

Self-Concept and Students with Disabilities in Tertiary Education.

Previous studies have indicated that self-concept is correlated with academic ability, the transition between life stages, and the management of illness or disability. Students with disabilities in tertiary education experience difficulties in comparison with their non-disabled peers, particularly during the first years of study. This study proposed that a number of variables including gender,

type of course, and the age of students had an impact on self-concept and academic results. Some of the results indicate this to be the case, and possible explanations are given, along with recommendations for increasing self-concept in the tertiary environment. This study was undertaken as the completion of a Master Education (Special Ed).

Social cognitive theory is one perspective employed by educators and researchers alike to investigate and explain the complexities surrounding the learning process. These concepts can be traced back to the ancient Greeks (including Plato, Aristotle, and Socrates) with their method of philosophical mentoring to facilitate teaching, and emphasis on self-awareness within one's own environment. From this perspective, more recent theorists such as James, Vygotsky, and Piaget have sought to move self-concept and awareness of self from the realm of philosophy to psychology and to outline its parameters. Researchers in the last three decades have defined constructs including self-efficacy, self-regulation, self-concept and locus of self to expand the realm of social cognitive theory, and their theories have been investigated a range of settings (both geographical and situational), stages in education, and diverse variables (gender, age, disability, ethnicity).

Self-concept can be defined as:

‘stressing the idea that much of human learning occurs in a social environment. By observing others, people acquire knowledge, rules, skills, strategies, beliefs, and attitudes. Individuals also learn from models the usefulness and appropriateness of behaviours and the consequences of modeled behaviours, and they act in accordance with beliefs about their capabilities and the expected outcomes of their actions’.

(Schunk, 2000, p 78)

Up until 1976, self-concept was viewed as a unidimensional structure and its measurement of global and general self-concept provided 'inconsistent, confounded and ambiguous results' (Byrne and Gavin, 1996). Accordingly, Shavelson called for 'construct definition and theoretical structure' to be addressed before research continued. Shavelson, Hubner, and Stanton looked back to the

theories of James and derived a multidimensional and hierarchical model descending from general self-concept.

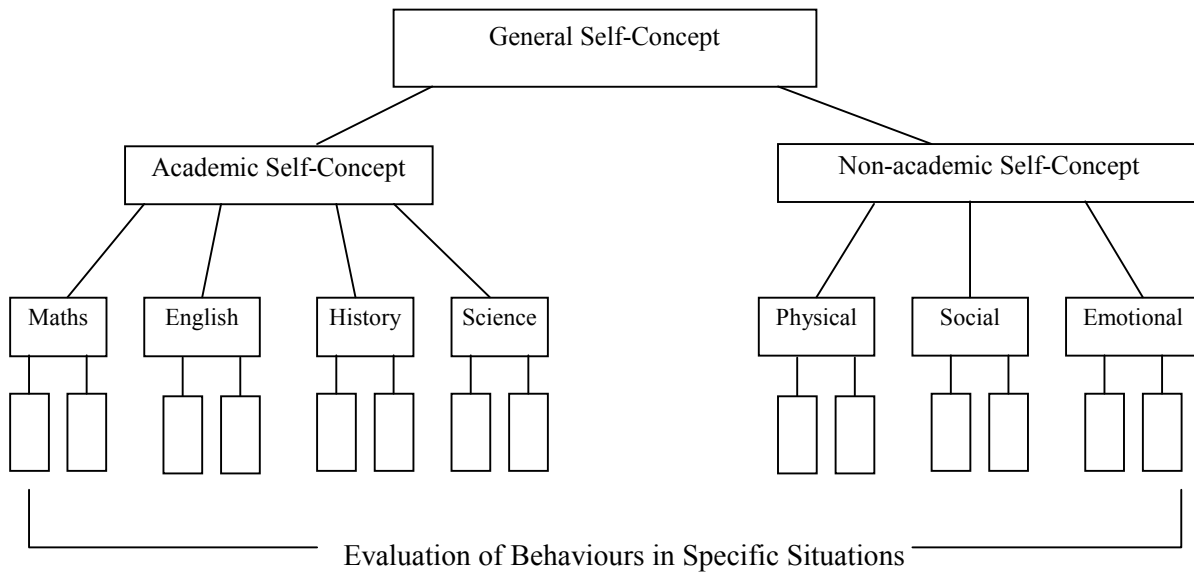


Figure 1: Model of Self-concept proposed by Shavelson, Hubner, and Stanton (1976).

The model separates academic and nonacademic components of the self-concept, which has been supported by subsequent research in the area (summarised by Marsh's 1993 review of studies showing that academic achievement had a significant correlation to academic self-concept but was almost unrelated to the nonacademic and global components of self-concept). This model has since been refined and expanded. The model currently used by many researchers of self-concept is the hierarchical and multifaceted model (HMFM) where 'general self-concept is at the apex of the hierarchy, supporting increasingly more specific aspects (facets) as the hierarchy is descended' (Watkins, et al, 1996). Self-concept has been further defined with seven major features according to Marsh, Barnes and Hocevar (p 1361)

'Those features are . . . a) organised and structured, in that people categorise information they have about themselves and relate these categories to one another; b) multifaceted, and the particular facets reflect the category system adopted by a person or shared by a group; c) hierarchical, with quite specific self-perceptions at the base moving to inferences in sub areas and then to self in general at the apex; d) stable at the apex of the hierarchy, but as one descends the hierarchy becomes more situationally specific and thus less stable; e) better differentiated for older children with facets becoming more distinct with age; f) both evaluative and descriptive; and g) differentiable from other constructs.'

H.W. Marsh and colleagues have developed the SDQ (Self-Development Questionnaires) based on this hierarchical model to identify degrees of self-concept in subjects at different levels of development (version I – ages 8-12, version II – ages 13-17, and version III – late adolescence to adulthood). This series of questionnaires have been applied in numerous situations (education,

sports training, health management, and body perception) and over the age spans specified to validate their accuracy and identifying the actual presence of self-concept in the human psyche (Marsh, and colleagues, 1982, 1983, 1990, 1992). These have been adapted into other languages and international settings (including Chinese - Leung, Chui, & Lau, 1999, Nepalese - Watkins, Lam, and Regmi, 1991, and Filipino - Watkins and Gutierrez, 1989). Hattie's 1996 review of self-concept surmised that the SDQ's were 'the best set of measures available' (p83). The results obtained in research have shown support for the multifaceted, hierarchical model of self-concept as proposed by Shavelson (1976).

Other measures of self-concept include the Tennessee Self Concept Scales, Piers-Harris Children's Self-Concept Scale, the Sear's Self-Concept Inventory, the Gordon's How I See Myself Scale, and the Coopersmith Self-Esteem Inventory. The Tennessee Self Concept Scales are one of the most used self-concept instruments (Marsh, 1990a, p55), however, Wylie's review is particularly critical - 'no justification can be offered, either *a priori* analysis in terms of acceptable methodological criteria or from a survey of empirical results to justify using the scale' (1974). Subsequent works have sought to rectify these claims, but most researchers refine the scales to suit their particular needs and increase validity in specific settings rather than adopting the whole scales in their methodological approach.

Research centered on students with disabilities indicates that a heightened self-concept greatly enhances academic achievement, the students' awareness of their disability and how to negotiate reasonable accommodations, and can also smooth the transition between settings. Students with learning disabilities have the majority of research into the impact of self-concept on their ability to study. Harris' 1995 work with people with learning disabilities focuses on the impression labeling and stereotyping has on their self-concept. 'The cognitive process of categorising people into groups accentuates the similarities within groups and the difference between groups. The lower the privileges of group membership, the less incentive there will be for people to want to be a part of the group. Self-concept can be thought of as a collection of self-categorisations referring to group affiliation. The relative value of these categorisations contributes to our self-esteem' (p348). This statement can be applied to the categorisation of all disability types - it is often the one factor that will prevent a student with a disability from seeking help - they need to identify as belonging to a group or having a diagnosis for their support needs to be identified and provided. It is the author's experience that this categorisation can be more damaging to a student's level of self-esteem than the actual disability itself. Harris calls for a challenge to terminology to identify impairment versus disability to create enabling environments and maximise the potential of self-concept to grow. Grolnick and Ryan (1990) concur with this viewpoint; the act of labeling students with a disability can decrease self-concept, and this is particularly applicable for those with learning disabilities

when the label and diagnosis focuses on IQ and the person's level of deficit compared with the 'normal' population. Students in Grolnick and Ryan's research saw 'the control of success and failure outcomes as resting in the hands of powerful others' limiting their locus of control, ability to self-regulate, and undermining the ability to build a self-concept. The work of Kavale and Forness (1996), and Rothman and Cosden (1995), both indicate a high level of self-concept is related to increasing academic achievement for students with learning disabilities in the school environment, and Miller (1997), and Shaw (1991) support this requirement for the same cohort as they move into their post-secondary studies. The indicators in this research shows that heightened self-concept is essential for life-long adjustments for people living with a learning disability and coping within the realm of their peers.

