

# **Academic Stress and Its Sources Among Junior High School Students**

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#### **ABSTRACT**

Knowing the sources of academic stress can be a beneficial foundation to treat it as one of the causes of teen's problems, especially at schools. Teachers, including counselling and guidance teachers can use it as a reference for supporting and helping the students to handle their stress and build their emotional resilience. This study aims to determine the sources of academic stress among junior high school. As many as 202 junior high school students were the participants of this study. By means of close and open questionnaires, this study tried to collect data on students' experiences, intensities, sources, and reasons for academic stress. The results of this showed that 98% of students had experienced academic stress with some intensities, namely "always" (57.4%), "often" (23.8%), "sometimes" (16.8%), and "never" (2%). The biggest source of academic stress came from the subject matter (26.7%). The reason most often cited by students was the difficulty of understanding the material. The second source of stress is assignments (18.3%) that students perceive as too much. The third source of stress is exams and teachers (16.8%). Students consider exams as a source of stress because the test items are difficult to work on, while teachers are seen as a source of stress because they sometimes are angry, emotional, impatient, and boring. The fourth source of stress is homework (14.9%) which is perceived as too much. Based on these findings, teachers are expected to be able to support students to be able to manage academic difficulties and motivate them to develop, enjoy the process, and optimize the quality of their learning. In addition, teachers are expected to apply and improve skills used to give feedback, present material, and build positive relationships with students in learning. Meanwhile, students should enhance their self-management and coping skills independently to deal with problems in the learning process in order to avoid academic stress.

**Keywords:** Academic stress source, Junior high school student

## 1. INTRODUCTION

School might be stressful for children and adolescents (Klinger et al., 2015) as it is a source of social and academic pressures (Santrock, 2002) with critical achievement competition (Wigfiels, Byrnes, & Eccles, 2006) [1][2][3]. The pressure comes from a large amount of workload, too much material to be studied, the need for students to show their best academic performance (Chraif, 2015, Huan, See, Ang, & Har, 2008) [4][5]. Academic demands reinforced by pressure from parents, schools, and peers (Kim, Kwak, & Lee, 2016, Deb, Strodl, & Sun, 2014) [6][7], class conditions, inadequate resources available to achieve academic achievement (Awino & Agolla, 2008) [8], as well as cultural factors (Kim & Park, 2003) [9].

It is assumed that school should be enjoyable for all students and teachers should maintain a manageable study load in such a way of minimizing such stress. (Whitaker, n.d.) [10]. It has been proven in many studies that the academic area becomes the main source of stress among students (Huan et al., 2008; Deb et al., 2014; Feld & Shusterman, 2015) [5][7][11], and influences their daily life (Kaplan, Liu, & Kaplan, 2005) [12]. Nevid, Rathus, and Greene (2008) state that stress is a pressure experienced by individuals in life [13]. If the intensity is high, it may last for a long time. When the amount exceeds one's capacity, it may cause various disorders, such as depression, anxiety, and various physical problems. It can also be manifested in the form of negative emotional experience followed by changes in biochemical, physiological, cognitive, and behavior (Taylor, 1995) [14].

Related to this condition, Wilks (2008) defines academic stress as a condition where students have academic demands over their capacity so that it stimulates helplessness as well as difficulties for adaptation and self-actualization ((Huan et al., 2008) [5][15]. Similarly, Kadapatti and Vijaylaxmi (2012) explain that academic stress is caused by excessive



demands in the academic field, but adaptive sources are insufficient [16]. As a result, students are not able to control their academic activities thus decreasing their motivation and ability to direct themselves (Liu, 2015) [17]. Based on these opinions, it can be concluded that academic stress is a condition where students feel a massive academic burden due to the limited adaptive sources to deal with it. When experiencing academic stress, students become helpless, some of them find it difficult to adjust to the academic rhythm and perform self-actualization. In details, the symptoms of academic stress are worries, anxiety, difficulty to relax and concentrate, indigestion, intense desire to consume food and drink, craving to smoke, strain on neck or shoulder, migraine, shortness of breath, and lots of sedative consumption (Agolla & Ongori, 2009) [18].

Academic stress maybe one of the impacts of the educational system implemented, because student learning activity is closely related to the educational system, such as grading system, insufficient resources, facilities (Awino & Agolla, 2008) [8], and school demands ((Verma, Sharma, & Larson, 2002; Tan & Yates, 2011) [19]. Research conducted in a developing country reveals that national curriculum and other centralistic educational systems including assessment, evaluation, and teacher standards are the main sources of academic stress. Indonesia, Malaysia, and the Philippine may be examples of this context. Diversity of cultural, social, and economic conditions may also be influential factors of academic stress in those countries. In Indonesia context, problems at school sometimes make only cognitively intelligent students, and putting aside the affective and psychomotor. The other main problem in schools is the changing curriculum. Often, if learning outcomes are not good, the government immediately changes the curriculum ((Megawanti, 2012) [20]. It makes students have to adaptation with new curriculum and stressed because their energy have to focus on curriculum changes not to learn the contents. Meanwhile they have to reach optimum academic accomplishment.

