

**Effect of Perceived Academic Pressure on Depression, Anxiety, Stress and Self-efficacy  
in Leaving Certificate Students.**

**Niamh Katherine Colgan**

**10030427**

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**Supervisor: Dr. Rosie Reid.**

**Programme Leader: Dr. Rosie Reid.**

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**Department of Psychology**

**Dublin Business School**

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## **Abstract**

The aim of this study was to explore the negative effects that the perceived academic pressure of the Leaving Certificate can have on the mental wellbeing of students. This research focused on both 5th and 6th year, male and female students and aimed to establish the relationship between perceived academic pressure and levels of depression anxiety stress and self-efficacy.

A total of 210 participants were recruited from two separate schools and given a questionnaire booklet each to complete, containing three self-reflective questionnaires that addressed the participants current emotional states.

Analysis of the data using SPSS showed a relationship between perceived academic pressure and depression, anxiety, stress and self-efficacy. It also highlighted a difference across gender and year of study for levels of perceived academic pressure.

The implications of the findings of this research include the need for an intervention within the Leaving Certificate programme at reducing the levels of perceived academic pressure of students as we can see it is negatively affecting the students' mental well being.

Perceived academic pressure is considered the amount of pressure a student perceives themselves to be under due to their academic environmental factors. Academic stressors include the student's perception of the extensive knowledge base required and the perception of an inadequate time to develop it (Carveth, Geese & Moss, 1996). Murphy and Archer (1996) believed that when stress is perceived negatively or becomes excessive, students experience physical and psychological impairment.

In Ireland over recent years many issues have been brought to light regarding the current second level education system and in particular the Leaving Certificate. The Leaving Certificate Examinations are the final state examinations in the Irish school system for which the final two years of school (5th and 6th) are dedicated to the preparation of. Students must study a minimum of six subjects, requiring a large amount of work and dedication. The Leaving Certificate is well known for placing unnecessary academic pressure on students which can have negative effects on their wellbeing, many of whom are adolescents and as we know the teenage years are some of the most testing and challenging years, excluding the factor of academic stress. With over 50'000 students sitting the Leaving Certificate every June, this excessive academic pressure is a certain cause for concern.

Depression and anxiety are negative symptoms experienced by people of all ages, including adolescents. Anxiety disorders are the most frequently occurring category of mental disorders in the general population (American Psychiatric Association, 1994). Mood disorders such as depression are proven to be more prevalent among younger adults than older adults (Eaton et al, 1989), meaning that typical secondary school Leaving Certificate students (aged 17-19) are already more susceptible to suffer from depression than their older counterparts. A study by Fresco, Coles,

Heimberg, Liebowitz, Hami, Stein and Goetz (2001) showed the presence of a link between social anxiety disorders and depression in adolescents and young adults.

Stress is a natural emotion that can be beneficial for increasing motivation and drive but can also prove detrimental to one's health at times and can be a cause of difficulty in the lives of many who suffer with it in excess. People who suffer from stress are more likely to experience depression and other health problems (Cohen et al, 1991). Stress can be defined as a transaction between the individual and the environment (Lazarus, 1981, 1991, 1993). Humans, as we know are directly affected by their environment and in many cases, a stressful environment can lead to one developing stressful emotions i.e. a stressful school environment can lead to students feeling stressed. Lazarus and Cohen (1977) believed stressors to be the demands made by the internal or external environment that upset a balance, therefore affecting the physical and psychological wellbeing which in turn requires action to reinstate this balance.

Self-efficacy is defined as an individual's belief in his or her capacity to execute behaviours necessary to produce specific performance attainments (Bandura, 1977, 1986, 1997). Previous research conducted by Muris (2002) supports the idea that there is a link between self-efficacy levels and levels of anxiety and depression in adolescents.

## **Anxiety**

Anxiety disorders are characterised by intense feelings of fear and anxiety that are not appropriate for the circumstances. They are seen as an important cause of functional impairment. Sufferers of anxiety disorders can experience physical symptoms due to the hyperactivity of the sympathetic nervous system. The DSM theorises there to be six classifications of anxiety disorders including Generalised anxiety disorder (G.A.D), Panic disorder, Specific phobias, Obsessive-compulsive disorder, Social phobia and Post traumatic stress disorder. According to Gross and Hen (2004) all cases of anxiety disorders will affect more than 20 percent of the U.S population at some point in their lifetime. With anxiety disorders increasing in prevalence over recent years, many researchers such as Spielberger (2010) and Beck et al., (1988) have conducted work on the development of anxiety as a disorder as well as its measurement.

The cause of generalised anxiety disorder is difficult to determine as it is a very individual disorder that is generally related to intense feeling of stress. In people diagnosed with G.A.D, fear and apprehension are pervasive, persistent and uncontrollable, causing them to worry constantly, feel generally on edge and frequently tired. According to Tyrer and Baldwin (2006) it is a persistent and common disorder that affects twice as many women as it does, men. Worries typically seen in G.A.D patients are often more future orientated than worries of other anxiety disorders (Dugas, Gagnon, Ladouceur & Freeston, 1998).

Academic anxiety is not an area that has been explored at a great length, however there have been many researchers that have explored the relationship between anxiety and academic performance. It has been shown that students with a high level of anxiety tend to obtain lower grades in their end of semester exams. (Hamzah, 2007). Research has shown a relationship between

anxiety and low academic performance among children and young adolescents (Mazzone, Ducci, Scoto, Passantini, D'Arrigo & Vitiello, 2007). A study conducted by Martirosian and Hartoonian (2015) involving second year engineering students showed that there was a statistically significant relationship between high levels of anxiety and academic performance.

The current study can add greatly to the existing literature as there is very little research existing linking general anxiety levels to academic pressure. There is however a large amount of research involving school children and the anxiety that attending school can induce in children. One study found that 75 percent of children who have school refusal caused by separation anxiety, have mothers who also avoided school in childhood (Last & Strauss, 1990). It is believed that social phobia can also have an influence on school-induced anxiety.

According to new research published by the American Psychological Association (2012) "Children may perform better in school and feel more confident about themselves if they are told failure is a normal part of learning, rather than being pressured to succeed at all costs", Too much emphasis is placed on academic performance for children and adolescents, in particular. This leads to students experiencing unnecessary academic pressure which has been shown to increase levels of anxiety in several recent studies including Quach, Epstein, Riley, Falconier and Fang (2015), which also explored the link between academic pressure and depression.

