished statistics show that in 1999 24.75% of the total number of enrolled students from the North-West University (NWU) dropped out before completing their qualifications (NWU, 2008).

Many of the challenges facing higher education students include the management of complex and conflicting goals, which depends on having good self-regulatory skills (Rachal, Daigle & Rachal, 2007). Self-regulation is the process through which individuals control and change their thoughts, impulses and behaviour in order to achieve their goals (Peterson & Seligman, 2004; Luszczynska, Diehl, Gutiérrez-Doña, Kuusinen, & Schwarzer, 2004). According to Vancouver and Day (2005:156-158), self-regulation refers to the "*processes involved in attaining and maintaining goals*" and include *goal establishment,* the adopting, adapting or rejecting of a goal; *planning,* the preparation to pursue a goal; *striving,* the moving towards or maintaining a goal; and *revision,* processes involved in the possible change of or disengagement from a goal. Effective self-regulation has a strong focus on strategies and motivational control therefore ideal thoughts and behaviour can be identified for future goal achievement that ensures consistent goal achievement over time (Boekaerts, Maes & Karoly, 2005; Reed, Schallert & Deithloff, 2002).

The need for students to develop skills and attitudes that enable them to engage in intentional, self-regulated learning has been emphasised in literature (Rohrkemper & Corno, 1988 in Perry, Phillips, Hutchinson, 2006). Self-regulated learning has been associated with success in school and beyond, as it entails independent and highly effective approaches to learning (Perry, Phillips, Hutchinson, 2006). Students need to respond adaptively and flexibly, as this enables them to cope with classroom demands and provides them with control over their own learning (Perry, Phillips, &

Hutchinson, 2006). However, according to Perry, Philips and Hutchinson (2006:238) uncertainties among teachers on how to support the learning needs of students result in students' *"not being taught habits and strategies for self-regulating learning, nor are they receiving informative feedback about their own attempts."*

Although a variety of intervention programmes aimed at promoting self-regulation exist, (Boekaerts, Maes & Karoly, 2005) few address the assessment and training of self-regulatory skills to higher education students in a simplistic and universally applicable manner. The Go MAD® thinking system (commonly referred to as Go MAD®), developed by Andy Gilbert (Gilbert, 2005), shows promising potential to help teach students how to become self-regulating individuals. Gilbert developed Go MAD® from the findings of a study in which the aim was to understand the "*success process that people naturally use when making a difference in their careers, health, or personal lives*" (Gilbert, 2005:14). Go MAD® is illustrated by means of a pyramid diagram consisting of three different levels (figure 1).

[*figure 1*]

The first level is referred to as *Personal Planning* and links together the first three principles of success (Gilbert, 2005:29). *Reason Why* refers to having a strong reason to achieve a goal as the most important driving force behind any aspiration. For the second principle, *Define Goal,* Gilbert applies the concept of SMART (*Specific, Measurable, Achievable, Relevant and Timescale*) goals to assist individuals in developing and defining their goals (Gilbert, 2005:60). Finally, *Planning Priorities* refers to the process of ordering goals into a meaningful hierarchy. The individual can only move to the second level once the three principles on level 1 have been achieved. The second level, *Maintaining Momentum* (Gilbert, 2005:29), consists of principles four to six. *Self Belief* emphasizes the belief to succeed in making a desired difference; *Involve Others* refers to the use of others as a resource in goal executing; and finally, *Personal Responsibility* for actions necessary to achieve a goal, is placed at the centre of the system as it is a prerequisite for giving effect to each of the other principles. Once all six of the first and second level principles are in place, the individual can move on to the third level, called *Making a Difference* (Gilbert, 2005:29). This consists of the seventh principle, which is *Take Action* and *Measure Results* (as obtained from the attempt at goal achievement).

An individual moves through the levels of Go MAD® by making choices on how to apply each of the principles. These choices are used to link the principle of *Personal Responsibility* to each of the other principles. The first choice, for example, involves the question *"Can you be bothered to make a difference?"* A definite *Yes* or *No* should be indicated (Gilbert & Chakravorty, 2005:58), so as to show either goal commitment or goal revision, if the answer had been no. In addition to these questions, individuals have to assess their strengths, weaknesses, skills, confidence and knowledge, and work on a *Personal Development Plan* (Gilbert & Chakravorty, 2005:46). Different exercises are used throughout Go MAD® to help individuals. One is called *Possibility Thinking* (Gilbert, 2005; Gilbert & Chakravorty, 2005) and helps individuals to plan for achieving their goal by exploring different avenues of achieving their goals. Through another exercise, *Challenge Plan* (Gilbert, 2005), participants are enabled to keep track of their progress in doing what is necessary to achieve their goal. They can thus immediately see where they failed to achieve their goals and what aspects had contributed to their failure. Through the application of Go MAD®, Gilbert (2005) wishes to aid people in changing how they look at a desired goal from all possible perspectives and explore different avenues of the goal achievement process. The outcome he wants to facilitate is that people should be more successful in making differences and achieving their goals.