Similar results in self-concept have been found for students with a vision impairment (Sacks and Corn, 1996), which encourage teaching staff to create a supportive environment fostering the development of self-concept before the transition to the post-secondary world. This environment is not as easily created in the post-secondary environment, where many teaching staff emphasise assessments based on peer competition and performance goals (which many students with decreased self-concept or perception of ability will avoid rather than risk failure - Harackiewicz, Barron, and Elliot, 1998). However, if students have been educated in an environment encouraging the development of self-concept, and post-secondary educators are aware of their support needs, it is more likely that their learning process in the tertiary realm will progress smoothly. Students with a chronic illness also experience decreased self-concept in line with a lower self-image (Leung, et al, 1997 in adolescents and young adults with Cystic Fibrosis and Insulin-dependent Diabetes Mellitus). This was related to the patients spending decreased time with their peers in the classroom and social life, and the researchers called for medical and educational staff to be aware of the phenomenon to prevent long-term effects. Yan and co-workers (1999) reviewed self-concept for children with a range of chronic illnesses and found that academic achievement was a strong predictor of self-concept; age was a significant predictor of overall self-concept; sex was a significant predictor of social behaviour, anxiety, and popularity; and the duration of the illness was a significant predictor of physical appearance and attributes. Adamson and Lyxell (1996) in their study of positive and negative aspects of self-concept found that Swedish College students with positive self-concept are well connected to other people and to life; they had autonomy with a strong belief in their resources and own abilities. Those with a negative self-concept showed a lack of control, and high levels of anxiety about the future combined with a mental preoccupation with thoughts of suicide and actual suicide attempts. Self-concept levels can vary across different categories other than disability. Alfeld-Liro (1998) found that male college students fare better in the transition between secondary and tertiary education in terms of their self-concept - it becomes more positive over the transition. Male and female students start with same level of self-concept, and females decline over the first 18 months of studies before starting to catch up with their male counterparts.

Self-efficacy can be distinguished from self-concept by Schunk's simple description – 'self-efficacy refers to perceptions of specific capabilities; self-concept is one's general self-perception

that includes efficacy in different areas' (2000, p 108). The two theories have been clearly delineated by some researchers, and used interchangeably by others (particularly in the early stages of development), however, they now appear to have their own identity, and defined characteristics. Self-efficacy was clearly defined in Bandura's seminal work on the construct (1986) as a persons perceived capability of carrying out a particular action. The path of delineating this construct has been similar to that of self-concept with a combination of empirical and narrative or philosophical research. The correlation between levels of self-efficacy and actual learning achievement are quite strong, depending on the setting and the attributes of the student sample (for example, academic performance in Science for Nursing students, Andrew and Vialle, 1998; overall achievement for first year Education students, Archer, 1998). Research has also indicated a strong relationship for personal management of the effects of some illnesses or disabilities (HIV status - Chesney, et al, 1996; Multiple Sclerosis - Suifbergen and Rogers, 1997; pulmonary disease - Scherer and Schmieder, 1997; angioplasty - Perkins and Jenkins, 1998; Rheumatoid Arthritis - Escalante and Del Rincon, 1999). These studies have been supplemented by researchers in education studying students with disabilities and their able-bodied peers in primary and secondary schooling that indicate a relationship between self-efficacy and the learning process in domain specific areas (maths, literacy, reading comprehension) (Schunk, 1989; Pajares and Graham, 1999; Ness and Price, 1990). Bandura's work (1986, 1989, and with others - 1996) indicates that increasing self-efficacy in students with disabilities will not only improve the transition process between secondary and tertiary education, but will make students more aware of their disability, increase their ability to communicate with teaching staff, manage their time, and the effects of their disability, and will ultimately improve their academic results. Zimmerman's 1997 study in shifting process goals to outcome goals found that 'self-regulated strategy process goals influence the types of attributions that students make . . . when socially validated learning strategies are modeled and adopted as process goals to guide self-directed practice and self-monitoring, students more frequently make attributions to controllable personal sources and experience gains in self-perceptions of efficacy and intrinsic motivation to persevere the goal further' (p 32). Earlier research also supports this concept;

'it is thought that the degree to which a person assumes control, expresses needs, self-advocates, and takes action affects his or her eventual outcome in terms of career choices, education, vocation, and other such pursuits . . . students making a successful transition to post-secondary education require an awareness of academic and social strengths, the ability to express (it) to faculty and staff, an awareness of service needs and appropriate accommodations and the ability to request assistance where necessary'.

(Durlack, et al, 1994)

For students who have a vision impairment or who are blind, perceived social support greatly helps with their level of self-regulation and in turn facilitates their career development (Chang, 1999). It is important to recognise the complexity of the social cognitive theory in order to understand the interacting concepts. Although self-concept and self-efficacy have been isolated as distinct, they

provide an interweaving pattern of theoretical and practical criteria underpinning learning as a whole. The copious amounts of research in both areas, particularly in pre-tertiary education and learning disabilities indicates a strong application for their place in the teaching of students in tertiary education, especially during the sensitive transition period.

This study aims to examine differences in self-concept for students with disabilities in a tertiary education environment. All thirteen aspects of the SDQIII were measured (Academic - Math, Verbal, General Academic and Problem Solving; Nonacademic - Physical Ability, Physical Appearance, Relations with the same sex, Relations with the opposite sex, Relations with parents, Spiritual values/Religion, Honesty/trustworthiness, Emotional stability; General Self) at one point in time. Social cognitive theory dictates that students (particularly those with disabilities) come to the educational environment with more than just their prior educational experiences. This holistic pattern of life learning in part can define who the student is, and how they will cope with the impact of change in their environment. Investigations for this study according to findings in the literature are proposed:

Relationship 1 - Gender Differences

It is likely that there will be a difference in the self-concept levels for males and females. It is possible that the female students will exhibit lower levels than their male peers (Marsh, 1990a, p30).

Relationship 2: Age Differences

The age of participants will vary across the study. Some mature-aged students will be in their first year of study and other students younger than them will be completing postgraduate courses. Some research indicates that self-concept remains stable over the life span - others indicate that it can increase with experience. It is therefore possible that older students will exhibit higher levels of self-concept than the younger students in this study (Marsh, 1990a, p30).

Relationship 3: Length of Enrollment in Tertiary Study Differences

As mentioned above, the length of enrollment (both in current course and previous tertiary courses) will vary across the student group. It is possible that the student's level of self-concept will change for students enrolled over longer time spans in tertiary study.

Relationship 4: Disability Type Differences

Researchers have found that people with disabilities have lower self-concept than their able-bodied counterparts. It has also been found that people with different types of disability will have different levels of self-concept (a learning disability may not affect someone's perception of their physical

appearance as much as student with quadriplegia, but it may affect them more in the academic specific ratings, and it is possible that these results will indicate the same.

Relationship 5: Faculty of Enrollment Differences

It is possible that the levels of self-concept in students will vary across their faculty of enrollment. As some subject areas can be perceived to have a high Maths (the Sciences) or verbal component (the Arts, Music, or Law), students may naturally gravitate towards the course they are most likely to succeed in. It is hypothesised that self-concept will vary for students enrolled in different course types, particularly over the three academic criteria. It is not known at this stage to what extent or in which categories this will be most manifest.

H6: Academic Achievement

Academic achievement has been studied in innumerable contexts for self-concept. It has been established that self-concept does have an impact on academic achievement, whether positive or negative (Heyman, 1990). It is possible that a correlation could be observed between student's level of self-concept and their academic results.

It is proposed that the results will not only pinpoint areas of high and low self-concept and esteem, but also indicate key involvement for personnel working with students with disabilities preparing for tertiary education either directly from secondary school, or as mature-aged students. Conyers, Koch and Szymanski (1998) have found occupational self-concept need to be fully established for graduates with a physical or sensory disability - the results of this project may further expand on this to call for a life-long self-concept drive for people with disabilities to transfer ability across all stages of life-span transition.

METHODOLOGY

Subjects

The subjects will consist of all students registered with the Disability Services Office at the University of Sydney. At the time of the study these students numbered 602 and could be placed in the following categories:

Gender:	Male/female
Age:	18 to 72 years
Background:	Two ethnic and racial backgrounds: Aboriginal and Non-English Speaking (NESB)
Type of study:	Undergraduate and Post-graduate

Disability Type: Categories of Physical, Vision, Hearing, Learning, Psychological, Medical, Neurological and Speech impairments (as *per* the Commonwealth Disability Discrimination Act, 1992)

Actual sample number was determined by number of registered students at the time of the questionnaire mailing and the final number from the response rate. Students were able to volunteer by their decision to participate or abstain. All students were currently enrolled in tertiary studies, and had provided documentation supporting the nature and extent of their disability from a qualified practitioner.