A study conducted by Autin and Croziet (2012) looked at how decreasing the amount of academic pressure, helps to assist the achievement of children. The study conducted three separate experiments to obtain the results. The first experiment used a sample of 111 sixth grade students that were presented with a close to impossible anagram problem to solve. The second experiment followed a similar procedure with 131 students and the final experiment involved 68 student who were tested on their reading comprehension. The results of the study showed that students'

improvement on their test scores was due to increased confidence levels and the reduction in their fear of failure. On the completion of the study the researchers stated “Our research suggests that students will benefit from education that gives them room to struggle with difficulty”. Although this research was successful and beneficial by looking not only at academic pressure but also at the working memory of the students, a limitation can be seen as the children anxiety levels were never taken into consideration. The study showed that there is a positive relationship between high levels of confidence and academic success. It proved that students who were under less academic pressure, performed better than those who were under high levels of academic pressure. From this study we can see that higher levels of academic pressure can have negative effects on students in a performance sense but what the current research aims to discover is if academic pressure correlates with anxiety levels. The current study aims to add to the literature of this kind by discovering what the connection between academic pressure and anxiety, among other factors is.

## **Depression**

The World Health Organisation (2012) defines depression as a “mental disorder characterised by sadness, loss of interest or pleasure, decreased energy, feelings of guilt or low self esteem, disturbed sleep or appetite and poor concentration”. Depression is one of the most prevalent mental health disorders in today’s society. Currently there are thought to be 350 million people worldwide suffering with depression. An estimated 800,000 people die each year as a result of suicide (WHO, 2015). The size of these figures is not only staggering but truly concerning. At any given moment 2 to 3 percent of males and 5 to 9 percent of females are suffering from major depression. The lifetime risk of major depressive disorders is 5 to 12 percent in males and 10 to 26 percent in females (APA, 1994). Major depression is seen as a progressive disorder with episodes

increasing in severity gradually. Approximately 75 percent of patients who experience a major depressive episode will have a recurrence within five years (Maj, Veltro, Pirozzi, Lobracc, and Magliano, 1992).

Depression is a modern epidemic that has a negative effect on so many lives but with the correct knowledge and prevention, it can be helped. Over recent years, depression has become increasingly prevalent among adolescents for many reasons. One in four young people are living with a mental disorder and 9 percent of young people aged 16 to 24 experience high to very high levels of psychological distress (Australian Institute of Health and Welfare, 2007). Young people aged 18 to 24 have the highest prevalence of mental disorders of any age group and youth suicide is the leading cause of death among young people aged 15 to 24 (ABS, 2012).

There has been much research conducted previously in the field of depression in relation to academic pressure. Researchers such as Hilsman and Garber (1995) have looked at levels of depression in school children due to academic stressors, finding that students who reported lack of academic control and competence, exhibited higher levels of distress and depressive symptoms. Research relating to the current study includes that of Bandura et al (1999) who showed the link between self-efficacy and depression among a sample of children. As has been shown, the existing research of academic related depression, deals primarily with either younger children or college students. There is a lack of research involving adolescents and depression despite the fact that depression and academic stress are so prevalent among adolescents.

There are many theories of depression, of which are the basis of much of the research that has been conducted. In Sigmund Freud's works "Mourning and Melancholia (1917/ 1950) he discussed his belief that the potential for depression is created early in one's childhood as a result of the child becoming stuck in the oral phase of psychosexual development. He also theorised that bereavement also has a part to play in the development of depression later in life. He believed that

the child incorporates the lost person and identifies with them in an attempt to reverse their loss. The child then becomes the source of their own hatred due to feeling of desertion. This causes the child to develop an on going process of self abuse. Even though theories of depression have changed vastly since Freud developed his theory, his work was supported by researchers such as Neitzel and Harris (1990) who showed that people who suffer with depression tend to be prone to suffering with depression following rejection.

More recent theories of depression include cognitive theories including Beck's Theory of Depression (1967, 1987) that provides the view point that depressed individuals feel as they do because their thinking is biased towards negative interpretations and that in childhood or adolescents, depressed people develop a negative schema of a tendency to have a negative outlook on the world due to many hindering factors including bereavement or tragedies. Beck believed that if one acquires a negative schema early in life, this can lead to depression before adulthood. This can help explain the frequent occurrence of childhood and adolescents depression.

## **Stress**

Stress is seen as a group of environmental conditions that trigger psychopathology. It arises when individuals perceive that they cannot adequately cope with the demands being made on them or with threats to their well-being (Lazarus, 1996). The physician Hans Selye developed the General Adaptation Syndrome (1939) as a way to describe the biological response to sustained physical stress. This model explains the physical effects on the body that stress can have, including the activation of the Autonomic Nervous System as well as the inhibited functioning of the body's organs due to resistance and exhaustion. Although this concept is still studied today, many researchers have developed theories on stress as a stimulus, referring to it as a stressor instead of the

pre existing view of Selye that stress was a response-based construct. The definition of stress is however ever-changing and adaptive. Whitman (1985) believes that stress is difficult to define due to its variable effects on individuals. Some people even believe that it is not possible to define objectively what events or situations qualify as psychological stressors (Lazarus 1966). Richard Lazarus believed that the way a person's life events are evaluated will determine whether or not they are perceived as stress inducing events. For example, an exam can be seen as a challenge to some but can become an extremely stressful situation for others.

It has been shown by several studies over the years that there is a strong correlation between excessive stress and poor health (Kirschbaum, Klauer, Filipp and Hellhammer, 1995; Cohen & Herbert, 1996). By being educated on the triggers of stress and learning adequate coping mechanisms, one can hope that stress will begin to become less of a health risk especially for adolescents. Stress has even been linked to all physical causes of death: heart disease, cancer, stroke (Cohen, Janicki-Deverts, & Miller, 2007).

This study can add to the existing knowledge as there has been very little research involving secondary school aged students and stress. Some research includes a study conducted by Torsheim and Wold (2001) that looked at the negative effects of stress, showing the link between school-related stress as well as social support from teachers and classmates, and health complaints in early adolescents. It involved Norwegian students, finding that students with high levels of school-related stress had a higher chance of suffering from ailments such as headaches, abdominal pain, backache and dizziness. A similar study examined the relationship between school related stress and psychosomatic symptoms in young teenagers (Natvig, Albreksten, Anderssen, Ovarnstrøm, 1999). It showed that social support from teachers decreased the risk of school-induced stress among girls, whereas social support from other pupils reduced the risk among both boys and girls.