It is clear that Go MAD® has many similarities to self-regulation, and that it could even be considered a specific approach to self-regulation. Both are aimed at managing specific goals, reflecting on goal outcomes and making changes where necessary. However, whereas self-regulation is a broad theory of human behaviour, Go MAD® can be seen as a structured model of training people to put self-regulatory skills into practice. Although Go MAD® has been applied to a large number of people around the world and in different contexts (Go MAD, 2008) the impact of Go MAD® on students' self-regulation specifically has not yet been explored. If Go MAD® is found to have a positive impact on students' self-regulation, it could be considered a training programme in academic or even general success for students at higher education level.

The primary aim of this study is to assess the impact of a Go MAD® training programme on the self-regulation of a group of students at a higher education institution in South Africa. More specifically the study aimed to determine if there were a difference in the self-regulation skills and strategies of students before and after the implementation of a Go MAD® training programme, and to explore students' subjective experience of a Go MAD® training programme on their perceived self-regulation.

METHODOLOGY

A simple pre-post test experimental and control group design was employed to measure the impact of a Go MAD® training programme on students' self-regulation. Quantitative data were triangulated with qualitative data to explore the experimental group's subjective experience of the programme.

Participants

An availability sample of 20 English-speaking undergraduate students from five different departments of the Vaal Triangle campus of the NWU took part in the study. Twelve students were assigned to an experimental group and eight to a control group, based on their time schedules and availability for the intervention. The composition of the experimental group was ten black males (83%) and two white females (17%). The control group consisted of three black males, three white males and two white females. For this group, the gender and ethnic distribution was 75% male and 62% white. All of the students who participated were academically in either their second, third or fourth year.

Measuring instruments

Self-regulation was measured with three existing scales while a semi-structured, open-ended questionnaire was specifically developed to measure the perception and experience of Go MAD®. The *Generalised Expectancy for Success Scale* (GESS), developed by Fibel and Hale (1978), measures the extent of perceived self-belief regarding the ability to obtain desired goals. It contains 30 statements with three sub-scales, namely *General Efficacy*, *Long Range Career Oriented Expectancy* and *Personal Problem Solving*. Cronbach Alpha reliability coefficients of 0.795, 0.50 and 0.548 were obtained for the three subscales respectively. The *Personal Growth Initiative Scale* (PGIS) (Robitschek, 1998) contains nine statements and measures the extent of a person's goal setting ability. A Cronbach Alpha reliability coefficient of 0.737 was obtained in this study. The *Problem Solving Inventory* (PSI) (Heppner & Petersen, 1982) contains 35 statements and three sub-scales, namely *Problem Solving Confidence*, *Approach-Avoidance Style* and *Personal Control.* Cronbach Alpha reliability coefficients of 0.795, 0.796 and 0.427 were obtained for the three subscales respectively. This means that the *Personal Control* subscale had less than acceptable reliability and results obtained from it will therefore have to be interpreted carefully.

A semi-structured, open-ended 12-item questionnaire was compiled and administered to the experimental group to explore their perceptions about the effectiveness of the Go MAD® training programme. Some of the questions were taken directly from Go MAD® sources (Gilbert, 2005) while others were based on self-regulation theory. Examples of questions are *"In your experience of using the Go MAD® model, did you find that it helped you in the process of attaining your goal? Please motivate your answer"*; *"Which of the seven key principles did you find most useful? Please motivate your answer"*; and *"During your goal achievement process, did you find that the Go MAD® model helped you when it came to regulating thoughts and actions? Please motivate your answer in describing how."*

Procedure

This study is a sub-project of the study entitled *The nature, dynamics and application of Self-Regulation in different South-African health contexts* that has already been approved (reference number 06K20) by the NWU's ethics committee. Guidelines regarding confidentiality and informed consent (Creswell, 2005) as provided by the NWU were strictly adhered to. Students were invited to attend an information session through posters strategically distributed at various locations on campus. Twenty students attended the first session during which details of the study were discussed. After all 20 students had given written consent to participate, they were assigned to the experimental or control groups. The GESS, PSI and PGIS were then administered and a date for the first Go Mad® session agreed upon.

The Go Mad® training progamme consisted of two sessions over a period of one month. The researcher used excerpts from two Go MAD® references (Gilbert, 2005; Gilbert & Chakravorty, 2005) in compiling the intervention, focusing on aspects applicable to the context and time-frame of the study. A detailed introduction and explanation of the Go MAD® system was given, explaining where and why the system originated and then explaining each of the seven principles. The concept of SMART goals was explained, after which they were asked each to choose a goal which they would like to achieve over the next month. Participants were then guided through facilitation of the *Four Go MAD Thinking Components* (Gilbert, 2005:161), the three stages of a solution-focused approach to thinking (Gilbert, 2005) and the *Possibility Thinking* exercise (Gilbert, 2005; Gilbert & Chakravorty, 2005). This exercise comprises ten questions aimed at exploring ways of achieving their goals. The respondents' responses were then prioritised and used to complete their Go MAD® *Challenge Plan* (Gilbert, 2005) as explained in the literature review. This first training session

lasted for three hours after which a date for the final training session in one months' time was agreed upon. Participants then had to go out and strive in practice to attain their chosen goals.