Design

The project sought to determine variance in levels of self-concept by using a questionnaire to gain data to enable a comparison across the following criteria:

Faculty of enrollment (see Appendix D Questionnaire for a listing)

Disability type (as *per* the listing above)

Gender

Type of enrollment (undergraduate vs. postgraduate)

Years of enrollment at University

Age (in ten categories at five-year intervals commencing at 18)

Academic results (grade point averages for Semester 1, 2000).

The questionnaire return was either by reply paid envelope, or deposit into a box at the Reception counter of Student Services that was cleared daily (this location was well known to all students receiving the questionnaire). The results were analysed via a series of multivariate analyses of variance using computer statistical package SPSS^x (Statistical Package for the Social Sciences). The details of the SDQIII analysis are clearly outlined in the manual (reproduced in part in Appendix D). Potentially confounding variables include the student's type of secondary schooling; their mindset at the time of the questionnaire completion (they may be under stress at that particular time due to academic or other pressures); or their disability may impact on their reading or understanding of the questions. Every attempt was made to limit these variables (students were able to request a phone interview from an independent person; interpreters were available if required; and alternative formats were provided to students with vision and learning impairments).

Materials

The primary material, the questionnaire, consists of three sections – the student's personal details (name, date of birth, current residential suburb, and disability type), details of previous education

and current tertiary enrollment, and the self-concept criteria. The self-concept questions are used with permission from H.W. Marsh's Self-Description Questionnaire III (SDQIII) utilising the areas of Academic (Maths, Verbal, and General-School criteria), Non-Academic (including problem solving, emotional stability and physical appearance) and Global (Total and General Self) self-concept inventories. The Non-Academic section is used in this study as many of the criteria can impact on a student's learning ability in tertiary education – if a student has a low sense of emotional stability, it can make class attendance and group work difficult. Level 3 is applicable for late adolescents and adults – Levels I and II measure concepts in ages 8-12 and 13-17, respectively. The brief characterisation of the SDQIII is:

ACADEMIC

1	Math	10	I have good mathematical skills/reasoning ability
2	Verbal	10	I have good verbal skills/reasoning ability
3	General Academic	10	I am a good student in most school subjects
4	Problem Solving	10	I am good at problem solving/creative thinking

NONACADEMIC

5	Physical Ability	10	I am good at sports and physical activities
6	Physical Appearance	10	I am physically attractive/good looking
7	Relations with the same sex	10	I have good interactions/relationships with members of the same sex
8	Relations with the opposite sex	10	I have good interactions/relationships with members of the opposite sex
9	Relations with parents	10	I have good interactions/relationships with my parents
10	Spiritual values/religion	12	I am a religious/spiritual person
11	Honesty/trustworthiness	12	I am an honest, reliable, trustworthy person
12	Emotional Stability	12	I am an emotionally stable person

GENERAL

13	General Self	12	I have self-respect, self-acceptance, positive self-feelings and a good self-concept
14	Total Score	136	The sum responses to all 136 items

The SDQIII consists of 136 items in total, taking 20-25 minutes to complete (however, with the initial sections, it is anticipated that the final questionnaire could have taken respondents up to 30 minutes to complete). The SDQIII series of questions have shown reliability over numerous testing in various situations. The SDQIII has not (to the researcher's knowledge) been used to specifically

test self-concept for students with disabilities in tertiary education (however it has been used extensively in studies of students and people with disabilities, as well as non-disabled students in tertiary education). A number of the items are reversed and require negative scoring in the data analysis stage.

Timeline

- Commencement: 10 September 2000. Students were mailed Questionnaires (Appendix D) with a Subject Information Statement (Appendix A), and Consent Form (Appendix B) for return by 22 September 2000. Telephone interviews were offered to two students who are blind.
- Collation of results: from date of receipt. Reminder letter (Appendix C) was mailed on same date.
- Analysis of results: from 30 September 2000.
- Debriefing: 13 October 2000 for students wishing to discuss aspects of the project. Individuals could contact before if concerned (see Subject Information Statement). The option to attend this session was not taken up by any students.
- Completion of project: November 6 2000.

ETHICAL IMPLICATIONS

Subject Information Sheet (Appendix A)

The Information Sheet clearly outlines the student's right to voluntarily participate in the study, and states that the results of the questionnaire will be compared with their academic results.

Confidentiality is assured, and individual records will be kept after the analysis of results for a period of five years in a locked filing cabinet within the Disability Services Office (all will be shredded and disposed of as confidential waste in the University processing system after this time).

Letter of Consent (Appendix B)

Students needed to sign this letter of consent agreeing to participate in the study.

ReminderLetter (Appendix C)

This letter was sent to all students as per the timeline (above) who had not returned their questionnaires.

Ethics Applications

These applications were forwarded to the University of Sydney Human Research Ethics Committee, and the Head of Department, School of Teacher Education, Charles Sturt University for their

consideration. Written permission to conduct the research was obtained from both prior to the commencement of the study.

Debriefing Session

Attendance at this session was voluntary and a qualified counselor was available to assist the researcher should any participant have had any concerns about issues raised by the questionnaire. The session was not attended by any participants. The students also have free access to the results, but not to their individual scores. A summary of the overall results will be published in the last edition of the student disability newsletter 'Discourse' for 2000.

RESULTS

Demographic Data

Frequency Results

These can be seen in full in Appendix E. Total responses were 106 from a total mailout questionnaire mailout of 602. 46 responses were received after the reminder letter was posted.

Analysis of Results

The results of the questionnaires have been analysed through statistical analysis package SPSS^x (Version 10.1) with the six variables and 13 categories of the SDQIII in a Multivariate Analysis of Variance (MANOVA) design. Some disability types as well as other variables may not be included in the final presentation due to limited numbers in each category. As mentioned previously, all categories of the SDQIII will be employed as it has been shown that these can relate to a student's ability to cope in tertiary studies - if not directly with increasing their grade point average.

The complete analysis of results will be available in the Conference presentation. Due to the complexity of the cohort and the responses this analysis will not be complete until November 2000. A brief summary of results with possible significance are below.

Disability Type

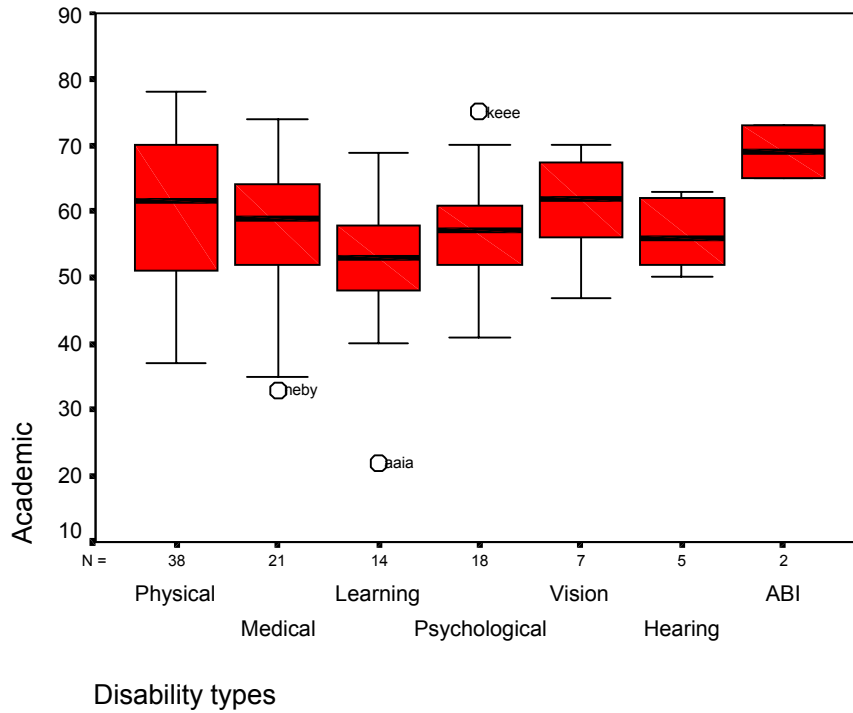


Figure 2: Boxplot, Disability Type vs Academic Self-Concept

Figure 2 indicates a difference between the levels of self-concept by type of disability.