The majority of existing research has been conducted with University students. Murphy and Archer (1996) conducted a study that looked at a longitudinal comparison of stressors on the college campus, as we know that stressors can vary greatly among individuals. University students are susceptible to stress from several different factors including academic, as well as social and personal. There are several studies that have aimed to explain the effect of stress on academic performance including (Robotham and Julian, 2006) that analysed previous literature on the subject, concluding that there is a need for more longitudinal research to be conducted to analyse students' stress throughout their University years. Although the current study does not involve university students, it does involve students of two separate year groups and aims to examine their differences in stress. Stress has previously been strongly linked with the development of major mental health problems such as depression and anxiety, this research aims to add to this knowledge base. A study by Jones and R.U.S.S.E.L.L. (1993) found that a substantial proportion of the stress that affects adolescents is likely to originate from academic activity. This is the consequence of the considerable proportion of students' lives spent within the school environment.

### **Self-efficacy**

Self-efficacy is a concept defined by Albert Bandura as an individual's belief in his or her capacity to execute behaviours necessary to produce specific performance attainments. It is described as a person's conviction that they can perform actions necessary to produce the desired outcome. For example in an academic sense, a student will not start to study for an exam unless they believe that the process of starting to study is likely to lead to the desired result of receiving a good grade in that exam and also that they have the ability to do so.

Bandura's original theory involving self-efficacy was developed in 1977 and argued that all psychological procedures alter the level and strength of self-efficacy. Bandura, who was a leading advocate of changing behaviour through cognitive means, believed that changing a behaviour through behavioural techniques is the most powerful way to enhance a person's self-efficacy. Several advancements were made in self-efficacy through his later theories including the theory of Self-efficacy Mechanisms in Human Agency (1982) in which the importance of the self-efficacy mechanism in human agency is addressed by analysing the influence of thoughts, patterns, actions and emotional arousal. Human agency is essentially a human beings ability to make decisions. The study showed that the higher the level of induced self-efficacy, the higher the performance accomplishments and the lower the emotional arousal. Bandura argues that self-efficacy expectancies are generally the most important determinants of successful task performance.

Although Bandura's work was beneficial in establishing what self-efficacy is and how it plays a role in personality, the research that followed has not made much advancement in relation to academia. A study by Zimmerman (2000) looked at the relationship between self-efficacy and motivation to learn. Although this was successful in relating self-efficacy to students' academic achievement, the variables of stress or pressure were never taken into account as influencing factors of students achievement.

Several studies have been conducted over recent years in regard to self-efficacy levels of students in American or Canadian schools including the work of Bouffard-Bouchard, Parent and Larivee (1991) and Pajares and Schunk (2001). As we know there is a vast difference between the education system in North America and Europe but there has been very little research conducted involving an Irish or even European sample of students. A European study conducted by Caprara, Barbaranelli, Steca and Malone (2006) looked at teachers self-efficacy levels and how it correlated to their job satisfaction as well as students' academic achievement. From reviewing previous

research, it is obvious that there is currently a lack in research involving student self-efficacy levels and academic pressure.

Bandura (1977) believed that “people’s level of motivation, affective states, and actions are based more on what they believe than on what is objectively true” (p. 2). This belief can provide beneficial knowledge to the education system as we know that people who have low levels of self-efficacy will have lower confidence levels and therefore will be less likely to succeed. This current research aims to find a link between high levels of academic pressure and low levels of self-efficacy, proving that people who are under high levels of academic pressure will have less self-belief and self-efficacy as a result.

## **Gender Differences**

Much research has examined gender differences in academic performance (Wach, Spengler, Gottschling & Spinath, 2015; Weis, Heikamp & Trommsdorff, 2013). The current study aims to examine the gender difference among scores of perceived academic pressure. Previous research has suggested that boys and girls especially during adolescence, are affected by stress and pressure differently. A study conducted by Morris, Finkelstein and Fisher (1976) which used the Dunn’s School Anxiety Questionnaire on school children found that girls scored higher than boys on emotionality and test anxiety. When looking at academic stress among medical students it was found that female students suffered from greater stress than their male counterparts. (Backovic, Zivojinovic, Maksimovic & Maksimovic, 2012). There is a gap in the current literature regarding perceived academic pressure gender differences among adolescents. This research can add to the current knowledge as it will focus specifically on Leaving Certificate students aged between

seventeen and eighteen and the differences between male and females on their levels of perceived academic pressure.

### **Current Study**

The aim of this study is to determine the effect of the Leaving Certificate on students and to examine the relationship between students' levels of perceived academic pressure and depression, anxiety, stress and self-efficacy levels. Will there be a relationship between perceived academic pressure and depression, anxiety, stress and self-efficacy? Will the levels of perceived academic pressure be higher among sixth years than fifth years or will there be any difference between the levels of perceived academic pressure of students in their penultimate year and students in their final year? Will there be a difference in levels of perceived academic pressure between boys and girls?

As this study is one of a correlational design there will be one predictor variable and a number of criterion variables. The predictor variable is "perceived academic pressure" while the criterion variables are depression, anxiety, stress, self efficacy, gender and year of study in secondary school. The current study will use several different measures to test said variables. The Depression Anxiety Stress Scale (1995) will be used to measure the participants levels of depression, anxiety and stress. The Educational Stress Scale for Adolescents (2011) will also be used to measure students stress levels. Self-efficacy levels will be measured with use of the General Self Efficacy Scale (1995) and finally a five point Likert scale will be produced to measure the students levels of perceived academic pressure.

There has been no previous research conducted involving all of the mentioned variables which makes this study unique. As we can see, the areas of depression, anxiety, stress and self-

efficacy are all widely researched areas in Psychology today, however academic pressure is not a topic that has been researched at great length to date. Existing research has looked at academic pressure among college students, specifically in America but there has been little or no research conducted regarding the impact of academic pressure on second level students.

The findings from this study could prove very beneficial to the educational world and could have a strong impact on the school system. If it is shown that perceived academic pressure causes students to experience high levels of depression, stress and anxiety and exhibit low levels of self-efficacy, then something must be done about this. The idea that some students experience feelings of depression, stress and anxiety due to pressure they feel from their school life, is very upsetting. The school years are meant to be the best years of a child's life and should be filled with happiness and knowledge, not stress and anxiety. Hopefully measures can be taken by schools to implement workshops or information programmes to better educate their students on the importance of good mental health and how detrimental neglecting your mental health can be. It would be beneficial if the results of this study could encourage schools to take action on this much neglected topic of students mental health, perhaps the Leaving Certificate would be seen as less of a negative if the amount of pressure students were placed on would decrease.