Academic stress can decline students' involvement or engagement in terms of school activity, class participation, and emotions (Fredricks, Blumenfeld, & Paris, 2004; Raufelder et al., 2014) [21][22]. It also triggers problems of self-adjustment ((Hussain, Kumar, & Husain, 2008) [23], academic requirements (Struthers, Perry, & Menec, 2000) [24], emotional and psychological development with a suicide idea as the

worst case (Ang & Huan, 2006) [25], pathological internet use (Jun & Choi, 2015) [26], anxiety and depression, (Nonterah et al., 2015) [27], violent behavior (Mason & Smithey, 2012) [28], various physical disorders such as heart problems and immune deficiencies (Trueba, Smith, Auchus, & Ritz, 2013a) [29], as well as neurological changes related to error processing in the brain (Jianhui et al., 2014) [30].

The massive effects of academic stress described above make it a risk that affects health (physical and mental) and well-being (Zhong, 2009) [31]. Furthermore, O'Connel, Boat, and Warner (2009) mention that one of the risks of adolescent mental health is stress in school due to the low academic achievement, and lack of commitment to the school [32]. Liu (2015) argues that academic stress can trigger depression and anxiety among adolescents in Shenzhen, China [17].

Studies prove that many factors need to be revealed in case of academic stress including coping behavior (Kausar, 2010) [33], demographic factor, workload, social support, dan stress feeling ((Kariv, Heiman, & Zion, 2015) [34], emotion regulation, self-leadership, positive affect, self-efficacy (Houghton, Wu, Godwin, Neck, & Manz, 2012) [35], as well as goal orientation and learning strategy (Kadivar, Kavousian, Arabzadeh, & Nikdel, 2011) [36]. However, this holistic awareness of academic stress requires full recognition of its sources. This is related to what students perceive as a stressor during their academic activity. Investigating the sources of junior high school student academic stress is important because various studies find that there are many sources of stress perceived by respondents from various levels of education (see table 1). Characteristics of development, especially cognitive development, determine how a person perceives his experience (Halonen & Santrock, 1999) [37]. Thus, overcoming the problem of academic stress in junior high school students also requires information about their perception of academic stress

To study what factors have been studied, the author made a list and sorted relevant findings through scholarly databases, namely Google Scholar and UGM.lib.ac.id like Cambridge, Proquest, Sage, Science Direct, and Springer from 2005 to 2018. Table 1 presents the summary of reported studies and various sources of academic stress in cultural and educational settings.

 Table 1. Source of academic stress according to studies between 2005 and 2018

No	Researchers	Source of academic stress	Research Participant
1.	Lee, Kang, & Yum (2005)	a) score and competition, b) career and future success, c) various demands and deadlines [38]	Undergraduate students in Korea
2.	Yan & Berliner (2009)	a) cultural and educational differences, b) limited language skills, c) ineffective interactions with American students [39]	International undergraduate students from China studying in the USA



3.	Agolla & Ongori (2009)	a) academic overload, b) fear of failure, c) inadequate facilities (computers, books, lectures) [18]	Undergraduate students in Botswana
4.	Kausar (2010)	Academic workload [33]	Undergraduate students in Punjab, Pakistan
5.	Tan & Yates (2011)	Parent, teacher, and self-academic expectation [19]	Senior high school students in Singapura
6.	Nandamuri & Gowthami (2012)	Daily assignments in class, placement activities, assessment, and group assignments [40]	Students of undergraduate management department in Andhra Pradesh, India
7.	May & Casazza, 2012)	Difficult courses (pharmacy and engineering) [41]	Undergraduate students in third, fourth, and fifth years.
8.	Weerasinghe, Batagoda, Chandrika, & Siriwardana, 2012)	Academic workload [42]	Undergraduate students at University of Colombo Sri Lanka
9.	Pandya, Deshpande, & Karani (2012)	Inadequate time for recreation and lecturers' teaching strategies [43]	Undergraduate Students of MBA in Gujarat, India
10.	Calaguas (2012)	Demands from parents, teachers, and students (a person's self) [44]	Undergraduate Students in Filipina
11.	Ford, Olotu, Thach, Roberts, & Davis (2014)	Assignment load [45]	Doctoral students of Pharmacy in the USA
12.	(Nakalema & Ssenyonga, 2014)	Financial problems, academic burdens or excessive assignments with the limited deadline, and high social demands [46]	Undergraduate students in Uganda
13.	Rakhmawati, Farida, & Nurhalimah (2014)	Academic expenses (assignments, examinations, and lecture activities) [47]	Undergraduate nursing students in Jakarta
14.	Akande, Olowonirejuaro, & Okwara-Kalu (2014)	Interpersonal problems, high academic load, low scores (under the target), excessive courses, difficult tests, and intensive debate with teachers [48]	Junior high school students in federal capital Territory of Abuja, Nigeria
15.	Azila-gbettor, Atatsi, Danku, & Soglo (2015)	Academic: score demands, examinations, subject matter, assignments, deadlines, examinations, assessment requirements, class discussions.  Time: time management.  Intrapersonal: fear of failure, low learning skills, procrastination, inferior feeling, thinking ability, Interpersonal: competition, lack of support from others, friendship problems.  Teacher quality: assessment, material access, irrelevant assignments.  Environment: campus access, facilities, unhelpful administrative staff, campus reputation, and environment adjustment [49]	Undergraduate business students in Ghana
16.	Bedewy & Gabriel (2015)	Academic expectations, assignments, examinations, students' self-perceptions related to academic performance [50]	Undergraduate students (age of 19-26) in Egypt
17.	Reddy, Menon, & Thattil (2018)	Low personal capacity, interpersonal relationships with teachers, interactions between teachers and students, and inadequate learning facilities. [51]	Undergraduate students in India
18.	Acosta-Gómez et al. (2018)	Exams, career choices, economic background, relationship problems with boyfriends or close friends,	Senior high school students in Mexico



		health problems, homework, teachers, etc.[52]	
19.	Alharbi & Smith (2018)	Cultural differences, language barriers, discrimination, loneliness, academic activities, and individual differences. [53]	International undergraduate students in English-Speaking Countries