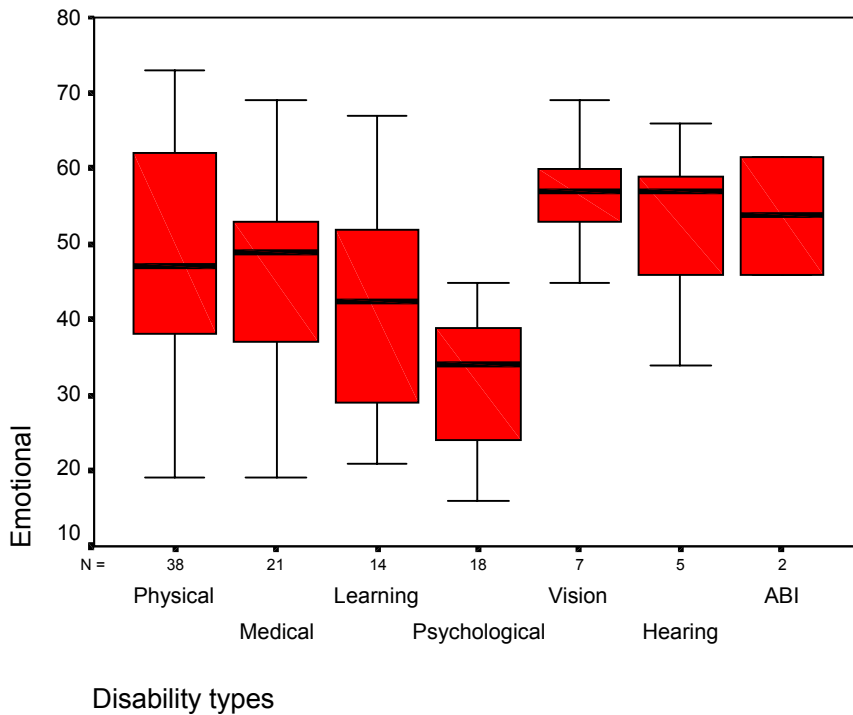
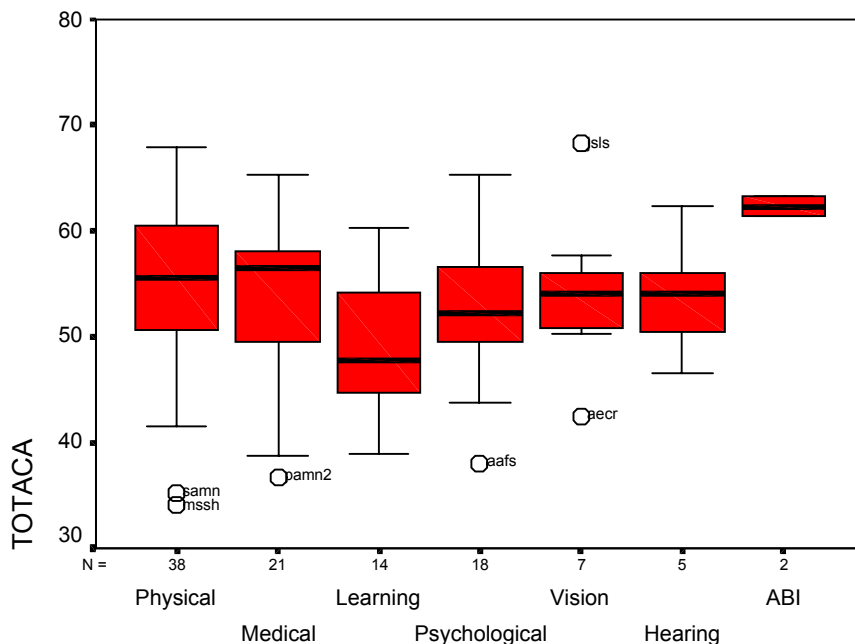


Figure 3: Boxplot - Disability Type vs Emotional Self-Concept

Figure 3 indicates differences in levels of Emotional Self-Concept by type of disability. The most noticeable difference here are the lower levels of self-concept for students with psychological

disabilities, and the more positive levels for those with vision or hearing impairments or an acquired brain injury.



Disability types

Figure 4: Boxplot - Disability Type vs Total Academic Self-Concept.

Figure 4 summarises the differences in levels of total academic self-concept across disability type. The most noticeable differences here are the decrease for students with learning disabilities, and the higher levels for those with an acquired brain injury.

Level of Support Required

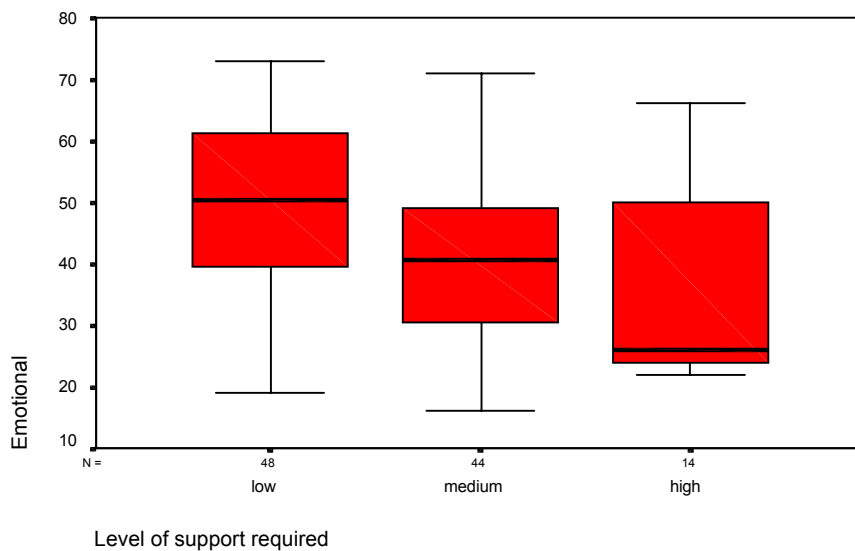


Figure 5: Boxplot - Level of Support Required vs Emotional Self-Concept

Figure 5 summarises the level of support required compared with the degree of emotional self-concept. The mean level of emotional self-concept declines with increasing level of support as self-disclosed by the students.

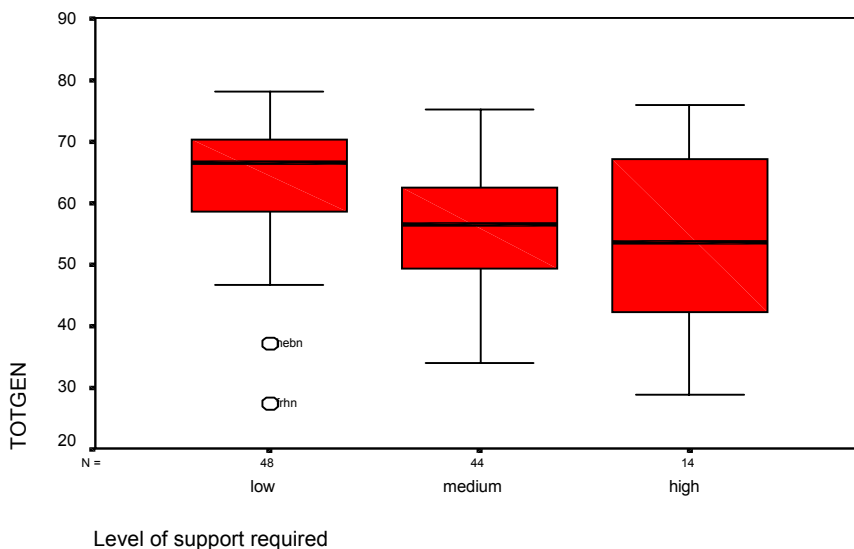


Figure 6: Boxplot Level of Support Required vs Total General Self-Concept

Figure 6 summarises the level of support required compared with the total level of self-concept. The mean level of total general self-concept declines with increasing level of support as self-disclosed by the students.