The second session consisted of feedback from the students on how they had applied Go MAD® in attempting to attain their chosen goals, as well as providing tangible proof of having achieved their goals. A brief discussion followed regarding their experience with the use and application of Go MAD®. The GESS, PSI and PGIS were then administered again, and lastly they were asked to complete the open-ended questionnaire aimed at exploring their subjective experience of Go MAD® and their newly acquired skills. The control group's post-measurement, including the GESS, PSI and PGIS only, was done separately.

Data analysis

Due to the small non-probability sample, both parametric and non-parametric statistics were calculated. To test for differences during pre-test measures, the t-test for independent groups and the Mann Whitney U test were used. Pre-post test within-group differences were calculated with t-tests for dependent groups and the Wilcoxon test. Post-test between-group differences were analysed with Analysis of Co-variance (ANCOVA), controlling for pre-test differences and the Mann Whitney U test. In this study, effect sizes, namely Cohen's *d*-values and a non-parametric *r* for practical significance, were determined for statistically significant differences ($p < 0.05$). Guidelines for interpretation of *d* and *r* are small effect ($d \geq 0.2$ & $r \geq 0.1$), medium effect ($d \geq 0.5$ & $r \geq 0.3$) and large effect ($d \geq 0.8$ & $r \geq 0.5$) (Steyn, 2000; Field, 2005).

Data from the semi-structured questionnaires were analysed using a thematic content analysis approach (Rist, 1994) in order to explore the awareness and experience of self-regulation before and after the Go MAD® intervention. Through the process of successive approximation the researcher moved back and forth in the data, identifying and exploring emerging themes, until data saturation was reached (Neuman, 2000).

RESULTS

Quantitative data analysis

Pre-test comparison between the experimental and control group

In this section, results of the pre-test comparisons will be presented as indicated in table 1.

[*table 1*]

Table 1 indicates that the experimental group in practice had better *Problem Solving Confidence* with a large effect size (d = 0.75) before intervention than the control group. This is probably the result of not assigning participants randomly to either of the two groups. Conclusions regarding the PSC subscale should therefore be based on within-group and ANCOVA group differences. However, the rest of the sub-scales did not differ significantly or practically. Therefore, between-group comparisons could be made regarding those variables.

Pre- and post-test within-group comparison

Pre- and post-test control group differences are indicated in table 2, while pre- and post-test experimental group differences are indicated in table 3.

[*table 2*]

No differences were found regarding pre-post control group scores, as indicated in table 2. This result was expected as the control group was not exposed to the independent variable, confirming that neither time nor the pre- or post-test measures had had any effect on the control group. Table 3 clearly indicates that the experimental group improved according to the parametric statistics regarding *Approach-Avoidance Style* and general *Problem Solving* (PSI total score), with a large effect size (d > 0.8) and regarding *Long Range Career Oriented Expectancy*, *Personal Growth Initiative* and *Problem-Solving Confidence* with a medium effect size (d > 0.5). The same variables improved according to the non-parametric statistics, but with a medium effect size (r > 0.3) only.

[*table 3*]

Post-test comparison between the experimental and control group

Table 4 indicates that after intervention, the experimental group, in comparison to the control group, in practice had better *Approach-Avoidance Style*, with a large effect size ($d > 0.8$), according to the parametric statistics. They were thus more inclined to actively approach and pursue their goals instead of avoiding them and putting them off.

[*table 4*]

The same difference was found with the non-parametric tests, but with a medium effect size ($r > 0.3$) only. In addition, the non-parametric statistics indicate better *Problem Solving Confidence* and general *Problem Solving* (PSI total score) for the experimental group, but with a medium effect size ($r > 0.3$) only.

Qualitative data analysis

Students' perception of successfully achieving the goals they selected for Go MAD®, the subjective experience of the difficulty and usefulness of the programme, as well as perceptions of their newly acquired self-regulatory skills, are shown in table 5.

[*table 5*]

Theme 1 – Perception of success

In total, nine (75%) of the 12 participants perceived themselves to have been successful in achieving their selected goals. Their perceptions were validated by providing tangible proof, for example test results, a budget or balance sheet, or eye witnesses to activities like going to church. Academically related goals were chosen by five of the participants, for example passing all their subjects, achieving at least a 40% average and finding a balance between studies and social life. Of these, three (60%) were able to achieve their goals. The two participants who failed to achieve their academic goals both stated that their reason for failing was because they had not accurately followed the Go MAD® instructions. The two participants whose goal had been to read a book about someone they admired were both able to achieve their goals. The rest of the participants had

different goals each. The participants who chose goals related to communication (improving general English skills), religion (attending church services for a month), sport (doing slam-dunks while playing basketball) and finances (staying within a monthly budget) were all able to achieve their goals. The student who had a relational goal (dating only one girl) was not able to achieve his goal. The perception of the participant with the relational goal was that he had failed because the people he chose to involve had not been prepared to help him. He also stated that because this was a personal goal, it affected people emotionally, which resulted in people's feelings being hurt, causing unhappiness.

