

*An analysis of the determinants of the self-regulated learning
abilities of students from an environmentally-deprived community*

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DECLARATION

I declare that an analysis of the determinants of the self-regulated learning abilities of students from an environmentally-deprived community is my own work. It is being submitted for the PHILOSOPHIAE DOCTOR degree to the Potchefstroomse Universiteit vir Christelike Hoër Onderwys, Potchefstroom. It has not been submitted before, for any degree or examination in any other University.

MARIVATE JOSEPH MATHEBULA

DEDICATION

In memory of my father, **GEORGE MATIEBULA**

1910-1980

OPSOMMING

'N ANALISE VAN DIE DETERMINANTE VAN DIE SELF-GEREGULEERDE LEERVAARDIGHEDE VAN STUDENTE UIT 'N OMGEWINGS-GEDEPRIVEERDE GEMEENSAP

Die doel van hierdie studie was om die determinante van self-gereguleerde leervaardighede van studente uit 'n omgewings-gedepriveerde gemeenskap te analiseer, en te bepaal wat die verhouding is tussen self-gereguleerde leer en die akademiese prestasie van die studente in Engels en Wiskunde.

Om hierdie doel te bereik, is 'n literatuurstudie gedoen ten einde die invloed van persoonlike, omgewings- en gedragsveranderlikes op self-gereguleerde leer en akademiese prestasie in Engels en Wiskunde by studente uit 'n omgewings-gedepriveerde gemeenskap te analiseer.

Uit die literatuuroorsig is bepaal dat daar 'n verhouding bestaan tussen persoonlike veranderlikes, self-gereguleerde leer en akademiese prestasie, aangesien self-gereguleerde leerders persone is wat beplan, doelwitte daarstel, organiseer, hulleself onderrig, hulself monitor en self evalueer tydens verskillende fases gedurende die leerproses. Self-gereguleerde leerders sien hulleself as bekwaam, self-wersaam en outonoom. Hulle is self-gemotiveerd, harde werkers en vertoon deurstellingsvermoë en volharding tydens die leerproses.

Met verwysing na die verhouding tussen omgewingsveranderlikes, self-gereguleerde leer en akademiese prestasie, het die literatuuroorsig aangetoon dat gesinsveranderlikes (gesinsgrootte, geboorte volgorde en spasiëring tussen kinders) en skolasiese veranderlikes soos onder andere, grootte van die skool en klasse, akademiese prestasie beïnvloed. In klein gesinne het ouers meer tyd om aandag te gee aan hulle kinders en hulle kognitiewe ontwikkeling aandag te gee, deur hulle taal (moedertaal) te leer, te leer om vrae te beantwoord en is hulle ook beter daartoe in staat om die kinders te onderhou. In teenstelling hiermee, voorsien groot gesinne positiewe geleentehede vir die ontwikkeling van interpersoonlike verhoudinge, wat nie die geval is in klein gesinne nie, met die gevolg dat kinders makliker met ouer persone in wisselwerking kan tree, wat dan ook dien as bronne van intellektuele stimulasie.

Op grond van die literatuuroorsig is ook vasgestel dat daar 'n verwantskap is tussen gedragsveranderlikes, self-gereguleerde leer en akademiese prestasie. Daaruit is afgelei dat self-gereguleerde leerders omgewings selekteer, struktureer en skep wat leer

optimaliseer; hulle soek advies en inligting; hulle leer hulleself; en versterk hulleself tydens toepassings. Hulle gebruik ook verskeie strategieë wat hulle akademiese prestasie beïnvloed.

Deur middel van 'n eksperimentele ondersoek is drie hipoteses gestel betreffende die verhouding tussen persoonlike-, omgewings- en gedragsveranderlikes, self-gereguleerde leer en akademiese prestasie in Engels en Wiskunde onderskeidelik.

Deur middel van 'n meervoudige regressie analise en ANOVA is daar vasgestel dat daar 'n statisties beduidende verhouding bestaan tussen persoonlike veranderlikes, soos onder andere die student se houding teenoor die skool, intrinsieke waarde tot leer en leerstrategieë soos die seleksie van kern idees, konsentrasie, studie hulpmiddels, gebruik van strategie en self-gereguleerde leer. Studente wat meer self-gereguleerd is, het 'n positiewer houding, het 'n hoër intrinsieke waarde, konsentreer beter, en is meer aangepas vir die seleksie van kern idees, ens., as studente wat minder self-gereguleerd is. Hierdie verskille is van weinige opvoedkundige waarde, behalwe vir die gebruik van strategie waar die verskille van groot opvoedkundige waarde is of prakties betekenisvol is.