Previous Tertiary Education

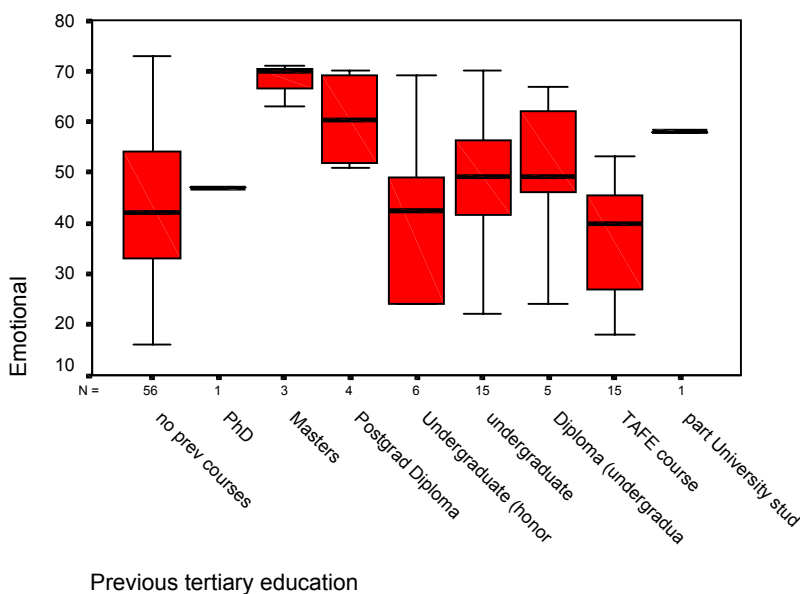
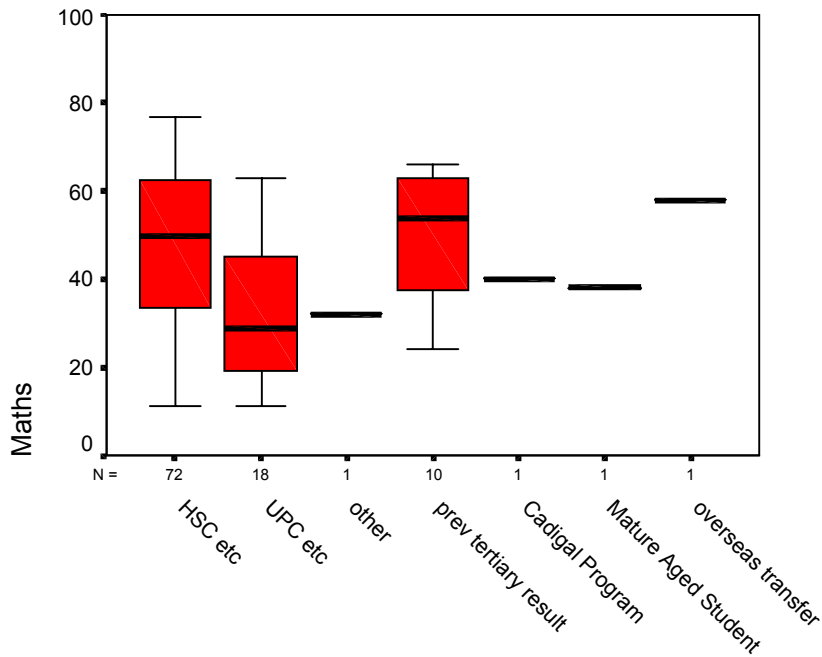


Figure 7: Boxplot - Previous Tertiary Education vs Emotional Self-Concept

Figure 7 Demonstrates the varying levels of emotional self-concept reported by students enrolled in various categories of previous tertiary education. Students having previously studied a Masters degree or a postgraduate Diploma showed more positive levels of emotional self-concept than the respondents in other categories.

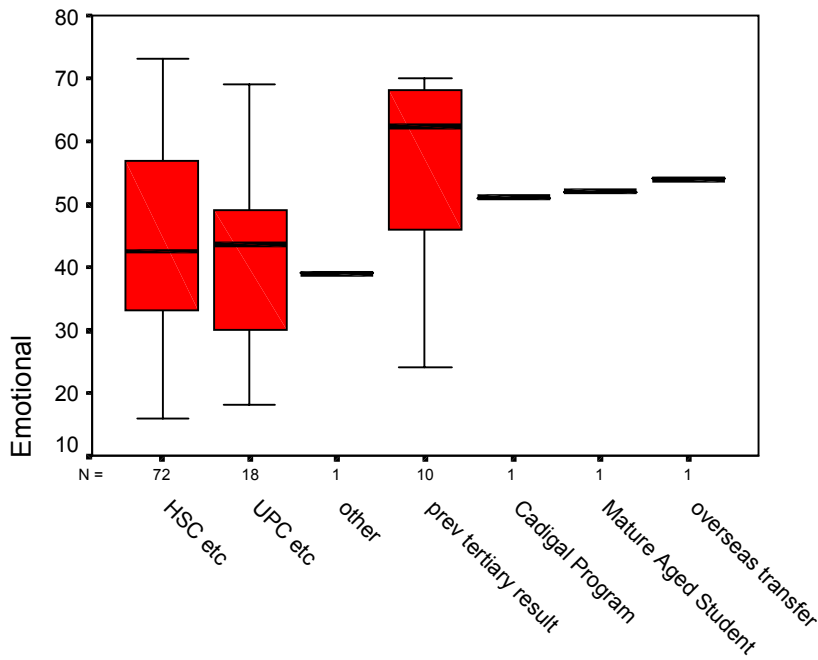
Entrance into University Study



Entrance into University study

Figure 8: Boxplot - Entrance into University study vs Maths Self-Concept

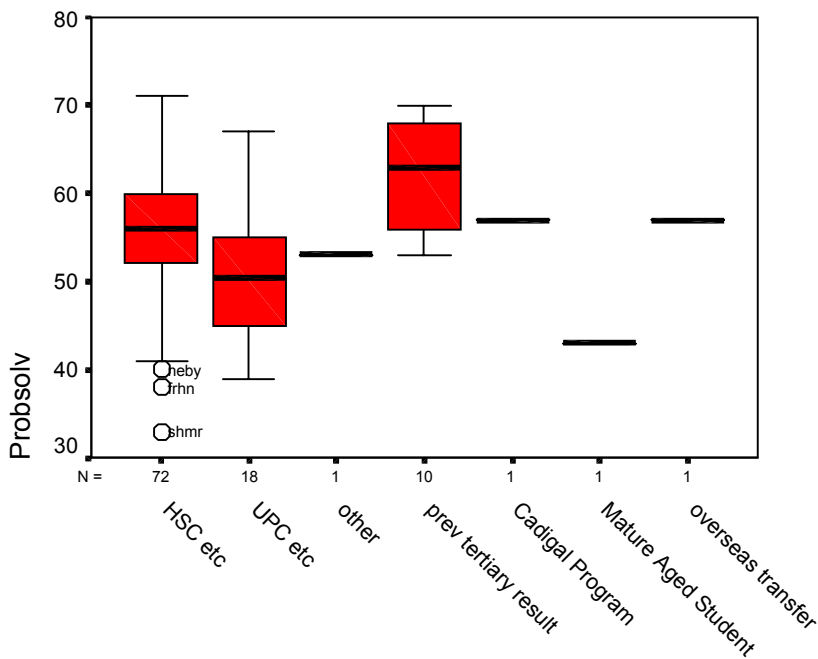
Figure 8 indicates a decrease in maths self-concept for students with disabilities entering University study through the University Preparation Certificate (UPC) (or similar programs such as Open Foundation, and TAFE courses that replace the HSC for predominantly mature aged students) as compared with those entering via the Higher School Certificate (HSC) or previous tertiary results.



Entrance into University study

Figure 9: Boxplot - Entrance into University Study vs Emotional Self-Concept

Figure 9 indicated that participants entering their current course from the results of previous tertiary study have a more positive mean level of emotional self-concept than those entering via the HSC or UPC.



Entrance into University study

Figure 10: Boxplot - Entrance into University Study vs Problem-Solving Self-Concept

Figure 10 illustrates that students entering their current tertiary course exhibited a higher level of self-concept for their ability to problem-solve than their fellow respondents entering via the HSC or the UPC.

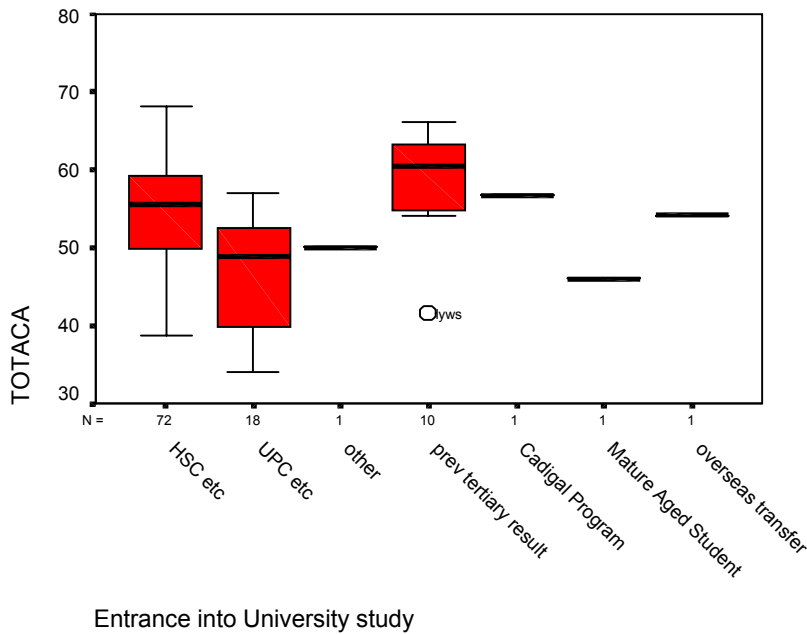


Figure 11: Boxplot - Entrance into University study vs Total Academic Self-Concept

Figure 11 indicates that the students entering their course via the UPC have a lower total academic self-concept than those completing the HSC. As for problem-solving ability, the students entering after previous tertiary education rated a more positive average result.