1 shows that most studies involve undergraduate students (85%), two studies involve senior high students, and only 1 study involves junior high school students. The limited studies on the phenomena and sources of academic stress, especially for the junior high level, the early adolescent development, might have some impacts on the lack of reference for academic stress in this age group. It makes the treatments for the students ineffective. In fact, early adolescence is a transition period with a rapid process of change in cognitive, social, and emotional aspects accompanied by various complex demands and pressures in the case of social and academic areas (Santrock, 2002) [2]. This period is when academic stress most likely occurs. In early adolescence, anxiety begins to appear, especially related to their future, and it can be manifested in the form of fear of failure at school because school achievement is considered as a determining factor for an individual's career (Wrzesniewski & Chylinska, 2007) [54].

It should be noted that various studies indicate that most psychological problems in adulthood are derived from childhood and adolescence periods (Kim-Cohen et al., 2003) [55]. Therefore, studies involving teen is critical. Concerning this unclear academic stressor condition, this study examines academic stress, its intensity, and how junior high school students deal with it. Moreover, this study investigates the things perceived by junior high school students as sources of academic stress. The results of this study are expected to help teachers and schools appropriately overcome problems caused by student academic stress.

# 2. METHODS

This study employed the quantitative approach to examine academic stress among junior high school students, academic stress intensity, as well as sources and reasons for academic stress. The research subjects were the junior high school students from various schools in Yogyakarta and Sleman Regency. The students had diverse school backgrounds (favorite/non-favorite, religion/non-religion based, and public/private schools). This study involved four junior high schools with 276 students consisting of 117 males and 85 females between the ages of 11-17 and an age average of 13.5. The

participants voluntarily joined this study by filling in the forms of willingness to participate in the research.

The research instrument was a questionnaire, consisting of close-ended and open-ended items. The close-ended items were "yes" or "no" questions to reveal whether the students had experienced academic stress and how its intensity was. If they mentioned that they had academic stress, they need to "always", "often", "sometimes", and "rarely". Meanwhile, the open-ended items were to reveal the identity of the students, thus containing the name, age, sex, school, class, and sources of academic stress along with the reasons. The data were analyzed quantitively and presented in percentages. This procedure was to calculate the number of responses and to categorize based on its similarity. Then, the categorization results were analyzed based on the percentages. The instruments were validated by two experts in Psychology with a doctoral degree. The blueprint of the questionnaire is presented table 2 below.

**Table 2.** The blueprint of the academic stress questionnaire

No	Aspect
1.	Academic stress experiences
2.	The intensity of stress
3.	Sources of stress perceived
4.	The reasons for academic stress

The collected data show the complexity and diversity of students' responses and perceptions of stress. Table 3 presents a summary of the collected data. Based on Table 3, 198 respondents (98%) had experienced academic stress. In terms of the intensity, there were various responses, more than half of them stated "sometimes", and about a fifth chose "rarely"(23.8%) or "often" (16.8%).

Teachers, subject matter, scores, homework, assignments, self-demands, and examinations were chosen as the main sources of academic stress. Learning material is the most stated source of student academic stress. Then, subject matter (26.7%), assignment (18.3%), the teachers (16.8%) and examination (16.8%), and homework (14.9%) were the other sources of stress.



Table 3. Experience, intensity, and source of academic stress

Academic stress experience	Frequency	Percentage
Ever	198	98.0
Never	4	2.0
Total	202	100
Intensity	Frequency	Percentage
Rarely	48	23.8
Sometimes	116	57.4
Often	34	16.8
Always	4	2.0
Total	202	100
Source of academic stress	Frequency	Percentage
Teacher	34	16.8
Course materials	54	26.7
Score	8	4.0
Homework	30	14.9
No source of stress	4	2.0
Assignment	37	18.3
Self-demand	1	0.5
Exam	34	16.8
Total	202	100

There were various reasons stated by the students as the sources of academic stress. In detail, the reasons are presented in Tables 4,5,6 and 7.Students' reasons for choosing course materials as a source of academic stress are presented in Table 4.

Table 4. Students' reasons for choosing course materials as a source of academic stress

Reasons	Response	%
Full of memorization	15	8.7
Difficult (formula, material, to be understood, memorized, calculated)	96	55.8
Confusing, unclear	10	5.8
Overload	10	5.8
Too many essay questions	1	0.6
Full of theoretical issues	1	0.6
Boring	3	1.7
Lack of material (IT)	6	3.5
Lack of explanation	8	4.7
Dislike	8	4.7
Lack of time (Math)	1	0.6
Time Consuming	2	1.2
Many tests	1	0.6
Lazy to count (Math)	1	0.6
Easy to forget	1	0.6
High tense, confusing	6	3.5
Too many formulas	1	0,6
Carelessness	1	0.6
Total	172	100

In terms of assignments, students' reasons for choosing assignments as a source of academic stress are presented in Table 5.