To summarise, the aim of the current study is to establish if there is a relationship between levels of perceived academic pressure and levels of depression, anxiety, stress and self-efficacy in current fifth and sixth year Leaving Certificate students. Posing the question; Does the pressure of the Leaving Certificate have a negative effect on students mental health? The study will be conducted across both genders to avoid bias and will also look at the difference in levels of perceived academic pressure between fifth years and sixth years as well as between male and female participants. If a relationship is found between perceived academic pressure and the criterion variables then the question that arises is "What is the strength of this relationship?" and "How can

this knowledge be put to adequate use?”. Knowledge such as this could be of great benefit to educators as it could assist in the reduction of factors that cause academic pressure in students, therefore hopefully leading to there being a reduction in levels of depression, anxiety and stress and an increase in self-efficacy levels. This in turn should create a more positive learning experience for Leaving Certificate students while increasing awareness of the effect of excess academic pressure on the mental health of adolescents.

## **Hypotheses**

The first hypothesis (H1) is that there will be a statistically significant relationship between perceived academic pressure and levels of depression in fifth and sixth year students.

The second hypothesis (H2) is that there will be a statistically significant relationship between perceived academic pressure and levels of anxiety in fifth and sixth year students.

The third hypothesis (H3) is that there will be a statistically significant relationship between perceived academic pressure and levels of stress in fifth and sixth year students.

The fourth hypothesis (H4) is that there will be a statistically significant relationship between perceived academic pressure and levels of self efficacy in fifth and sixth year students.

The fifth hypothesis (H5) is that there will be a significant difference in levels of perceived academic pressure between students in fifth year and students in sixth year.

The sixth hypothesis (H6) is that there will be a significant difference in levels of perceived academic pressure between male and female students.

## Methods

### Participants

Participants were selected by means of non probability purposive sampling. The target population was 5th and 6th year secondary school Leaving Certificate students. Participants were recruited from Holy Faith Secondary School, Clontarf and St. Aidans CBS, Whitehall and the two schools were selected by convenience sampling. There were 131 participants from Holy Faith and 79 participants from St. Aidans all of which were full time students,

The groups were defined by gender as both schools were single sex schools. Two same-sex schools were chosen instead of one mixed-sex school in order to avoid skewness in the distribution of gender.

The principals for both schools gave consent on the students behalf as the age range of the participants was 16-18 years so many of the students that participated were minors. After the principals had been briefed on the contents of the study and what the research entailed, they discussed the study with all 5th and 6th year students and those who were interested chose to take part. There was no incentive provided to the participants, they were not paid for their time and they were ensured that their participation was entirely voluntary. No students were forced to take the questionnaire.

This study was given approval by the Dublin Business School Research Ethics Committee and all ethical principles in the code of professional ethics were adhered to. No data was disregarded or excluded.

## **Design**

The design used in this research was a correlational design involving a quantitative self-report questionnaire that was administered to fifth and sixth year Leaving Certificate students, both male and female, with the aim of establishing the effect of perceived academic pressure on the levels of depression, anxiety, stress and self efficacy of the students. The difference between the fifth and sixth years as well as the difference between genders was examined. The Predictor variable for this study was perceived academic pressure and the criterion variables were depression, anxiety, stress, self efficacy, year of study in secondary school and gender.

## **Procedure**

Once permission to the schools had been granted, dates were finalised for the data collection for both schools. The questionnaires were administered to the girls school on one day and to the boys school, another.

The researcher gave verbal instructions to the participants regarding the study before the questionnaire booklets were handed out, explaining that the study was based on academic pressure and its effects. Participants were told that the booklet included a series of short questionnaires with guided instructions that would require them to answer in a self reflective manner.

It was highlighted that the anonymity and privacy of all participants would be kept throughout the entire study and that due to this, there was no option to withdraw from participation once the questionnaires had been completed. Participants were ensured that the questionnaires

would only take a maximum of ten minutes to complete and that if they had any questions, they could ask freely.

The booklets were handed out to the participants which they were given ten minutes to complete. A cover letter (see appendix 1) was included in the questionnaire booklet that introduced the researcher and the nature of the study. The final page of the booklet thanked the students for their participation (see appendix 2). It also included the researcher and their supervisors contact details as well as the contact details of some helplines that were relevant to the nature of the study. Participants were told they would detach and retain this final page for their own knowledge if they wished to do so.

Once all participants had completed the questionnaires the booklets were immediately collected and securely stored before the data was entered into SPSS

## **Materials**

The questionnaire booklet that was provided to the participants consisted a small section that measured demographics i.e. Gender and year of study, followed by a the first survey which was a short novel five-point likert scale that was developed by the researcher to measure the students levels of perceived academic pressure (see appendix 3). Students were asked to rate the amount of academic pressure that they were experiencing at the time. They were given five options and told to tick the box that most applied to them (none, low, medium, high, and extremely high).

The DASS21 (Depression, Anxiety, Stress Scale) was used for the following 21 items (Lovibond & Lovibond, 1995) (see appendix 4). The DASS is a self report questionnaire that is designed to assess the severity of the symptoms of depression, anxiety and stress. It is the shortened version of the original DASS42 and contains 21 statements ranging from “I found it hard to wind

down” to “I felt that life was meaningless”. Participants were required to state to which degree each statement applied to them, on a scale from 0 (did not apply to me at all) to 3 (Applied to me very much, or most of the time). Each statement represents either depression, anxiety or stress i.e. “I found it hard to wind down” represents stress. The questionnaire is scored by totalling scores from each of the depression items, the anxiety items and the stress items. Scores are then further divided into five categories (normal, mild, moderate, severe and extremely severe). For example, a score of fourteen or higher on depression is classified as extremely severe however a score of ten or more on anxiety is also extremely severe. The reliability of the DASS 21 has been tested using Cronbach’s Alpha which produced scores of 0.96, 0.89 and 0.93 for depression, anxiety and stress respectively. (Brown, Chorpita, Korotitsch & Barlow, 1997).