Theme 2 - Subjective experience of the difficulty and usefulness of Go MAD®

Nine participants (75%) experienced Go MAD® as an easy method to help them track their progress and achieve their goals. One of the participants, for example, said: *"Even if you are not making the desired progress in the end you have definite outcomes of either achieving your goal or not achieving your goal"*. The three participants who indicated that they had not found Go MAD® easy, each gave a different reason for this. The participant with the religious goal found it difficult to choose the right people to involve because of the personal nature of his goal, and because he had been scared to talk about it. The second participant stated that he had not found it easy. However, the structure of the defined goal (SMART) pressured him into action and finally helped him "*avoid procrastination*". The third participant stated that he had found the planning and prioritising hard to get used to as he was a "*spur of the moment*" type of person and he had found it hard to start every day with a plan of prioritised activities.

All 12 participants (100%) replied in the affirmative when asked if Go MAD® was helpful in the process of attaining their goals. Some of the reasons they stated for their answers were that Go MAD® helped them set goals in a precise manner, using priorities and a timescale, which enabled them to know exactly what they had to do in order to achieve their goals. One participant mentioned that Go MAD® has a good "*measuring technique*", referring to its self-evaluation component. Other participants mentioned that the concept of involving other people was a novel idea and something they have not thought of doing in previous goal achievement attempts. Two participants stated that it helped them stay motivated, and another two that it helped them stick to their goals and stay focused. Others mentioned that Go MAD® was a way for them to review past failures and to come up with new ways of achieving their current goal. It also served as a constant reminder of the time constraints linked with the goal. The participant who had failed to achieve the

relational goal stated that, even though GO MAD® was helpful, he had experienced it as ineffective when the goal was personal and when people's emotions were involved.

The key principle of Go MAD® perceived as most useful was *Personal Responsibility*, indicated by 50% of participants. *Self-belief* was perceived to be the second most useful (42%) and *Reason Why*, *Define Goal*, *Plan Priorities* and *Involve Others* were in third place, with 25% each. The least helpful principles were *Take Action* and *Measure Results* with one vote each. All 12 participants found that at least one principle was helpful to them. One participant stated that he found all seven helpful and that they worked together as a whole.

All 12 participants (100%) replied in the affirmative when asked if in future they would apply Go MAD®. Their reasons were that Go MAD® was the "*simplest way*" when a difference is to be made and that with the use of all seven principles "*success is guaranteed*". They also stated that the system enables "*clarification of objectives*" and that it should be implemented in disadvantaged schools. One participant stated that it fostered logical and critical thinking and another stated that it empowered people with the basic tools to achieve a specific goal.

Theme 3 - Perception of the newly acquired self-regulatory skills

Six participants (50%) experienced it as moderately difficult to apply their newly acquired self-regulatory skills, five (41.7%) experienced it as easy, and only one (8.3%) experienced it as difficult. The three participants who were not successful in achieving their goals experienced it as only moderately difficult. When asked to give reasons for rating the new skills as difficult or moderately difficult, participants indicated that they had to break with old habits and behaviour and replace it with new ones in order for them to achieve their goals. Participants indicated that the skills obtained through Go MAD® especially helped them to regulate thoughts that were negative or keeping them from achieving their goals. They did this by staying positive, keeping their goals in mind, believing in themselves, better time management and following through with all their prioritised actions. They also involved other people to talk about their feelings and by seeking motivation, encouragement and feedback.

DISCUSSION

In this study a two-session training programme, based on the Go MAD® thinking system (Gilbert, 2005), was compiled to improve the self-regulatory skills of a group of higher education students. Due to the small non-probability sample, data was analysed with both parametric and non-parametric statistics, including ANCOVA to control for pre-intervention differences. In addition, findings were triangulated with qualitative data to obtain a deeper sense of the participants' experience of the role and importance of Go MAD® in achieving their goals. In the light of this the findings suggest enough to indicate that Go MAD® has positive application possibilities for the improvement of self-regulatory skills in higher education students.

The first reason for this is that Go MAD® practically improved the experimental groups' *Long Range Career Oriented Expectancy*, *Personal Growth*, *Approach-Avoidance Style* and general *Problem Solving* skills. Secondly, after Go MAD®, the experimental group had practically better *Approach-Avoidance Style* in comparison to the control group. Thirdly, the majority of participants perceived themselves to have been able to successfully achieve specific selected goals through applying Go MAD®. Fourthly, most participants regarded Go MAD® as easy to follow, useful in establishing and developing new skills, and experienced their newly acquired skills as having important benefits which they would apply in future goal-achievement attempts. The findings support the promise shown by other impact studies of Go MAD® within companies like 3M, Matalan, STA Travel and British Sugar (Go MAD, 2008).