In terms of examination, students' reasons for choosing examination as a source of academic stress are presented in Table 6.

Table 5. Students' reasons for choosing assignments as a source of academic stress.

Reasons	Response	%
Demanding	6	0.6
Overload	48	44.4



Limited time, tight deadline	2	1
Confusing, unclear	14	13
Irrelevant material	1	0.9
Boring (such as making summary)	3	2.8
Difficult, full of requirements	25	2.1
Costly	2	1.9
Dislike	1	0.9
Lazy	3	2.8
Forgettable	1	0.9
Complicated	2	1.9
Total	108	100

Table 6. Students' reasons for choosing examinations as a source of academic stress.

Reasons	Response	%
Difficult test item	21	35.6
No reasons	4	6.8
Irrelevant to the materials	3	5.1
Sudden occasion (no early announcement)	3	5.1
No material explanation	1	1.7
Overload (materials coverage, items number)	5	8.5
Incomprehensible content	3	5.1
Stressful and high tense	3	5.1
No preparation	8	13.6
Fail to remember the materials	5	8.5
No guidelines	1	1.7
Consecutive	1	1.7
Total	59	100

In terms of teachers, students' reasons for choosing teachers as a source of academic stress are presented in Table 7.

In terms of homework, students' reasons for choosing homework as a source of academic stress are presented in Table 8.

**Table 7.** Students' reasons for choosing teachers as a source of academic stress

Reasons	Response	%
Furious, emotional, cruel, violent, impatient, rude, yelling,	63	48.8
tense, horrifying teachers		
Boring	14	10.9
Strict (too serious)	2	1.6
Improper teaching method (many notes, lack of practice,	9	7.0
less explaining, unclear explanation)		
Not interesting	7	5.4
Perfectionist	1	0.8
Confusing	2	1.6
Resentful	3	2.3
Over discipline	2	1.6
Less attention to students	2	1.6
Quick explanation	2	1.6
Assignment only	2	1.6
Sarcasm	7	5.4
Trouble maker	2	1.6
Low voice	4	3.1
Verbal bullying	1	0.8
False accusation	1	0.8
Confounding	1	0.8
Tense	2	1.6
Incomprehensible	2	1.6
Total	129	100



Reasons	Response	%
Difficult	2	3.5
Overload	22	38.6
No explanation	1	1.8
Confusing	11	19.3
No reference	1	1.8
Sudden	1	1.8
Restricted, time consuming, uncomfortable	6	10.5
Dislike	2	3.5
difficult to memorize	2	3.5
Lazy	3	5.3
Too hard	4	7.0
No guidance	1	1.8
Exhausting	1	1.8
Total	57	100

**Table 8.** Students' reasons for choosing homework as a source of academic stress

In terms of scores, students' reasons for choosing scores as a source of academic stress are presented in Table 9.

**Table 9.** Students' reasons for choosing scores as a sources of academic stress.

Reasons	Response	%
Bad	30	83.3
Teachers' demand	1	2.8
High score demand (above 80),	5	13.9
fear of achieving below the target		
Total	36	100

In addition, there were several responses given by students regarding sources of academic stress with a small percentage, namely sports, classroom conditions, and extracurricular activities. Those factors are presented in Table 10

**Table 10.** Other sources of students' academic stress

Sources	Reasons	Response	%
Regulations	Excessive	1	25
Classroom	Noise	1	25
Extracurricular Activity	Too many activities	2	50
	Total	4	100

## 3. DISCUSSION

Identification of sources of student academic stress is one of the initial efforts to overcome the problem. The extent and severity of the negative impact of academic stress, in physical (Trueba, Smith, Auchus, & Ritz, 2013b) [56], psychological (Nonterah et al., 2015) [27], cognitive (Akram & Kahn, 2012)[57], social (Hussain et al., 2008), as well as motivational aspects (Liu, 2015) demand solutions as soon as possible [17]. Continuous efforts are needed to find various factors that influence

the students' academic stress in order to determine the right treatments.

The results of the study show that most students (98%) admitted that they had experienced academic stress. Academic stress is also determined by the context in which education takes place (Sun, 2012) [58]. Related to the educational context in Indonesia, the education system requires 9 years of compulsory education. It means that students from elementary to junior high schools are required to attend formal education. Thus, they have to go to schools and spend most of their time facing academic stressors from various sources. Academic stress is very possible to occur among students because they should face abundant academic requirements. At school, they need approximately 8 hours of learning. After school hours, they still have to struggle with academic activities, such as additional tutoring or homework. Therefore, junior high school students are very potential to experience academic stress.

The most responses related to the intensity of academic stress is "sometimes" (57.4%), meaning the intensity is mostly moderate. Moderate condition is the right condition because in learning students need a stressor, but in this case, a stressor that allows students to be able to overcome it, or often called eustress. Rafidah et al., (2009) believe that in an academic environment, stress can have a positive impact if the intensity is normal or moderate so that it supports learning and memory activities [59]. In other words, students can feel the positive impacts of stress if the amount of stress does not exceed their ability. The amount of stress that is sufficient or normal is necessary because it can activate brain performance. Schwabe and Wolf (2012) argue that stress can activate several memory systems in the human brain [60]. However, it is also necessary to be aware of the findings of this study which show that approximately 18.8% of students admit that they often or always experience academic stress. When the number of sources of stress exceeds the individual's capacity to deal with, it



will cause distress that has a negative impact (Gaol, 2016) [61].