Current Degree Type

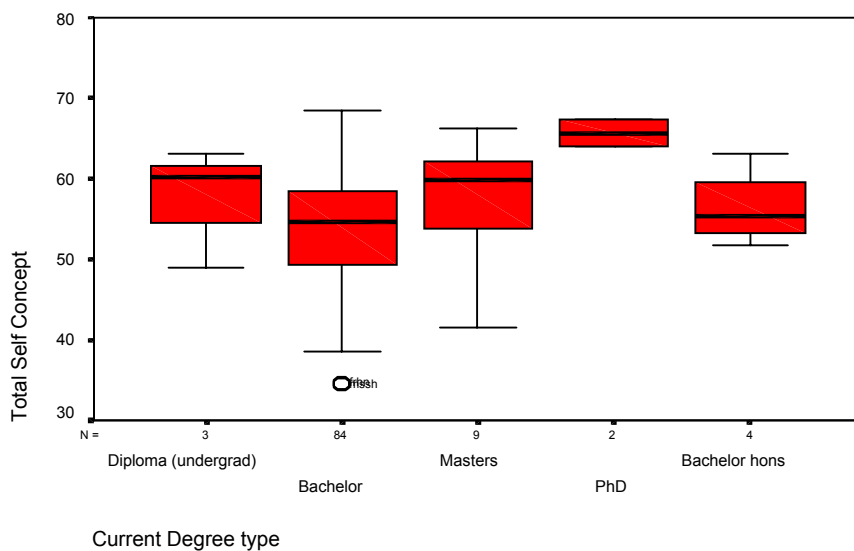


Figure 12: Boxplot - Current Degree Type vs Total Self-Concept

Figure 12 indicates that students with disabilities enrolled in a PhD course have more positive average total self-concept than those enrolled in the other four course categories.

CONCLUDING STATEMENT

The basis for this project has come from the researcher's concerns regarding the ability of students with disabilities in tertiary education to understand their level of impairment, and to interact with their peers and teaching staff. In this age of inclusive education, students are still struggling for acceptance and non-judgmental assistance. It is hoped that this study has revealed areas of improvement (particularly for students with certain types of disability, at the earlier stages of their study when they are more vulnerable to peer influence and misconceptions).

The complete results will possibly indicate a group of students who manage their situation and studies well, and their expertise can be used to establish a mentoring role for the other students. It is probable that indicators can be provided for both secondary and tertiary educators and support staff to assist students preparing for and participating in tertiary education.

The author apologises that the complete results and discussion were not available at the time of lodgment of this paper. These sections will be presented in full at the Conference or can be obtained via email to: ruthm@mail.usyd.edu.au.

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This reference list was utilised in the final presentation of the major project and forms the basis for this study.

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The University of Sydney

Welfare and Disability Services

Student Services

NSW 2006 AUSTRALIA

Ms Ruth Miller *B Sc (Ncle)*
Manager, Welfare and Disability Services

Level 7 Education Building A35
Telephone +61 2 9351 4554
Facsimile +61 2 9351 7055
email disserv@stuserv.usyd.edu.au

Date

Dear <Student Name>

Subject Information Statement

Please find attached a Consent for Release of Information Form, and a Questionnaire. This is part of a project I am conducting in order to complete my Masters degree in Education (Special Education) at Charles Sturt University. You have been sent this package as you are registered with the Disability Services Office as a student with a disability currently enrolled at the University of Sydney.

This project aims to investigate the way you think and feel about your studies at University. The questionnaire aims to measure some aspects of your self-concept against your current studies. As you can see from the questionnaire, there are three sections. The first one contains some personal information to help us develop a profile of students with disabilities. The second section has more information regarding your education. This is not meant to be intrusive, but to find out some more details of your past studies. The third section measures self-concept. This is a current 'snapshot' of thoughts and feelings about yourself.

Once you have returned your completed questionnaire, the results will be analysed to determine any significant differences across a number of areas. A part of the analysis is to compare the statistical findings against your type of disability.

The project is being conducted to (hopefully) do two things. Firstly, to find out how you cope with University as a student with a disability, and secondly, to measure types of self-concept that may indicate why some students find University study easier to manage than others. I am aiming to make this helpful not only for yourself (by providing better support groups and assistance), but for students with disabilities who enrol here and at other Universities in the future. Your participation would also help me complete this section of my studies!

Your personal details will remain strictly confidential, and your identity will not be connected with the final results of the project. Any project material with your personal details (namely the completed questionnaires) will be kept in a locked filing cabinet for 5 years before being destroyed by shredding or deleting from the computer disks. Your involvement in this project is completely voluntary, and in no way affects your access to the services offered by the Disability Services Office.

It would be appreciated if you can return your completed questionnaire by 22 September 2000. The results of the project will be published in an abbreviated format in the last Discourse newsletter of the year. The entire results will be available for students to view from 17 November 2000.

If you have a vision impairment, or experience difficulty with understanding any of this material due to its language and you would prefer an interpreter, reader, an enlarged paper, or an interview to complete the details, please contact me at the number or email address below. If you have registered with the Disability Services Office as having a vision impairment, you may find two questionnaires in this package - an A4 and a larger A3 version. Please complete the copy you find the most comfortable to read only.

If you are concerned about any aspect of this study, please do not hesitate to get in contact and discuss your concerns. You can contact me by:

Phoning 9351-4554
TTY 9351-3474
Faxing 9351-7055
Emailing ruthm@mail.usyd.edu.au

I will be offering a debriefing session for all participants on 13 October, at 2 pm in the Seminar Room, Student Services (Level 7, the Education Building, A35). Students can come to discuss any aspect of the research and all questions will be answered as fully as possible. Of course, you can contact me before then to discuss any issues of concern.

I hope that you can help with this study. Remember if you have any queries, please don't hesitate to contact me.

And don't forget the due date for your questionnaires – **22 September**. Please use the Reply Paid envelope, or drop it into the Disability Services Office in the box in Room 705.

Thank you for your time so far. The Questionnaire should only take 20 to 30 minutes for you to complete.

NOTE: The University of Sydney Human Ethics Committee and Charles Sturt University's Ethics in Human Research Committee have approved this project. If you have any complaints or reservations about the ethical conduct of this project, you may contact

Executive Officer
Ethics in Human Research Committee
The Grange
Charles Sturt University
Bathurst NSW 2795

Phone: (02) 6338 4628
Fax: (02) 6338 4194

Executive Officer
Human Ethics Committee

The University of Sydney NSW 2006

Phone: (02) 9351 4811
Fax: (02) 9351 4812

Any issues you raise will be treated in confidence and investigated fully and you will be informed of the outcome.

Sincerely yours

Ruth Miller
Manager, Welfare and Disability Services
The University of Sydney



The University of Sydney

Welfare and Disability Services

Student Services

NSW 2006 AUSTRALIA

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CONSENT TO RELEASE OF INFORMATION

SELF-CONCEPT AND STUDENTS WITH DISABILITIES IN TERTIARY EDUCATION

Your signature on this form is an acknowledgement of the following:

- The purpose of the research has been explained to me and I have read and understood the information sheet given to me.
- I understand that I am free to withdraw my participation in the research at any time and that if I do I will not be subjected to any penalty or discriminatory treatment.
- I understand that any information or personal details gathered in the course of this research about me are confidential and that neither my name nor any other identifying information will be used or published without my written permission.
- I give my permission for my type of disability (as confirmed by the medical documentation held in the Disability Services Office) and my grade point average of my current course to be compared against the results of this questionnaire.

I understand that if I have any complaints or concerns about this research I can contact:

Executive Officer
Ethics in Human Research Committee
The Grange
Charles Sturt University
Bathurst NSW 2795

Phone: (02) 6338 4628
Fax: (02) 6338 4194
Charles Sturt University's Ethics in Human Research Committee has approved this study.

Executive Officer
Human Ethics Committee

The University of Sydney NSW 2006

Phone: (02) 9351 4811
Fax: (02) 9351 4812

The University of Sydney's Human Ethics Committee has approved this study.

Print your name

Your signature

_____/_____/_____
today's date

Please make sure your consent is witnessed

Your Witnesses name

Your witnesses signature

_____/_____/_____
today's date

*Please return this form with your completed questionnaire.
Thank you for your assistance.*

REMINDER NOTICE!

REMINDER NOTICE!

JUST LETTING YOU KNOW THAT THE DUE DATE FOR THE
SELF-CONCEPT QUESTIONNAIRE IS THE 22ND OF
SEPTEMBER.