Go MAD® appears to be a valid tool for changing self-regulation, as feedback from the participants on its usefulness reflected all the stages of the self-regulation process, namely, goal establishment, planning, striving and revision (Vancouver & Day, 2005). Participants indicated that Go MAD® was an excellent tool to use when one wants to clarify goals and objectives, especially referring to the *Possibility Thinking* exercise (Gilbert, 2005). The fact that the only person who rated the newly acquired self-regulatory skills as difficult was also very successful in achieving his goal seems contradictory. However, this makes perfect sense as self-regulation research has shown that goals have to be challenging enough to motivate individuals to take action, and that efforts will even be increased when confronted with difficult goals (Vancouver & Day, 2005:159, in reference to Bandura, 1986 & 1997).

Also, the fact that in Go MAD®, participants have to choose their own goals possibly contributed to autonomous regulation. Ryan and Deci (2000) state that autonomous regulation occurs when a goal is chosen or emanates from one's self, and is set because of personal importance, in contrast to controlled regulation, where people feel coerced or pressured to attain a goal set by external or internal forces. Autonomous regulation contributes to authentic or intrinsic motivation, literally, self-authored or endorsed, or the inherent tendency to seek out novelty and challenges, to extend and exercise one's capacities to explore and to learn. This subsequently leads to more interest, excitement, and confidence, which in turn manifest themselves both as enhanced performance, persistence and creativity, and as heightened vitality, self esteem and general well-being (Ryan & Deci, 2000).

The *Possibility Thinking* exercise could also have contributed to a large extent to participants' improved personal growth, as this exercise allows a person to assess his/her abilities and capabilities, as well as the reality in which they find themselves. Therefore, they do not only become more aware of their problem-solving abilities but by using this exercise they are confronted with their own limitations, and challenged to change them. Go MAD®'s emphasis on constantly evaluating oneself as well as one's goals and the resources available for goal achievement (Gilbert, 2005) possibly facilitated a heightened awareness of participants' problem-solving abilities, explaining the experimental group's better approach style, in comparison to the control group. In this regard, participants clearly stated that Go MAD® helped them "*avoid procrastination*" and thus kept them motivated. The improvement in respondents' career orientation could be attributed to Go MAD®'s specific focus on self-belief. Through making them aware of their own self-belief, Go MAD® enables them to take stock of what they believe they are capable of. Career choices are vital at this stage of their lives and the awareness of their own beliefs enables them to become what they are aspiring to be in their respective careers. Go MAD® describes the impact of a person's self-belief by stating that "*people act in accordance with their current beliefs*", and these beliefs can either limit them or enable them to make a desired difference (Gilbert & Chakravorty, 2005:143).

Finally, another reason for the positive application possibility of Go MAD® for the improvement of self-regulatory skills in higher education students is the simple and user-friendly way in which the programme was structured, packaged and presented. Some would argue that a two-session training programme would hardly be enough to bring about change in goal achievement. However, brief training programmes are probably easier to present in a simple and user-friendly way, which in turn foster better commitment from participants.

In contrast to the positive possibilities of Go MAD®, one has to reflect on why some participants were not able to achieve their goals. The participant who failed to achieve the relational goal stated that he had experienced Go MAD® as ineffective when the goal was personal and when people's emotions were involved. This is possibly because he had just broken up with his girlfriend and he was still emotional about the situation. According to Bermudez (2006:391) the interfering effect of affective processes can *"distort the rational process of decision-making and interfere with the implementation of the intended behavior"*. Other factors that might have influenced his and the other two participants' failure were that their goals were not specific, feasible or realistic and that they were not as committed and focused as their general feedback was not as forthcoming and comprehensive as that of the respondents. In self-regulation, performance is dependent on task-specific goal content, including specificity, and upon goal intensity, including commitment (Maes & Karoly, 2005:273). Mischel and Ayduk (2004) state that goal commitment is a necessary first step in order to be able to sustain intentions of completion, whereas, according to Carver and Scheier (2003), commitment among others, interact to foster perseverance, even in the face of adversity.

Finally, the fact that the programme was presented in the time span of only one month, instead of Gilbert's recommendation of three months, could also have contributed to failure for some of the participants. Thus, the researcher concludes that failure for some was in part due to the timeframe of the intervention, but mostly due to the type of goals they chose. This needs to be addressed by the presenter in future. Another important issue, and a question that still remains, is how sustainable the changes are that were brought about by Go MAD®. In this study, time and structural limitations made it impossible to do further post-test assessments.

RECOMMENDATIONS

Further research needs to be done on larger randomly selected samples and with a longer period of time elapsing between the pre- and post-tests to allow for the more complete development of the Go MAD® thinking principles. The training programme could also be elaborated on and could be more extensive, for example a two to four day training programme and more practical work could be included. The presenter should facilitate commitment to goals that are more concrete and feasible. Lastly, it is recommended that researchers consider self-regulation-specific scales that control for ethnic and language differences, which, in the context of South African universities, play an important role.