The potential academic stress among students during the learning process requires more capacity so that there are optimal coping skills to handle academic stress. Therefore, when academic stressors arise, the students can immediately adapt and adjust to avoid the worse effect of distress (destructive effect of stress). This coping ability should be improved early even before academic stressors appear. It is an attempt by an individual to prevent or reduce the potential stressors rising (Aspinwall & Taylor, 1997) [62]. The efforts that can be made is conducting regular learning to prepare the exam with good material mastery. Moreover, students may ask teachers, parents, or peers about difficult material in advance. Then, they need to have effective time management and improve learning perseverance.

Based on the responses expressed by respondents, things that are considered sources of stress are presented: Course material (26,7 %), assignment (18,3), teacher and exam (16,8 %), Homework (14,9) and others (regulations, classroom, & extracurricular activities). This present study finds that course material including systems, curriculum, and learning strategies is the most chosen source of academic stress. This was mainly due to the fact that there was quite a lot of subject matter, so it was difficult to understand and memorize both the formula and the material. As a support Reddy, Menon, and Thattil (2018) state that the education system contributes to triggering academic stress, including the breadth of the syllabus (Agrawal & Chahar, 2007) [51][63]. Understanding and appreciating the challenges faced by students and willing to go the extra mile to help them reach their potential will definitely help reduce student academic stress.

Then, it is found that assignments are perceived by the students as the highest source of stress after the course material. It is in line with Agolla and Ongori's (2009) research conducted with Botswana students. It was found that academic overload is the first source of academic stress [18]. This burden might be from assignments or semester exams. Similar results are also shown in a cross-sectional study conducted by Hashmat (2020) that reveals that the most dominant contributors to academic anxiety are excessive workloads [64].

The following source of stress is teachers. These results are in line with the exploratory research conducted by Ong and Cheong (2009) in which teacher characteristics become one of the five strongest academic stressors for students [65]. Many students have negative perceptions of the teachers. They said that their teachers are furious, emotional, cruel, impatient, boring, and have improper teaching methods (too many note-taking activities, lack of practice, less explaining, unclear explanation). In fact, research by Dweck, Walton, and Cohen (2011) finds that students' perceptions of teacher caring behavior towards students were the strongest predictors of student performance [66]. The quality of the

student-teacher relationship has a very significant role in the feelings and responses of students towards school and school work. Students who have positive relationships with teachers tend to have positive emotions towards school and school work. Therefore, it is expected that teachers will be more proactive in developing positive relationships with students (Mc.Inerney & Mc.Inerney, 2006) [67]. The good relationship is reflected in low student-teacher conflict, low student dependence, high mutual respect, mutual support, and acceptance, warmth, caring, also closeness (Noble & McGrath, 2015) [68].

This study also finds that the exam is seen as a source of stress with quite strong impacts on students. This is relevant to the findings from Ong and Cheong's study (2009) conducted with Malaysian students taking credit transfer programs in American universities [65]. They admitted that excessive exams were one of the 5 biggest stressors in the academic context. According to Kumari and Jain (2014) students place a test as a source of stress due to the lack of preparation, inadequate learning styles, and limited information related to the examm [69]. To overcome this problem, students should be better prepared for examinations. In addition, they should enhance their involvement and positive emotions in the learning process. Teachers ought to improve the quality of the system that can stimulates students' enthusiasm in completing exams, for example by developing better academic scoring systems since it has been only oriented to cognitive mastery that ignore the processes. Teachers and the educational system tend to overemphasize the cognitive aspect and give little attention to other types of intelligence.

Research on the sources of academic stress among childhood and adolescence is urgently required due to limited references about this topic within the cultural context of Indonesia. The results of this present study are very meaningful to enhance the children's and adolescents' psychological development since academic stress can be a risk that affects health (physical and mental) and well-being (Zhong, 2009) [31].

Zhong (2009) argues that social support moderates academic stress related to well-being [31]. The optimum supports from people around students play a crucial role in decreasing academic stress. Thus, teachers, parents, and peers play important roles in preventing or overcoming academic stress among students.

#### 4. CONCLUSION

Based on the research findings, in general, students experience stress in the moderate category. This is an ideal condition to encourage students to learn because students get adequate challenges to motivate and show optimal performance in learning. It is necessary to increase student capacity in perceiving school demands so that they are able to perceive academic pressures as challenges that motivate them to develop. Moreover, there is a need to highlight that they should enjoy the process and optimize the quality of their learning.



Teachers are also expected to be able to support students to increase this capacity so that they do not perceive academic stress as something terrifying that must be avoided but as something to be dealt with using adequate capacity.

However, there are some respondents admitting that they often or always experience academic stress. This means that the academic stress faced has the potential to interfere with wellbeing because it is excessive and exceeds the individual's capacity to face it. This condition needs the attention of various parties, the government, students, teachers, and parents. When the number of sources of stress exceeds the individual's capacity, it will cause distress that has a negative impact. The government, especially the Ministry of Education and Culture should continuously improve the quality of education that includes the teacher education system, teacher development, and training, learning process, and materials, as well as an evaluation system to prevent students' academic stress.