SO, IF YOU WOULD LIKE TO PARTICIPATE, PLEASE
DON'T FORGET TO FORWARD IT TO US, OR DROP IT IN
TO THE BOX IN THE DISABILITY SERVICES OFFICE.

AND A BIG THANK YOU TO ALL STUDENTS WHO HAVE SENT
THEIRS IN ALREADY. WE REALLY APPRECIATE IT!
DON'T FORGET TO COME IN AND CHECK THE RESULTS, OR
ATTEND THE DEBRIEFING SESSION ON THE 13TH OF
OCTOBER, IN THE SEMINAR ROOM, STUDENT SERVICES
FROM 2 PM.

SINCERELY YOURS

Ruth Miller

JUST LETTING YOU KNOW THAT THE DUE DATE FOR THE
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FROM 2 PM.

SINCERELY YOURS

Ruth Miller

SELF-CONCEPT QUESTIONNAIRE

Office Use

SC

Date

First Name _____

Last Name _____

Date _____ / _____ / 2000

Section 1: Personal Details

GC

AC

BA

RA

EB

DT

DE

❖ Male Female

❖ Your Date of Birth (dd/mm/yy) _____ / _____ / _____

❖ Where were you born? _____

❖ What is the suburb or town that you are currently living in?

❖ Please indicate if either of these criteria apply to your background

Aboriginal

Non-English Speaking Background

❖ What type of disability do you have?

Physical

Medical

Learning

Psychological/Psychiatric

Vision

Hearing

Acquired Brain Injury

Speech

Other _____

and is it -

Temporary

or

Permanent

How would you rate your need for support?

- 1) Low
Medium
High

DL

Section 2: Previous Education

A) Post-secondary Education

This section is about any education you have completed **before** the course you are now enrolled in at the University of Sydney.

❖ Mark the tertiary categories that best describe any courses that you have completed in the past.

- Doctorate (PhD)
Masters
Diploma (Postgraduate)
Undergraduate (Honours)
Undergraduate degree
Diploma (Undergraduate)
TAFE course

Other (please specify) _____

3^{0E}
1
2
3
4
5
6
7
8

❖ Indicate how you gained entrance to University study.

- Higher School Certificate (HSC), or equivalent Year 12 exam
University Preparation Course (UPC, TPC, Open Foundation, etc)

Other (please specify) _____

2^{0 E}
1
2
3

B) Your secondary school

❖ Where did you go to High School?

City Town Rural Home Schooling/Correspondence

Other (please specify) _____

ES

1

2

3

4

5

❖ What type of school/s did you go to?

Public School Private School Selective School Special Education School Catholic School

Other (please specify) _____

ST

1

2

3

4

5

6

❖ What services did you have at school?

Regular classes Special Classes An itinerant teacher A sign-language interpreter Any other interpreter Assistive Technology (modified computers) Carer Alternative formats to text (Braille, Audio)

Other (please specify) _____

SS

1

2

3

4

5

6

7

8

9

❖ Did you have any technological help?

- Voice Recognition
- Audio Output (screen reading)
- Scanning
- Computer Equipment (trackball, mouthstick, touchscreens)
- Screen Enlargement

Other (please specify) _____

AT
1
2
3
4
5
6

C) Your Current Tertiary Enrolment

Which Course are you currently enrolled in?

FT

CT

❖ Please mark the following criteria that apply to your enrollment:

- Full time
- Part time

- Domestic Student
- International Student
- Study Abroad Student

ET
1
2
3
4
5

❖ How many years have you been enrolled in your current course?

_____ years

CL

❖ How many years have you been actively enrolled in study at the University of Sydney?

_____ years

EL

Section 3: The Self-Description Questionnaire - III

This is a chance for you to consider how you think and feel about yourself. **This is not a test** - there are not right or wrong answers, and everyone will have different responses. The purpose of this study is to determine how people describe themselves and what characteristics are most important to how people feel about themselves.

On the following pages are a series of statements that are more or less true (or more or less false) descriptions of you. Please use the following eight-point response scale to indicate how true (or false) each item is as a description of you. Respond to the items as you now feel even if you felt differently at some other time in your life. In a few instances, an item may no longer be appropriate to you, although it was at an earlier period of your life (e.g., an item about your present relationship with your parents if they are no longer alive). In such cases, respond to the item as you would have when it was appropriate. Try to avoid leaving any items blank.

After completing all the items, you will be asked to select those that best describe important aspects - either positive or negative - of how you feel about yourself. Consider this as you are completing the survey.

1 Definitely False	2 False	3 Mostly False	4 More False than True	5 More True than False	6 Mostly True	7 True	8 Definitely True
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1 Definitely False	2 False	3 Mostly False	4 More False than True	5 More True than False	6 Mostly True	7 True	8 Definitely True
--------------------------	------------	----------------------	------------------------------	------------------------------	---------------------	-----------	-------------------------

___ 1	I find many mathematical problems interesting and challenging	___ 30	Being honest is not particularly important to me
___ 2	My parents are not very spiritual/religious people	___ 31	I have lots of friends of the opposite sex
___ 3	Overall, I have a lot of respect for myself	___ 32	I have a poor vocabulary
___ 4	I often tell small lies to avoid embarrassing situations	___ 33	I am happy most of the time
___ 5	I get a lot of attention from members of the opposite sex	___ 34	I still have many unresolved conflicts with my parents
___ 6	I have trouble expressing myself when trying to write something	___ 35	I like most academic subjects
___ 7	I am usually pretty clam and relaxed	___ 36	I wish I had more imagination and originality
___ 8	I hardly ever saw things the same way as my parents when I was growing up	___ 37	I have a good body build
___ 9	I enjoy doing work for most academic subjects	___ 38	I don't get along very well with other members of the same sex
___ 10	I am never able to think up answers to problems that haven't been already figured out	___ 39	I have good endurance and stamina in sports and physical activities
___ 11	I have a physically attractive body	___ 40	Mathematics makes me feel inadequate
___ 12	I have few friends of the same sex that I can really count on	___ 41	Spiritual/religious beliefs make my life better and make me a happier person
___ 13	I am a good athlete	___ 42	Overall, I don't have much respect for myself
___ 14	I have hesitated to take courses that involve mathematics	___ 43	I nearly always tell the truth
___ 15	I am a spiritual/religious person	___ 44	Most of my friends are more comfortable with members of the opposite sex than I am
___ 16	Overall, I lack self confidence	___ 45	I am an avid reader
___ 17	People can always rely on me	___ 46	I am anxious much of the time
___ 18	I find it difficult to meet members of the opposite sex whom I like	___ 47	My parents have usually been unhappy or disappointed with what I do and have done
___ 19	I can write effectively	___ 48	I have trouble with most academic subjects
___ 20	I worry a lot	___ 49	I enjoy working out new ways of solving problems
___ 21	I would like to bring up children of my own (if I have any) like my parents raised me	___ 50	There are lots of things about the way I look that I would like to change
___ 22	I hate studying for many academic subjects	___ 51	I make friends easily with members of the same sex
___ 23	I am good at combining ideas in ways that others have not tried	___ 52	I hate sports and physical activities
___ 24	I am ugly	___ 53	I am quite good at mathematics
___ 25	I am comfortable talking to members of the same sex	___ 54	My spiritual/religious beliefs provide the guidelines by which I conduct my life
___ 26	I am awkward and poorly coordinated at many sports and physical activities	___ 55	Overall I have a lot of self-confidence
___ 27	I have generally done better in mathematics courses than in other courses	___ 56	I sometimes take things that do not belong to me
___ 28	Spiritual/religious beliefs have little to do with my life philosophy		
___ 29	Overall, I am pretty accepting of myself		

1 Definitely False	2 False	3 Mostly False	4 More False than True	5 More True than False	6 Mostly True	7 True	8 Definitely True
--------------------------	------------	----------------------	------------------------------	------------------------------	---------------------	-----------	-------------------------