CONCLUSION

The aim of this study was to assess the impact of a Go MAD® training programme on the self-regulation of a group of students at a higher education institution in South Africa. It was found that a Go MAD® training programme developed for this purpose shows potential as a valid tool to foster self-regulation in the participants and for them ultimately to achieve their goals. Findings support other impact studies regarding Go MAD®, but the specific contribution of this study is that, as far as known, it is the first time it was assessed in terms of higher education students' self-regulation. The programme was successful, at least in the short term, probably because it provided for the selection of autonomous goals, fostered personal growth and self-belief, and challenged students to approach rather than avoid problems they encountered along the way. However, students who chose unrealistic, non-feasible goals and who had to deal with unresolved emotional issues found it hard to obtain their goals. These issues should be addressed proactively in future when presenting the programme. Also, further research on larger, randomly selected samples over a longer period of time and with longer-term follow-up assessments to determine the extent to which improved goal achievement is sustainable are recommended to confirm the findings of this study.

REFERENCES

Bermudez, J. (2006). Personality science, self-regulation, and health behavior. *Applied Psychology: An International Review*, 55(3), 386-396.

Boekaerts, M., Maes, S., & Karoly, P. (2005). Self-regulation across domains of applied psychology: Is there an emerging consensus? *Applied Psychology: An International Review*, 54(2), 149-154.

Carver, C.S., & Sheier, M.F. (2003). Three Human Strengths. (In L.G Aspinwall & U.M. Staudinger. eds. *A Psychology of Human Strengths. Fundamental Questions and Future Directions for a Positive Psychology*. APA: Washington D.C. 369pp.)

Creswell, J.W. (2005). *Educational research: Planning, conducting and evaluating quantitative and qualitative research*. 2nd ed. Upper Saddle River, NJ: Pearson Education, Inc.

Daily Mail. (2006, August 7). University drop-out rates. *The Daily Mail*. Retrieved April 3, 2008, from http://www.dailymail.co.uk/pages/live/articles/news

Fibel, B. & Hale, W.D. (1978). The generalized expectancy for success scale – A new measure. *Journal of Consulting and Clinical Psychology*, 46, 924 -931.

Field, A. (2005). *Discovering statistics using SPSS*. 2nd ed. London: SAGE. 779p.

Gilbert, A. (2005). *Go MAD – The art of making a difference*. 2nd ed. Norfolk: Biddles Ltd.

Gilbert, A., & Chakravorty, I. (2005). *Go mad about coaching*. Norfolk: Biddles Ltd.

Go MAD® Thinking. Case-studies. Retrieved January 10, 2008, from http://www.gomadthinking.com/case-studies

Heppner, P.P & Petersen, C.H. (1982). The development and implications of a personal problem-solving inventory. *Journal of Counseling Psychology*, 29, 66-75.

Letseka, M. *et al.* (2007). Why students leave: The problem of high university drop-out rates. *HSRC Review*, 5 (3) Sept.

Luszczynska, A., Diehl, M., Gutiérrez-Doña, B., Kuusinen, P., & Schwarzer, R. (2004). Measuring one component of dispositional self-regulation: Attention control in goal pursuit. *Personality and Individual Differences*, 37(3), 55-566.

Maes, S., & Karoly, P. (2005). Self-regulation and intervention in physical health and illness: A review. *Applied Psychology: An International Review*, 54(2), 267-299.

Miller, M.T. (2004). Encouraging college student success: The instructional challenges, response strategies, and study skills of contemporary undergraduates. *Journal of Instructional Psychology*.

Mischel, W., & Ayduk, O. (2004). Willpower in a cognitive-affective processing system. The dynamics of delay gratification. (in R.F., Baumeister & K.D. Vohs. eds. Handbook of Self-Regulation. Research, Theory, and Applications. London: Guilford Press. 574pp.)

Neuman, W.L. (2000). *Social research methods: Qualitative and quantitative approaches*. 4th ed. Needham Heights, CA: Allyn & Bacon.

North-West University. (2008). Unpublished management information statistics from the North-West University's Vaal Triangle campus.

Perry, N.E., Phillips, L., & Hutchinson, L.R. (2006). Preparing student teachers to support for self-regulated learning. *Elementary School Journal, 106*, 237-254.

Peterson, C., & Seligman, M. E. P. (2004). Self-Regulation. In C. Peterson & M.E.P. Seligman. Character Strengths and Virtues. *A Handbook and Classification.* Oxford University Press.

Rachal, K.C., Daigle, S. & Rachal, W.S. (2007). Learning problems reported by college students: Are they using learning strategies? *Journal of Instructional Psychology.*

Reed, J.H., Schallert, D.L., & Deithloff, L.F. (2002). Investigating the interface between self-regulation and involvement processes. *Educational Psychologists*, 37(1), 53-57.

Rist, R.C. (1994). Influencing the policy process within qualitative research. In N.K. Denzin and Y.S. Lincoln. (Eds). *Handbook of Qualitative Research* (pp.545-557). Thousand Oaks: Sage Publications.

Robitschek, C. (1998). Personal growth initiative: The construct and its measure. *Measurement and Evaluation in Counseling and Development,* 30, 183–198.

Ryan, R.M., & Deci, E.L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist,* 55, 1, 68-78.

Steyn, H.S. (2000). Practical significance of the difference in means. *South African Journal of Industrial Psychology*, 26(3), 1-3.