Teachers need to improve and apply positive skills related to feedback, material presentation, and relationships with students so that the learning process is optimal (Heggart, 2016) [70]. Teachers need to develop positive emotions in learning because positive emotions can improve concept mastery (Fredrickson, 2004) [71], improve information processing skills (Cameron, Bertenshaw, & Sheeran, 2015) [72], expand and balance of internal and external attention (Vanlessen, Rossi, De Raedt, & Pourtois, 2013) [73], as well as facilitate the use of creative cognition (Rogaten & Moneta, 2015) [74]. Positive emotions also encourage students to think positively so that they are able to face challenges in learning (Tugade & Fredrickson, 2004) [75]. Strategies that can be taken include building a mutually supportive learning climate and optimizing appreciation so that students or anyone involved in the learning process feel meaningful (Setiyawati et al., 2017) [76].

In relation to research findings which show that most students experience academic stress, students should enhance their self-management and coping skills independently to deal with problems that arise in the learning process in order to avoid academic stress. Academic stress is a specific type of stress. Handling must involve solving academic problems that trigger academic stress, for example procrastinating. Asking for help and suggestions from competent parties and managing time for learning should be done to solve the problems. Avoiding and diverting attention from triggers of academic stress will increase academic stress because students are increasingly avoiding, away from sources of stress, and do not make solutions. On the other hand, academic-related activities are always limited by time (deadlines for assignments, homework, exams, and academic deadlines). The longer the individual avoids, the problems will accumulate and develop so that in the end academic stress will increase. Thus, emotional management is needed to stay focus and to be fully committed to learning and perform optimum capacity to

manage negative emotions that arise during learning, for example, boredom, anxiety, and annoyance. Researchers suggest that further research examine the sources of academic stress, particularly during childhood and adolescent period with the indigenous studies considering the limited references with the Indonesia context.

#### REFERENCES

- [1] Klinger, D. A., Freeman, J. G., Bilz, L., Liiv, K., Ramelow, D., Sebok, S. S., ... Rasmussen, M. (2015). Cross-national trends in perceived school pressure by gender and age from 1994 to 2010. *European Journal of Public Health*, 25, 51–56. https://doi.org/10.1093/eurpub/ckv027
- [2] Santrock, J. W. (2002). *life-Span Development* (8th ed.). New York: McGraw-Hill.
- [3] Wigfiels, A., Byrnes, J. ., & Eccles, J. . (2006). Development During Earlu and Middle Adolescence. In P. . Alexander & P. H. Winnie (Eds.), *Handbook of Educational Psychology* (pp. 87–113). New Jerzey: Lawrence Erlbaum Associates Publisher.
- [4] Chraif, M. (2015). Correlative Study between Academic Satisfaction, Workload and Level of Academic Stress at 3rd Grade Students at Psychology. *Procedia - Social and Behavioral Sciences*, 203, 419–424. https://doi.org/10.1016/j.sbspro.2015.08.317
- [5] Huan, V. S., See, Y. L., Ang, R. P., & Har, C. W. (2008). The impact of adolescent concerns on their academic stress. *Educational Review*, 60(2), 169– 178. <a href="https://doi.org/10.1080/00131910801934045">https://doi.org/10.1080/00131910801934045</a>
- [6] Kim, Y., Kwak, K., & Lee, S. (2016). Does Optimism Moderate Parental Achievement Pressure and Academic Stress in Korean Children? *Current Psychology*, 35(1), 39–43. https://doi.org/10.1007/s12144-015-9355-5
- [7] Deb, S., Strodl, E., & Sun, J. (2014). Academic-related stress among private secondary school students in India. *Asian Education and Development Studies*, 3(2), 118–134. <a href="https://doi.org/10.1108/AEDS-02-2013-0007">https://doi.org/10.1108/AEDS-02-2013-0007</a>
- [8] Awino, J. ., & Agolla, J. E. (2008). A Quest for Sustainable Quality Assurance Measurement for Universities: Case Study of the University of Botswana. *Educational Research and Reviews*, 3(6), 213–218. Retrieved from <a href="http://www.academicjournals.org/ERR">http://www.academicjournals.org/ERR</a>
- [9] Kim, U., & Park, Y. S. (2003). An indigeneous analysis of succes attribution: Comparison of