- | | | | |
|-------|---|--------|---|
| ___57 | I am comfortable talking to members of the opposite sex | ___85 | I do not spend a lot of time worrying about things |
| ___58 | I do not do well on tests that require a lot of verbal reasoning ability | ___86 | My parents treated me fairly when I was young |
| ___59 | I hardly ever feel depressed | ___87 | I learn quickly in most academic subjects |
| ___60 | My values are similar to those of my parents | ___88 | I am not very original in my ideas, thoughts, and actions |
| ___61 | I am good at most academic subjects | ___89 | I have nice facial features |
| ___62 | I am not much good at problem solving | ___90 | Not many people of the same sex like me |
| ___63 | My body weight is about right (neither too fat nor too skinny) | ___91 | I like to exercise vigorously at sports and/or physical activities |
| ___64 | Other members of the same sex find me boring | ___92 | I never do well on tests that require mathematical reasoning |
| ___65 | I have a high energy level in sports and physical activities | ___93 | I am a better person as a consequence of my spiritual/religious beliefs |
| ___66 | I have trouble understanding anything that is based upon mathematics | ___94 | Overall, I have pretty positive feelings about myself |
| ___67 | Continuous spiritual/religious growth is important to me | ___95 | I am a very honest person |
| ___68 | Overall, I have a very good self-concept | ___96 | I have had lots of feelings of inadequacy about relating to members of the opposite sex |
| ___69 | I never cheat | ___97 | I am good at expressing myself |
| ___70 | I am quite shy with members of the opposite sex | ___98 | I am often depressed |
| ___71 | Relative to most people, my verbal skills are quite good | ___99 | It has been difficult for me to talk to my parents |
| ___72 | I tend to be highly strung, tense and restless | ___100 | I hate most academic subjects |
| ___73 | My parents never had much respect for me | ___101 | I am an imaginative person |
| ___74 | I am not particularly interested in most academic subjects | ___102 | I wish that I were physically more attractive |
| ___75 | I have a lot of intellectual curiosity | ___103 | I am popular with other members of the same sex |
| ___76 | I dislike the way I look | ___104 | I am poor at most sports and physical activities |
| ___77 | I share a lot of activities with members of the same sex | ___105 | At school, my friends always came to me for help in mathematics |
| ___78 | I am not very good at activities that require physical ability and coordination | ___106 | I am basically an atheist, and believe that there is no being higher than man |
| ___79 | I have always done well in mathematics classes | ___107 | Overall, I have a very poor self-concept |
| ___80 | I rarely if ever spend time in spiritual meditation or religious prayer | ___108 | I would feel OK about cheating on a test as long as I did not get caught |
| ___81 | Overall, nothing I do is very important | ___109 | I am comfortable being affectionate with members of the opposite sex |
| ___82 | Being dishonest is often the lesser of two evils | ___110 | In school I had more trouble learning to read than most other students |
| ___83 | I make friends easily with members of the opposite sex | ___111 | I am inclined towards being an optimist |
| ___84 | I often have to read things several times before I understand them | ___112 | My parents understand me |

1 Definitely False	2 False	3 Mostly False	4 More False than True	5 More True than False	6 Mostly True	7 True	8 Definitely True
--------------------------	------------	----------------------	------------------------------	------------------------------	---------------------	-----------	-------------------------

- | | | | |
|---------|--|---------|--|
| ___ 113 | I get good marks in most academic subjects | ___ 125 | I like my parents |
| ___ 114 | I would have no interest in being an inventor | ___ 126 | I could never achieve academic honours, even if I worked harder |
| ___ 115 | Most of my friends are better looking than I am | ___ 127 | I can often see better ways of doing routine tasks |
| ___ 116 | Most people have more friends of the same sex than I do | ___ 128 | I am good looking |
| ___ 117 | I enjoy sports and physical activities | ___ 129 | I have lots of friends of the same sex |
| ___ 118 | I have never been very excited about mathematics | ___ 130 | I am a sedentary type who avoids strenuous activity |
| ___ 119 | I believe that there will be some form of continuation of my spirit or soul after my death | ___ 131 | Overall, I do lots of things that are important |
| ___ 120 | Overall, I have pretty negative feelings about myself | ___ 132 | I am not a very reliable person |
| ___ 121 | I value integrity above all other virtues | ___ 133 | Spiritual/religious beliefs have little to do with the type of person I want to be |
| ___ 122 | I never seem to have much in common with members of the opposite sex | ___ 134 | I have never stolen anything of consequence |
| ___ 123 | I have good reading comprehension | ___ 135 | Overall, I am not very accepting of myself |
| ___ 124 | I tend to be a very nervous person | ___ 136 | Few, if any of my friends are very spiritual or religious. |

Different characteristics, both positive and negative, carry in their importance in determining how you feel about yourself. For example, the statement "I am musically talented" may be very inaccurate as a description of you, but it may also be very unimportant about how you feel about yourself. Below are statements about different characteristics. For each statement please judge: 1) how **ACCURATE** the statement is as a description of you: and 2) how **IMPORTANT** the characteristic is in determining how you feel (either positive or negative) about yourself. Please use the following response scale:

1	2	3	4	5	6	7	8	9
Very Inaccurate		Inaccurate		Moderate or		Accurate		Very Accurate
Very Unimportant		Unimportant		Average		Important		Very Important

ACCURACY

How accurate is this statement about you?

- | | |
|-------|---|
| _____ | I am good at sports and physical activities |
| _____ | I am physically attractive/good looking |
| _____ | I have good interactions/relationships with members of the opposite sex |
| _____ | I have good interactions/relationships with members of the same sex |
| _____ | I have good interactions/relationships my parents |
| _____ | I am an emotionally stable person |
| _____ | I am a spiritual/religious person |
| _____ | I am an honest/reliable/trustworthy person |
| _____ | I have good verbal skills/reasoning ability |
| _____ | I have good mathematical skills/reasoning ability |
| _____ | I am a good student in most academic subject areas |
| _____ | I am good at problem solving/creative thinking |

IMPORTANT:

How important is the characteristic to you?

- | |
|-------|
| _____ |
| _____ |
| _____ |
| _____ |
| _____ |
| _____ |
| _____ |
| _____ |
| _____ |
| _____ |
| _____ |
| _____ |

Variable	Category	Frequency	Percent
Gender	Male	26	24.5
	Female	80	75.5
Grade Point Average	0-19.99	1	0.9
	30.00-34.99	1	0.9
	40.00-44.99	2	1.9
	45.00-49.99	4	3.8
	50.00-54.99	4	3.8
	55.00-59.99	16	15.1
	60.00-64.99	16	15.1
	65.00-69.99	20	20.8
	70.00-74.99	22	20.8
	75.00-79.99	6	5.7
	80.00-84.99	5	4.7
	85.00-89.99	1	0.9
	GPA not available	8	7.5
Age Group	18-20	24	22.6
	21-24	29	27.4
	25-28	11	10.4
	29-32	10	9.4
	33-36	8	7.5
	37-40	3	2.8
	41-44	11	10.4
	45-48	3	2.8
	49-52	2	1.9
	53-56	1	0.9
	57-60	1	0.9
	65-68	1	0.9
	69-72	2	1.9
Background categories	Aboriginal	4	3.8
	NESB	19	17.9
	Neither	83	78.3
Disability Type	Physical	38	35.8
	Medical	21	19.8
	Learning	14	13.2

Disability Type <i>cont'd</i>	Psychological	18	17.0
	Vision	7	6.6
	Hearing	5	4.7
	Acquired Brain Injury (ABI)	2	1.9
Nature of Disability	Temporary	16	15.1
	Permanent	89	84.0
Level of Support Required	Low	48	45.3
	Medium	44	41.5
	High	14	13.2
Previous Tertiary Education	No Previous Courses	57	53.8
	Partial Uni Study	1	0.9
	TAFE course	15	14.2
	Diploma (undergrad)	5	4.7
	Undergraduate degree	15	14.2
	Undergraduate degree (honors)	6	5.7
	Postgraduate Diploma	4	3.8
	Masters	3	2.8
Entrance into University	Higher School Certificate	73	68.9
	University Preparation Cert.	18	17.0
	Previous Tertiary results	10	9.4
	Other	4	3.8
High School Type	Public	52	49.1
	Private	29	27.4
	Selective	6	5.7
	Catholic	15	14.2
	Other	3	2.8
Faculty of Enrollment	Architecture	1	0.9
	Arts	42	39.6
	Dentistry	1	0.9
	Economics and Business	10	9.4
	Education	8	7.5
	Engineering	2	1.9
	Law	3	2.8
	Medicine	4	3.8
	Nursing	5	4.7

Faculty of Enrollment <i>cont'd</i>	Science	11	10.4
	Social Work	6	5.7
	Veterinary Science	6	5.7
	Visual Arts	1	1.9
Current Degree Type	Diploma (undergraduate)	3	2.8
	Undergraduate Degree	85	80.2
	Undergraduate Degree (honors)	4	3.8
	Masters	10	9.4
	PhD	2	1.9
Level of Enrollment	Full-time	73	68.9
	Part-time	33	31.1
Type of Enrollment	Domestic	105	99.1
	International	1	0.9
Length of Current Course Enrollment	1 year	33	31.1
	2 years	34	32.1
	3 years	17	16.0
	4 years	14	13.2
	5 years	7	6.6
	9 years	1	0.9
Length of total Enrollment at Usyd	1 year	31	29.2
	2 years	25	23.6
	3 years	21	19.8
	4 years	15	14.2
	5 years	7	6.6
	6 years	1	0.9
	7 years	1	0.9
	8 years	1	0.9
	9 years	1	0.9
	10 years	2	1.9