Vancouver, J.B., & Day, D.V. (2005). Industrial and organisational research on self-regulation: From constructs to applications. *Applied Psychology: An International Review*, 54(2), 155-185.

FIGURES AND TABLES

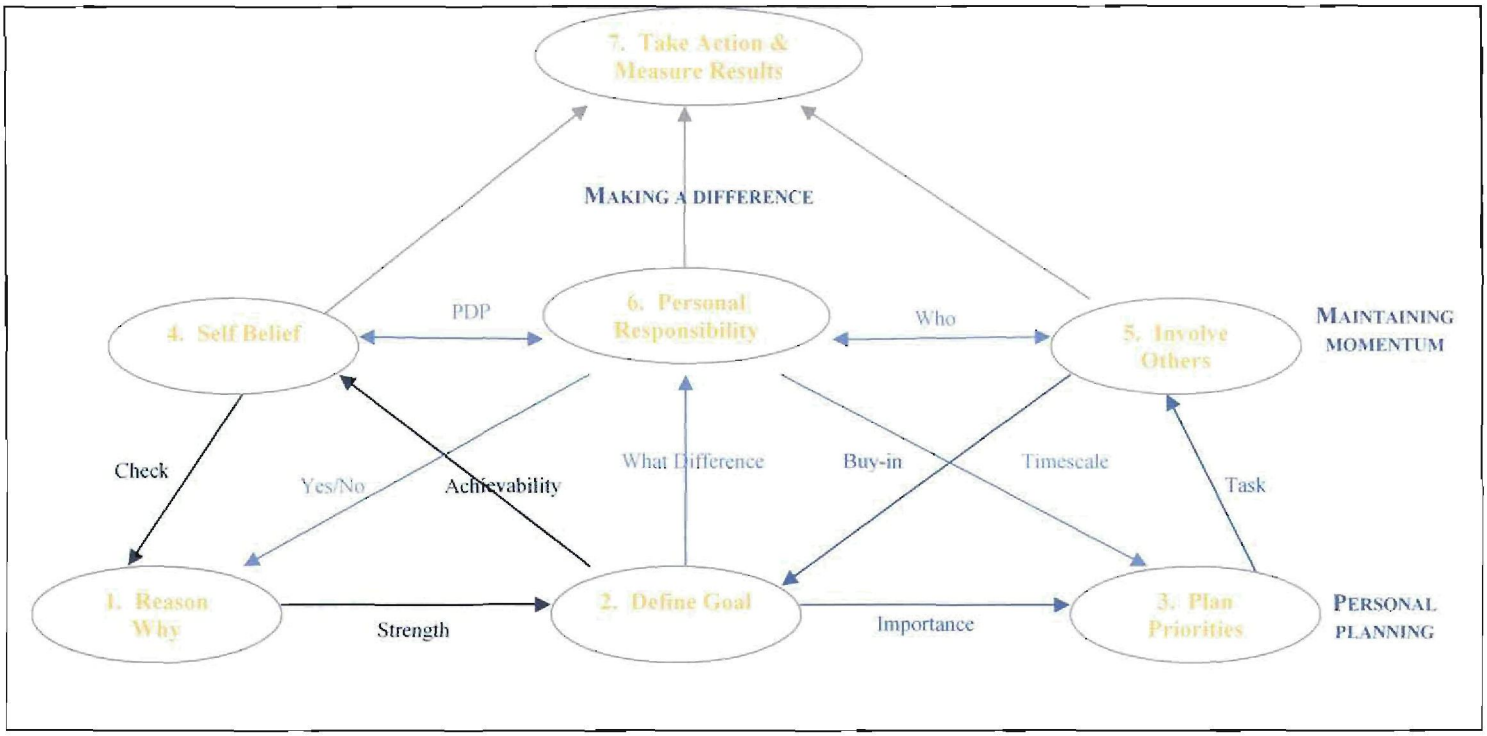

Figure 1. A representation of the Go MAD® system

Source: Gilbert and Chakravorty, 2005:29

Table 1. Pre-test means, standard deviations and differences between the experimental and control groups

VARIABLES	Experimental group		Control group		t-test for independent groups	Mann Whitney U
	mean	std dev	mean	std dev	p	p
GESS						
General efficacy	40.583	6.317	41.091	5.186	0.836	0.834
Career oriented expectancy	26.750	3.769	27.818	2.926	0.459	0.454
Personal problem solving	30.333	3.676	29.909	4.415	0.804	0.806
TOTAL	96.667	12.745	98.818	10.255	0.815	0.813
PGIS						
Personal growth	43.417	3.965	42.182	4.916	0.513	0.308
PSI						
Problem solving confidence	27.833	8.111	21.727	3.849	0.034 **	0.074
Approach-avoidance style	49.417	12.281	44.091	9.555	0.262	0.309
Personal control	18.333	3.055	16.364	4.032	0.198	0.533
TOTAL	95.583	20.057	82.182	16.049	0.093	0.148