The General Self-efficacy Scale (Schwarzer & Jersusalem, 1995) is a psychometric scale that was designed to assess a persons self belief and ability to cope with difficulties of life (see appendix 5). It is a ten item self-reflective scale with four responses for each item ranging from “not at all” to “exactly true. Statements are short and easy to understand i.e. “I can solve most problems if I invest the necessary effort”. The GSE was originally developed in 1981 and has been widely used throughout 32 different countries as a reliable source since its final development in 1995. The questionnaire is scored by totalling all scores for each item. There are no cut off points for categorising the levels of self-efficacy form this questionnaire however, higher scores indicate higher self-efficacy with the lowest score being 10 and the highest being 40. The internal reliability of the GSE has been tested using Cronbach’s Alpha, showing a range between 0.76 and 0.90. The validity of the GSE has also been tested and has been shown to correlate positively with emotion, optimism and work satisfaction. However, correlating negatively with depression, stress, health complaints and anxiety.

The Educational Stress Scale (ESS) is a scale developed to measure educational stress levels in adolescents (Sun, Dunne, Hou and Xu, 2011). This questionnaire contains 16 sentence-long items varying from “I feel that there is too much homework” to “I always lack confidence with my academic scores” (see appendix 6). Participants were instructed to state to which degree each statement related to them, using a five point likert scale ranging from “strongly agree” to “strongly disagree”. The items were divided into 5 sub scales; Pressure from studies, Workload, Worry about grades, Self expectation and Despondency. There were between 3 and 4 items belonging to each category. This questionnaire is scored by calculating the total score from all 16 items. The scores range from 16-80 and higher scores indicated higher levels of stress however there are no definite cut off points. The internal reliability of the ESS has been tested and showed a Cronbach’s Alpha score of 0.81 which shows good overall internal consistency.

## Results

### Descriptive Statistics

All data that was collected was analysed using SPSS Statistics 22. A total of (N= 210) participants were involved on this study. Descriptive statistics of gender showed that 37.9% of participants were male (N=79) and 62.4% were female (N=131). It was also found that 58.1% were 5th year students (N=121) and 41.9% were 6th year students (N=88).

In table 1 the mean, standard deviation, minimum and maximum scores from the data collected can be seen. The scores were taken from a likert scale for perceived academic pressure, The General Self Efficacy Scale, the DASS21 which was sub divided into Depression, Anxiety and Stress and finally, the Educational Stress Scale which was divided into the 5 latent variables sub scales of Pressure of studies, Workload, Worry about grades, Self expectancy and Despondency.

Table 1 *Descriptive Statistics of Data Collected*

Variable	N	Mean	SD	Min	Max
Perceived Academic Pressure	210	3.69	0.80	1	5
Total Self-efficacy	210	26.92	4.74	1	40
DASS Depression	210	2.60	1.49	1	5
DASS Anxiety	210	2.82	1.52	1	5
DASS Stress	210	2.37	1.35	1	5
ESS Pressure of Studies	210	10.13	5.04	4	63
ESS Workload	210	7.40	3.07	3	24
ESS Worry about Grades	210	7.28	2.86	3	15
ESS Self Expectancy	210	7.21	3.02	3	15
ESS Despondency	210	8.31	2.78	3	15

Figure 1 shows the total amount of participants that were in each category of the likert scale for Perceived Academic Pressure. It shows that the majority (N=99) of participants perceived themselves as being under a high amount of academic pressure however only one participant (N=1) felt they were under no academic pressure.

Table 2 highlights the gender differences between the scores and Table 3 shows the difference between 5th and 6th years' scores. We can see that female participants scored higher than males on the “extremely high” and “high” option, whereas males scored higher than females on “none”, “low” and “medium” option. It is also shown that twice as many 6th years scored “extremely high” than 5th years however the one score of “none” was for a 6th year male participant.

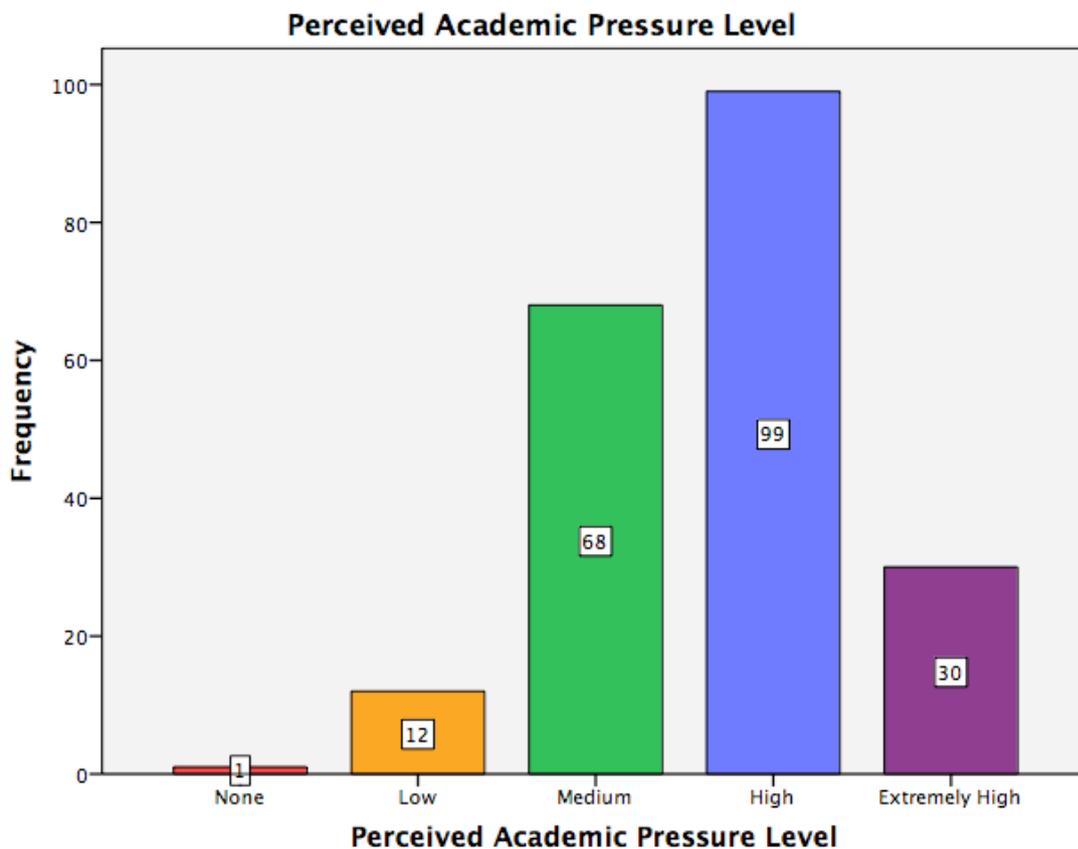


Figure 1. Bar Chart. Distribution of Perceived Academic Pressure Scores

Table 2 Perceived Academic Pressure Scores Gender Split

	N	%
<b>Male</b> None	1	1.3
Low	11	13.9
Medium	36	45.6
High	27	30.4
Extremely High	7	8.9
<b>Female</b> None	0	0
Low	1	0.8
Medium	32	24.4
High	75	57.3
Extremely High	23	17.6