- Korean students and adults. Contribution in Psychology, 42, 171-198, 42, 171-198.
- [10] Whitaker, L. (n.d.). How Teacher can help students cope with stress. Retrieved from Association of California School Administrators website: <a href="https://content.acsa.org/articles/how-teachers-can-help-students-cope-with-stress">https://content.acsa.org/articles/how-teachers-can-help-students-cope-with-stress</a>
- [11] Feld, L. D., & Shusterman, A. (2015). Into the pressure cooker: Student stress in college preparatory high schools. *Journal of Adolescence*, 41, 31–42. https://doi.org/10.1016/j.adolescence.2015.02.003
- [12] Kaplan, D. S., Liu, R. X., & Kaplan, H. B. (2005). School related stress in early adolescence and academic performance three years later: The conditional influence of self expectations. *Social Psychology of Education*, 8(1), 3–17. https://doi.org/10.1007/s11218-004-3129-5
- [13] Nevid, J., Rathus, S. ., & Greene, B. (2008). *Abnormal Psychology in aChanging World* (7th ed.). Sadle River, N.J.: Perason Prentice Hall.
- [14] Taylor, S. E. (1995). *Health Psychology* (3rd ed.). New York: McGraw-Hill Company Inc.
- [15] Wilks, S. E. (2008). Resilience amid Academic Stress: The Moderating Impact of Social Support among Social Work Students. *Advances in Social Work*, 9(2), 106–125.
- [16] Kadapati, M. G., & Vijaylaxmi, A. H. M. (2012). Stressors of Academic Stress- A Study of Pre-University Students. *Indian Journal of Science Resources*, 3(1), 171–175.
- [17] Liu, Y. (2015). The longitudinal relationship between Chinese high school students' academic stress and academic motivation. *Learning and Individual Differences*, 38, 123–126. <a href="https://doi.org/10.1016/j.lindif.2015.02.002">https://doi.org/10.1016/j.lindif.2015.02.002</a>
- [18] Agolla, J. E., & Ongori, H. (2009). An assessment of academic stress among undergraduate students: The case of University of Botswana. 4(2), 63–70.
- [19] Tan, J. B., & Yates, S. (2011). Academic expectations as sources of stress in Asian students. *Social Psychology of Education*, *14*(3), 389–407. <a href="https://doi.org/10.1007/s11218-010-9146-7">https://doi.org/10.1007/s11218-010-9146-7</a>
- [20] Megawati, P. (2012). Meretas Permasalahan Pendidikan Di Indonesia Priarti. *Jurnal Ilmiah Pendidikan MIPA*, 2(3), 227–234.
- [21] Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School Engagement Potential of the Concept. *Review of Educational Research*, 74(1), 59–109.

- [22] Raufelder, D., Kittler, F., Braun, S. R., Lätsch, A., Wilkinson, R. P., & Hoferichter, F. (2014). The interplay of perceived stress, self-determination and school engagement in adolescence. *School Psychology International*, 35(4), 405–420. https://doi.org/10.1177/0143034313498953
- [23] Hussain, A., Kumar, A., & Husain, A. (2008). Academic Stress and Adjustment Among High School Students. *Journal of the Indian Academy of Applied Psychology*, 34(April), 70–73.
- [24] Struthers, C. W., Perry, R. P., & Menec, V. H. (2000). An examination of the Relationship Among Academic Stress, Coping, Motivation, and Performance in College. 41(5), 581–592. https://doi.org/10.1023/a:1007094931292
- [25] Ang, R. P., & Huan, V. S. (2006). Relationship between academic stress and suicidal ideation: Testing for depression as a mediator using multiple regression. *Child Psychiatry and Human Development*, 37, 133–143. https://doi.org/10.1007/s10578-006-0023-8
- [26] Jun, S., & Choi, E. (2015). Academic stress and Internet addiction from general strain theory framework. *Computers in Human Behavior*, 49, 282–287. <a href="https://doi.org/10.1016/j.chb.2015.03.001">https://doi.org/10.1016/j.chb.2015.03.001</a>
- [27] Nonterah, C. W., Hahn, N. C., Utsey, S. O., Hook, J. N., Abrams, J. A., Hubbard, R. R., & Opare-Henako, A. (2015). Fear of Negative Evaluation as a Mediator of the Relation between Academic Stress, Anxiety and Depression in a Sample of Ghanaian College Students. *Psychology and Developing Societies*, 27(1), 125–142. <a href="https://doi.org/10.1177/0971333614564747">https://doi.org/10.1177/0971333614564747</a>
- [28] Mason, B., & Smithey, M. (2012). The effects of academic and interpersonal stress on dating violence among college students: A test of classical strain theory. *Journal of Interpersonal Violence*, 27(5), 974–986. https://doi.org/10.1177/0886260511423257
- [29] Trueba, A. F., Smith, N. B., Auchus, R. J., & Ritz, T. (2013a). Academic exam stress and depressive mood are associated with reductions in exhaled nitric oxide in healthy individuals. *Biological Psychology*, 93(1), 206–212. <a href="https://doi.org/10.1016/j.biopsycho.2013.01.017">https://doi.org/10.1016/j.biopsycho.2013.01.017</a>
- [30] Jianhui, W., Yiran, Y., Hongxia, D., Shaozheng, Q., Buchanan, T. W., Kan, Z., & Liang, Z. (2014). Long-term academic stress increases the late component of error processing: An ERP study. *Biological Psychology*, 99, 77–82. <a href="https://doi.org/10.1016/j.biopsycho.2014.03.002">https://doi.org/10.1016/j.biopsycho.2014.03.002</a>