Daar is 'n statisties beduidende verhouding tussen persoonlike veranderlikes, soos 'n student se motivering om in die skool te slaag en 'n intrinsieke belangstelling in studeer, omgewingsveranderlikes, soos 'n student se hoër sosio-ekonomiese status, en leerstrategieë, soos konsentrasie en self-gereguleerde leer en akademiese prestasie in Engels. Studente wat akademies hoër presteer handhaaf 'n hoër konsentrasie en is meer aangepas in die gebruik van strategieë as studente wat akademies swakker presteer. Hierdie verskille is van weinige opvoedkundige waarde behalwe vir die gebruik van strategie waar die verskille van groot opvoedkundige waarde is of prakties betekenisvol is; en daar is 'n statisties beduidende verhouding tussen persoonlike veranderlikes, soos 'n student se ouderdom en self-werksaamheid vir akademiese prestasie, omgewingsveranderlikes, soos 'n student se sosio-ekonomiese status en leefruimte, en leerstrategieë soos self-gereguleerde leer, en akademiese prestasie in Wiskunde. Studente met 'n lae sosio-ekonomiese status en wat minder leefruimte het, is meer self-gereguleerd en meer aangepas vir die gebruik van strategieë as studente met 'n hoër sosio-ekonomiese status en met genoeg leefruimte. Hierdie verskille is van weinige opvoedkundige waarde behalwe vir die gebruik van strategie waar die verskille van groot opvoedkundige waarde is of prakties betekenisvol is.

Ten slotte blyk dit dat alhoewel daar persoonlike, omgewings- en gedragsveranderlikes is wat betekenisvol bydra tot of self-gereguleerde leer of akademiese prestasie in Engels en

Wiskunde, en alhoewel daar verskille bestaan tussen studente wat meer self-gereguleerd is en studente wat minder self-gereguleerd is en tussen hoë en lae presteerders, hierdie verskille nie van veel opvoedkundige belang is nie behalwe by strategiegebruik. Studente wat meer self-gereguleerd is, is beter strategiegebruikers as studente wat minder self-gereguleerd is. Dit mag daarom van waarde wees om studente op te lei om strategiegebruikers te wees.

SUMMARY

AN ANALYSIS OF THE DETERMINANTS OF THE SELF-REGULATED LEARNING ABILITIES OF STUDENTS FROM AN ENVIRONMENTALLY-DEPRIVED COMMUNITY

The aim of this study was to analyse the determinants of self-regulated learning abilities of students from an environmentally-deprived community, and to determine the relationship between self-regulated learning and academic achievement of the above-mentioned students in English and maths.

To achieve this aim, a literature research was undertaken to analyse the influence of personal, environmental and behavioural variables on self-regulated learning and academic achievement in English and maths of students from an environmentally-deprived community. From the review of the literature, it was concluded that there is a relationship between personal variables, self-regulated learning and academic achievement as self-regulated learners are persons who plan, set goals, organise, self-instruct, self-monitor, and self-evaluate at various stages during the process of learning. Self-regulated learners perceive themselves as competent, self-efficacious and autonomous. They are self-starters who display an extraordinary amount of effort and persistence during the learning process.

With reference to the relationship between environmental variables, self-regulated learning and academic achievement, the literature review revealed that family variables (i.e., family size, sibsize, birth order and the spacing between siblings) and school variables such as school size and class size influence academic achievement. In a small family, parents have more time to attend to their children and their cognitive development, by teaching them language (i.e., mother tongue), answering questions and supporting them. In contrast, large families provide positive opportunities for interpersonal relationships that are not available in small families, whereby an individual child can easily interact with older members who all serve as sources of intellectual stimulation.

On the basis of the review of literature, it was also concluded that there is a relationship between behavioural variables, self-regulated learning and academic achievement. It was inferred that self-regulated students select, structure and create environments that optimise learning; they seek out advice and information; they self-instruct during acquisition and self-reinforce during performance enactments. They also use various strategies that influence their academic achievement.

By means of an experimental investigation, three hypotheses concerning the relationship between personal, environmental and behavioural variables, self-regulated learning, and academic achievement in English and maths were respectively set.

By means of multiple regression analyses and ANOVA, it was determined that there is a statistically significant relationship between personal variables such as a students' attitude towards school and intrinsic value towards learning and learning strategies such as selecting main ideas, concentration, study aids, strategy use and self-regulated learning. Students who are more self-regulated, have a more positive attitude, have a higher intrinsic value and are more adapted at selecting main ideas, concentration etc., than students who are less self-regulated. These differences are of little educational value except for strategy use where the difference is of great educational or practical significance.

There is a statistically significant relationship between personal variables such as a students' motivation for succeeding in school and an intrinsic interest in studying, environmental variables such as students' high socio-economic status families and learning strategies such as concentration, strategy use and self-regulated learning and academic achievement in English. Students who perform at a high level of academic achievement, maintain a high concentration and are more adapted at strategy use than students who perform at a low level of academic achievement. These differences are of little educational value except for strategy use where the difference is of great educational or practical significance; and there is a statistically significant relationship between personal variables such as a students' age in school and self-efficacy for academic achievement, environmental variables such as the socio-economic status of students' families and living space and between learning strategies such as self-regulated learning and academic achievement in maths. Students who are from low socio-economic status families and have less living space are more self-regulated and more adapted to strategy use than students from high socio-economic status families and those who have enough living space. The differences are of little educational value except for strategy use where the difference is of great educational or practical significance.

In conclusion, it seems that although there are personal, environmental and behavioural variables that contribute significantly to either self-regulated learning or academic achievement in English and maths and that there are differences between students that are more self-regulated and students that are less self-regulated and between high and low achievers, these differences are not of much educational significance except for strategy use. Students who are more self-regulated are better strategy users than less self-

regulated students. It therefore may be of value to train students to be better strategy users.

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