Table 3 Perceived Academic Pressure Year of Study Split

	N	%
<b>5th Year</b> None	0	0
Low	8	6.6
Medium	53	43.4
High	51	41.8
Extremely High	10	8.2
<b>6th Year</b> None	1	1.1
Low	4	4.5
Medium	15	17
High	48	54.5
Extremely High	20	22.7

The items of the DASS21 are all divided into one of the following categories: depression, anxiety or stress. Each category has separate scoring conditions regarding the range of scores that are applicable to each sub scale (normal, mild, moderate, severe, extremely severe). Tables 4, 5 and 6 show the distribution of scores for each of the three categories. We can see that the majority of participants were in the “normal” category for depression, anxiety and stress (N=76, N=67, N=86).

Table 4 *DASS21 Depression Scores*

	N	%
Normal	76	36.2
Mild	28	13.3
Moderate	46	21.9
Severe	24	11.4
Extremely Severe	36	17.1

Table 5 *DASS21 Anxiety Scores*

	N	%
Normal	67	31.9
Mild	20	9.5
Moderate	49	23.3
Severe	31	14.8
Extremely Severe	43	20.5

Table 6 *DASS21 Stress Scores*

	N	%
Normal	86	41
Mild	27	12.9
Moderate	46	21.9
Severe	36	17.1
Extremely Severe	15	7.1

## Inferential Statistics

For the current study the first, second, third and fourth hypotheses were tested using a Pearson correlation coefficient test with the fifth and sixth hypotheses being tested using an independent samples t-test.

Table 7 highlights the relationships of hypotheses 1, 2, 3 and 4 and shows the correlation coefficients that were present between the dependant variable perceived academic pressure and the criterion variables; depression, anxiety, stress and self-efficacy. These correlations were discovered by use of statistical analysis using persons correlation tests.

*Table 7: Correlation table*

Variable	Depression	Anxiety	Stress	Self-efficacy
Perceived Academic Pressure	.44	.35	-.34	

A persons correlation coefficient found that there was a moderate positive correlation between perceived academic pressure (M= 3.69, SD= 0.80) and depression (M= 2.60, SD= 1.49) ( $r(208) = 0.44$ ,  $p < 0.001$ ). We can see from this that there is a relationship between participants levels of perceived academic pressure and their levels of depression. This relationship accounts for 19.36% of all variance.

A persons correlation coefficient found that there was a moderate positive correlation between perceived academic pressure (M= 3.69, SD= 0.80) and anxiety (M= 2.82, SD= 1.52) ( $r(208) = 0.35$ ,  $p < 0.001$ ). This shows us that there is a relationship between the participants anxiety levels and their levels of perceived academic pressure. This relationship accounts for 12.25% of all variance.

A persons correlation coefficient found that there was a moderate negative correlation between perceived academic pressure (M= 3.69, SD= 0.80) and stress (M=42.70, SD= 11.56) ( $r(208) = -.38, p < 0.001$ ). This showed that there was a negative relationship between perceived academic pressure and stress levels in the participants. This relationship accounts for 14.44% of all variance.

A persons correlation coefficient found that there was a moderate negative correlation between perceived academic pressure (M= 3.69, SD= 0.80) and self-efficacy (M=26.92, SD= 4.74) ( $r(208) = -.34, p < 0.001$ ). This showed that there was a relationship between the levels of perceived academic pressure of participants and their levels of self efficacy. However this variable produced a negative relationship because as the levels or perceived academic pressure increase, the levels of self-efficacy are seen to decrease. This relationship accounts for 11.56% of all variance.

An independent samples t-test found that there was a statistically significant difference between the perceived academic pressure levels of 5th year students (M= 3.52, SD= .741) and 6th year students (M= 3.93, SD= .828) ( $t(208) = -3.82, p = 0.000, CI(95\%) = -.630 - -.201$ ). By looking at the mean scores in table 9 we can see that 6th year students had higher levels of perceived academic pressure than 5th year students, showing that the pressure of the Leaving Certificate increases for students over time.

*Table 9: An Independent Samples T-test displaying the differences between the perceived academic pressure scores of 5th and 6th years.*

Variable	Groups	Mean	SD	t	DF	p
Perceived Academic Pressure				-3.82	208	.000
	5th Years	3.52	.741			
	6th Years	3.93	.828			

An independent samples t-test found that there was a statistically significant difference between the perceived academic pressure levels of males (M=3.32, SD= 0.87) and females (M= 3.92, SD= 0.67) ( $t(133.23) = -5.26$ ,  $p = .000$ , CI(95%)  $-.825 - .374$ ). We can see that by looking at the mean scores, females on average scored higher than males. This shows that females suffered from higher levels of academic pressure than their male counterparts. This is displayed in table 8 below.

*Table 8: An Independent Samples T-test displaying the differences between the perceived academic pressure scores of males and females.*

Variable	Groups	Mean	SD	t	DF	p
Perceived Academic Pressure	Males	3.32	0.87	-5.26	133.23	.000
	Females	3.92	0.67			

## Discussion

The objective of this study was to discover the effect that the Leaving Certificate process has on the mental wellbeing of 5th and 6th year students. The study set out to achieve this by hypothesising that there would be a statistically significant relationship between perceived academic pressure levels and depression, anxiety, stress and self-efficacy levels. It was also hypothesised that there would be a statistically significant difference between levels of perceived academic pressure and gender, as well as year of study.

It was first hypothesised that there would be a statistically significant relationship between perceived academic pressure and depression levels in 5th and 6th year students. The results of this study supported this hypothesis, finding there to be a moderately strong positive relationship present between the variables. This showed that the students who had higher levels of perceived academic pressure, scored higher on depression also. These findings are similar to the findings of the research of De Man and Leduc (1995) as well as Ang and Huan (2006) that showed that depression had a significant part in the relationship between academic stress and suicidal intention.