Note: **GESS** = General Self Efficacy Scale; **PGIS** = Personal Growth Initiative Scale; **PSI** = Problem Solving Inventory **Practical significance**: *** large effect (d > 0.8; r > 0.5); ** medium effect (d > 0.5; r > 0.3); * small effect (d > 0.2; r>0.1)

Table 2. Pre- and post-test control group differences

VARIABLES	mean diff	std dev diff	t-test for dependent groups	Wilcoxon
			p	p
GESS				
General efficacy	1.375	5.804	0.524	0.301
Career oriented expectancy	0.125	4.643	0.941	0.484
Personal problem solving	0.375	5.263	0.846	0.834
TOTAL	1.875	13.778	0.712	0.327
PGIS				
Personal growth	1.250	4.301	0.438	0.554
PSI				
Problem solving confidence	9.625	16.405	0.141	0.353
Approach-avoidance style	9.625	16.431	0.142	0.128
Personal control	0.00	2.673	1.000	0.866
TOTAL	19.250	34.196	0.155	0.128

Note: **GESS** = General Self Efficacy Scale; **PGIS** = Personal Growth Initiative Scale; **PSI** = Problem Solving Inventory **Practical significance**: *** large effect (d > 0.8; r > 0.5); ** medium effect (d > 0.5; r > 0.3); * small effect (d > 0.2; r>0.1)

Table 3. Pre- and post-test experimental group differences

VARIABLES	mean diff	std dev diff	t-test for dependent groups	Wilcoxon
			p	p
GESS				
General efficacy	1.25	5.426	0.444	0.624
Career oriented expectancy	2.167	3.157	0.037^{S**}	0.028 *
Personal problem solving	1.417	4.481	0.297	0.343
TOTAL	4.833	12.335	0.202	0.248
PGIS				
Personal growth	2.750	2.598	0.004 **	0.009 *
PSI				
Problem solving confidence	-6.167	7.709	0.018 **	0.015
Approach-avoidance style	-11.667	9.168	0.001 ***	0.004 *
Personal control	-2.750	4.535	0.060	0.065
TOTAL	-20.583	17.780	0.002 ***	0.002 *

Note: **GESS** = General Self Efficacy Scale; **PGIS** = Personal Growth Initiative Scale; **PSI** = Problem Solving Inventory **Practical significance**: *** large effect (d > 0.8; r > 0.5); ** medium effect (d > 0.5; r > 0.3); * small effect (d > 0.2; r>0.1)

Table 4. Post-test between group differences adjusted for pre-test scores

VARIABLES	Adjusted means Experimental group	Adjusted means Control group	ANCOVA	Mann Whitney U
			p	p
GESS				
General efficacy	42.126	42.708	0.805	0.462
Career oriented expectancy	29.012	27.155	0.261	0.534
Personal problem solving	31.761	30.739	0.623	0.642
TOTAL	102.899	100.601	0.679	0.757
PGIS				
Personal growth	45.644	43.648	0.190	0.200
PSI				
Problem solving confidence	20.439	31.978	0.064	0.015 *
Approach-avoidance style	36.452	54.048	0.003 ***	0.001 *
Personal control	14.793	16.915	0.268	0.129
TOTAL	71.242	103.383	0.016	0.000 *

Note: **GESS** = General Self Efficacy Scale; **PGIS** = Personal Growth Initiative Scale; **PSI** = Problem Solving Inventory **Practical significance**: *** large effect (d > 0.8; r > 0.5); ** medium effect (d > 0.5; r > 0.3); * small effect (d > 0.2; r>0.1)

Table 5. Participants' subjective experience of the Go MAD® programme (n = 12)

Theme 1 Perception of success	Theme 2 Subjective experience of the difficulty and usefulness of Go MAD®	Theme 3 Perception of the newly acquired self-regulatory skills
Perception of success Successful = 9 (75%) Not successful = 3 (25%) **Success according to type of goal selected by participants:** Academic = 3/5 (60%) Reading a book = 2/2 (100%) Communication = 1/1 (100%) Religion = 1/1 (100%) Sport = 1/1 (100%) Financial = 1/1 (100%) Relational = 0/1 (0%)	**Difficulty of programme** Easy = 9 (75%) Difficult = 3 (25%) **Usefulness of programme** Useful = 12 (100%) Not useful = 0 (0%) **Most helpful key principles of programme***: Personal responsibility = 6 (50%) Self belief = 5 (42%) Reason why = 3 (25%) Define goal = 3 (25%) Plan priority = 3 (25%) Involve others = 3 (25%) Take action and measure results = 2 (17%) **Would participant apply Go MAD® principles & skills in future?** Yes = 12 (100%) No = 0 (0%)	**Difficulty of applying new skills** Easy = 5 (41.7%) Moderate = 6 (50%) Difficult = 1 (8.3 %) **Stumbling blocks** Negative thoughts **How self-regulatory skills assisted in achieving goals** Staying positive Keeping goals in mind Believing in self Managing time Following through with priorities Involving others

Note: *Participants could choose more than one aspect of the programme, therefore totals add up to more than 100%