The second hypothesis stated that there would be a statistically significant relationship between perceived academic pressure and anxiety levels in 5th and 6th years. This hypothesis was supported by the results of the study which showed there to be a moderately strong positive relationship present. This relationship allows us to see that the participants who scored higher on perceived academic pressure, also scored higher on anxiety. The results of this study are similar to that of previous research that showed the presence of a relationship between academic pressure and anxiety levels (Quach, Epstein, Riley, Falconier & Fang, 2015)

The third hypothesis predicted that there will be a statistically significant relationship between perceived academic pressure and stress levels in 5th and 6th year students. This hypothesis was supported however the results differed from what was predicted. It was predicted that there would be a positive relationship between perceived academic pressure and stress, when in fact there was a moderate negative correlation present. This research showed that participants who had high levels of perceived academic pressure, had low levels of stress. These findings were in contrast to findings from research from Misra, Crist and Burant (2003) who found that high academic stressors were predictors of greater reactions to other stressors.

The fourth hypothesis states that there will be a statistically significant relationship between perceived academic pressure and self-efficacy levels in 5th and 6th years. This hypothesis was supported and a moderate negative relationship was discovered. This showed that student with higher levels of academic pressure had lower levels of self-efficacy. This result is in line with previous research as self-efficacy is defined as ones ability to manage stressors, it is a construct that is measured by the higher the score, the more self-efficacy one possesses. Therefore the more capable they are to manage difficulties. Past research from Bandura (1993) who made many advancements relating to self-efficacy, showed that low self efficacy in students relates to stress levels.

The fifth hypothesis stated that there will be a statistically significant difference in levels of perceived academic pressure between students in 5th year and students in 6th year. This hypothesis was supported and it was found that 6th year students on average, showed higher levels of perceived academic pressure than 5th years. This shows that over time, Leaving Certificate students are susceptible to more academic pressure. Other studies such as that of Hampel and Peterman (2005) reported similar findings that older students experienced greater academic stressors.

The sixth and final hypothesis states that there will be a statistically significant difference in levels of perceived academic pressure between male and female students. This hypothesis was supported by the findings of the research that showed that there was a gender difference among perceived academic pressure levels as more female students were under “high” or “extremely high” pressure than males whereas more males were under “low” academic pressure than females. This research highlights how males and females cope and react differently to pressure. The current study is in line with previous research by Misra, McKean, West and Russo (2000) which states that academic stress varies across gender.

There are certain limitations to this study that are important to discuss. Firstly, the data for this research was collected on several different days at differing times and this may have impacted results.

The data was collected from the girls school the week before the 6th year students sat their mock examinations but in the case of the boys school, it was the week after their examinations. This could be an explaining factor of why the male participants had a higher frequency of low perceived academic pressure score whereas the females had a higher frequency of extremely high perceived academic pressure as at the time of completing the questionnaires the males were under less stress, having finished their examinations while the female students still had the stress of the anticipation for their examinations. The data from both female 6th years and male 6th years was collected on Friday afternoons towards the end of the school day for both cases. This may have lead to students being more relaxed and optimistic about their answer and therefore feeling under less pressure due to their school week being almost over. In contrast, both sets of 5th years completed their questionnaires on a mid week day morning which could have caused them to be naturally under more pressure than they would be towards the end of the week.

The second limitation is the slight gender imbalance that was present in this study as the participants were not evenly divided by gender. There were 131 female participants but only 79 male participants. This poses the question that if there had been a larger male sample, would there a higher male score for perceived academic pressure? And would the distribution of results overall be any different if the sample was divided evenly by gender?

The third limitation to be discussed is the fact that the current study involved two separate schools in separate areas. This could have had an influence on the results found due to probable confounding variables that were not accounted for such as one school being more academic or competitive than the other. This could have therefore lead to participants of the more academic school being under a naturally higher level of pressure than the participants in the other school. Perhaps the study should have been conducted involving involving one same-sex school in order to avoid these possible confounding variables. The study could have also been conducted with more than one school from each gender to make the sample more diverse.

The final limitation involves the measures that were used in this study. As the inferential statistics have shown, the result for the relationship between stress and perceived academic pressure were not what were originally expected. A possible weakness from this could be that two measures were not needed to measure stress (DASS21 and ESS). Even though the Educational Stress Scale showed adequate internal reliability, it is questionable if it was necessary to include it as well as the DASS21 which had a sub scale to measure stress. It is probable that the combination of these measures had an effect on this relationship, causing the results to be different to expected. Even though the results were significant they showed a negative relationship which is on the contrary to most existing research.

Although there were several limitations and weaknesses to this study, the research had many strengths regardless. Firstly, the questionnaires were all relatively short, quick to complete and easy to understand.

The topic of the research was unique as it looked at a topic that is very prevalent but yet has not been explored in great depth. Currently very little research exists involving Leaving Certificate students and the effect that the process of the Leaving Certificate has on them. This study can add greatly to existing information regarding perceived academic pressure and depression, anxiety, stress and self-efficacy among students. Mental health and mental well-being is a topic that deserves much attention especially when it involves adolescents. The research conducted as part of this study has shown how an excess of academic pressure can have a negative effect on students' levels of depression, anxiety and self-efficacy which can result in an overall hindered mental wellbeing. The main strength of this study is that it highlights the importance of reducing excess academic pressure in schools in order to maintain the wellbeing of students.

This study not only highlights the effect of perceived academic pressure on students but also explores the gender differences as well as the difference between year groups on scores of perceived academic pressure, showing that it increases over the years of the Leaving Certificate process but also that it is more prevalent among female students than males. This is not an area of research that has been greatly examined previously.

Taking both the limitations and the strengths of this study into account, future research can add to the findings of this study in several ways. In relation to the second limitation of the research involving the students' varying responses due to other variables, it may be beneficial for future research of a similar kind to carry out a longitudinal study involving the same students over a longer period of time. One group of students could be administered the survey in 5th year and then re-

administered the same one again in 6th year and have their individual results compared. This may show an even stronger significant results.

It has become apparent from analysis of the results that measures must be put into place in secondary schools to better educate students on how to deal with academic pressure and stress. It would also be beneficial for teacher and principals to be educated on the negative effects of high academic pressure that this study has found. This could make all parties aware of how excess academic pressure can effect students.

Future research could develop on these finding and explore the possible relationship between academic ability and academic pressure to discover if students of a higher ability perceive a higher level of pressure. Research could also be conducted to explore students coping skills with stress and how that would effect their academic pressure levels.

In conclusion, this study aimed to assess if there was a statistically significant relationship to be found between perceived academic pressure and levels of depression, anxiety, stress and self-efficacy in Leaving Certificate students and if there was a statistically significant difference between the levels of perceived academic pressure of males and female students and 5th and 6th year students. The research showed support for all hypotheses, showing that perceived academic pressure correlated positively with depression and anxiety and negatively with stress and self-efficacy. It was also found that 5th year males experienced the least amount of academic pressure while 6th year females experiences the highest levels. This study adds to the existing literature of academic pressure and highlights the negative effects that high levels of perceived academic pressure from the Leaving Certificate can have on the mental well being of students. The knowledge from this research can be used by professional to implement the measures that need to be taken to reduce students' levels of academic pressure in order to make the Leaving Certificate a less negative experience than what it is currently known as.

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## **Appendix 1**

My name is Niamh Colgan and I am a final year Psychology student in Dublin Business School. I am currently conducting research with Leaving Certificate students and the effect that academic pressure has on students' mental health. This research is the basis of my final year project and will be submitted for examination.

You have been invited to take part in this study by completing and returning the following questionnaires which relate to academic pressure, stress, anxiety, depression and self efficacy. This questionnaire booklet contains four separate questionnaires which, in total should take no longer than ten minutes to complete.

It is important that you are aware that your participation in this study is completely voluntary and your responses will be anonymous. Due to this, it is not possible to withdraw from participation once your questionnaire booklet has been collected. The questionnaire booklet will be securely stored and the data from the questionnaires will be transferred from the paper record to an electronic format where they will then be stored on a password protected computer.

If the completion of this survey provokes any negative feelings, I have provided the contact details of some support services on the last page.

Should you require any further information regarding this research, feel free to contact either myself, Niamh Colgan at or my Supervisor, Rosie Reid at

## Appendix 2

Thank you for taking the time to complete this survey. If you have been affected by any of the issues raised by the surveys, here are the contact details of some organisations that can provide help if needed.

Niamh.

### Samaritans

Tel: 116123

E-mail: [jo@samaritans.org](mailto:jo@samaritans.org)

### Aware

Tel: 016617211

E-mail: [infor@aware.ie](mailto:infor@aware.ie)

### Appendix 3

In the following questions please tick the appropriate box.

Are you male or female?	Male	<input type="checkbox"/>
	Female	<input type="checkbox"/>
What year are you currently in?	Fifth Year	<input type="checkbox"/>
	Sixth Year	<input type="checkbox"/>
How would you rate the amount of experiencing?	academic pressure that you are currently	
1. None	<input type="checkbox"/>	
2. Low	<input type="checkbox"/>	
3. Medium	<input type="checkbox"/>	
4. High	<input type="checkbox"/>	
5. Extremely high	<input type="checkbox"/>	

### Appendix 4

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you *over the past week*. There are no right or wrong answers. Do not spend too much time on any statement.

*The rating scale is as follows:*

- 0 Did not apply to me at all
- 1 Applied to me to some degree, or some of the time
- 2 Applied to me to a considerable degree, or a good part of time
- 3 Applied to me very much, or most of the time

1 I found it hard to wind down	0	1	2	3
2 I was aware of dryness of my mouth	0	1	2	3
3 I couldn't seem to experience any positive feeling at all	0	1	2	3
4 I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5 I found it difficult to work up the initiative to do things	0	1	2	3
6 I tended to over-react to situations	0	1	2	3
7 I experienced trembling (eg, in the hands)	0	1	2	3
8 I felt that I was using a lot of nervous energy	0	1	2	3
9 I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
10 I felt that I had nothing to look forward to	0	1	2	3
11 I found myself getting agitated	0	1	2	3
12 I found it difficult to relax	0	1	2	3
13 I felt down-hearted and blue	0	1	2	3
14 I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3

15	I felt I was close to panic	0	1	2	3
16	I was unable to become enthusiastic about anything	0	1	2	3
17	I felt I wasn't worth much as a person	0	1	2	3
18	I felt that I was rather touchy	0	1	2	3
19	I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)	0	1	2	3
20	I felt scared without any good reason	0	1	2	3
21	I felt that life was meaningless	0	1	2	3

### Appendix 5

Please read the sentences below and select an answer for each statement which indicates how much the statement applies to yourself.

1 = **Not at all true** 2 = **Hardly true** 3 = **Moderately true** 4 = **Exactly true**

1	I can always manage to solve difficult problems if I try hard enough.	
2	If someone opposes me, I can find the means and ways to get what I want.	
3	It is easy for me to stick to my aims and accomplish my goals.	
4	I am confident that I could deal efficiently with unexpected events.	
5	Thanks to my resourcefulness, I know how to handle unforeseen situations.	
6	I can solve most problems if I invest the necessary effort.	
7	I can remain calm when facing difficulties because I can rely on my coping abilities.	
8	When I am confronted with a problem, I can usually find several solutions.	
9	If I am in trouble, I can usually think of a solution.	

10	I can usually handle whatever comes my way.	
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### Appendix 6

**Please read each of the following statements and circle the number that indicates how strongly the statement applies to your current feelings.**

- 1 = Strongly agree
- 2 = Agree
- 3 = Unsure
- 4 = Disagree

I am very dissatisfied with my academic grades	1	2	3	4	5
I feel that there is too much schoolwork	1	2	3	4	5
I feel there is too much homework	1	2	3	4	5
Future education and employment brings me a lot of academic pressure	1	2	3	4	5
My parents care about my academic grades too much. That brings me a lot of pressure	1	2	3	4	5
I feel a lot of pressure in my daily studying	1	2	3	4	5
I feel that there are too many tests/ exams in the school	1	2	3	4	5
Academic grade is very important to my future and even can determine my whole life	1	2	3	4	5
I feel that I have disappointed my parents when my tests/ exam results are poor	1	2	3	4	5
I feel that I have disappointed my teacher when my test/ exam results are not ideal	1	2	3	4	5
There is too much competition among classmates. That brings me a lot of academic pressure	1	2	3	4	5
I always lack confidence with my academic scores	1	2	3	4	5
It is very difficult for me to concentrate during class	1	2	3	4	5
I feel stressed when I do not live up to my own standards	1	2	3	4	5
When I fail to live up to my own expectations, I feel I am not good enough	1	2	3	4	5
5 = Strongly disagree	1	2	3	4	5
	1	2	3	4	5