- [31] Zhong, L. F. (2009). Academic stress and subjective well-being: The moderating effects of perceived social support. *IE and EM 2009 Proceedings 2009 IEEE 16th International Conference on Industrial Engineering and Engineering Management*, (07), 1321–1324. https://doi.org/10.1109/ICIEEM.2009.5344424
- [32] O'Connel, M., Boat, T., & Warner, K. E. (2009). Research advances and promising interventions, preventing mental, emotional, and behavioral disorders among young people: Progress and possibilities. Washington, D.C.
- [33] Kausar, R. (2010). 10: Perceived stress, academic workloads and use of coping strategies by university students. *Journal of Behavioural Sciences*, 20, 31–45. Retrieved from <a href="http://pu.edu.pk/images/journal/doap/PDF-FILES/3rd-article-Vol-20-No-1-2010.pdf">http://pu.edu.pk/images/journal/doap/PDF-FILES/3rd-article-Vol-20-No-1-2010.pdf</a>
- [34] Kariv, D., Heiman, T., & Zion, R. Le. (2015). Stressors, Stress and Coping in Dual-Demand Environments: The Case of Working 'Back to Schoolers.' *Journal of Adult and Continuing Education*, 11(1), 91–110. https://doi.org/10.7227/jace.11.1.8
- [35] Houghton, J. D., Wu, J., Godwin, J. L., Neck, C. P., & Manz, C. C. (2012). Effective Stress Management: A Model of Emotional Intelligence, Self-Leadership, and Student Stress Coping. *Journal of Management Education*, 36(2), 220– 238. https://doi.org/10.1177/1052562911430205
- [36] Kadivar, P., Kavousian, J., Arabzadeh, M., & Nikdel, F. (2011). Survey on relationship between goal orientation and learning strategies with academic stress in university students. *Procedia Social and Behavioral Sciences*, 30, 453–456. https://doi.org/10.1016/j.sbspro.2011.10.089
- [37] Halonen, J. S., & Santrock, J. W. (1999). *Psychology, Context, and Application* (3rd ed.). Canada: McGraw-Hill Company Inc.
- [38] Lee, D. H., Kang, S., & Yum, S. (2005). A Qualitative Assessment of Personal and Academic Stressors among Korean College Students: An Exploratory Study. 2College Student Journal, 39(3), 442–448. Retrieved from <a href="http://ezproxy.lib.utexas.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=s3h&AN=18404415&site=ehost-live">http://ezproxy.lib.utexas.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=s3h&AN=18404415&site=ehost-live</a>
- [39] Yan, K., & Berliner, D. C. (2009). Chinese international students' academic stressors in the United States. *College Student Journal*, *43*(4), 939–960. https://doi.org/10.1007/s12564-010-9117-x

- [40] Nandamuri, P. P., & Gowthami, C. (2012). Sources of academic stress- A study on management students. *Journal of Management and Science*, *I*(2), 31–42. Retrieved from https://ssrn.com/abstract=2642783
- [41] May, R. W., & Casazza, S. P. (2012). ACADEMIC MAJOR AS **PERCEIVED STRESS** Α INDICATOR: **EXTENDING STRESS** MANAGEMENT ...: EBSCOhost. College Student 46(2), Retrieved Journal, 264–273. http://encore.utep.edu:50080/ebsco-wa/ehost/pdfviewer/pdfviewer?sid=a0dc4923-e703-4e5b-8546d052ac9e5f8e%40sessionmgr4010&vid=1&hid=4 204
- [42] Weerasinghe, T. D., Batagoda, C. K., Chandrika, K. A. C., & Siriwardana, W. K. C. U. (2012). Prevalence and Determinants of Stress among Undergraduates: A Study of Public Universities in Colombo Region. The Seventh International Research Conference on Management and Finance, 2(Ircmf), 478–492.
- [43] Pandya, B. U., Deshpande, R., & Karani, A. (2012). A Study on Impact of Academic Stress on MBA Students of Gujarat Technological University. *Journal of Arts, Science & Commerce*, 3(3), 20–28. <a href="https://doi.org/ssrn.com/abstract=2126454">https://doi.org/ssrn.com/abstract=2126454</a>
- [44] Calaguas, G. M. (2012). Parents/teachers and self-expectations as sources of academic stress. International Journal of Research Studies in Psychology, 2(1), 43–52. https://doi.org/10.5861/ijrsp.2012.136
- [45] Ford, K. C., Olotu, B. S., Thach, A. V., Roberts, R., & Davis, P. (2014). Factors Contributing to Perceived Stress among Doctor of Pharmacy (PHARMD) Students. *College Student Journal*, 48(2), 189.
- [46] Nakalema, G., & Ssenyonga, J. (2014). Academic Stress: Its Causes and Results At a Ugandan University. *African Journal of Teacher Education*, 3(3). https://doi.org/10.21083/ajote.v3i3.2762
- [47] Rakhmawati, I., Farida, P., & Nurhalimah. (2014). Sumber Stress Akademik dan Pengaruhnya Terhadap Tingkat Stress Mahasiswa Keperawata DKI JAKARTA. *JKep*, vol 2 no 3, 72–84.
- [48] Akande, J. A., Olowonirejuaro, D. A. O., & Okwara-Kalu, D. C. E. (2014). A Study of Level and Sources of Stress among Secondary School Students. *IOSR Journal of Research & Method in Education* (*IOSRJRME*), 4(5), 32–36. https://doi.org/10.9790/7388-04513236



- [49] Azila-gbettor, E. M., Atatsi, E. A., Danku, L. S., & Soglo, N. Y. (2015). Stress and academic achievement: Empirical evidence of business students in a Ghanaian polytechnic. *International Journal of Research in Business Studies and Management*, 2(4), 78–98.
- [50] Bedewy, D., & Gabriel, A. (2015). Examining perceptions of academic stress and its sources among university students: The Perception of Academic Stress Scale. *Health Psychology Open, July-Decem*, 1–9. <a href="https://doi.org/10.1177/2055102915596714">https://doi.org/10.1177/2055102915596714</a>
- [51] Reddy, K. J., Menon, K. R., & Thattil, A. (2018). Academic stress and its sources among university students. *Biomedical and Pharmacology Journal*, 11(1), 531–537. https://doi.org/10.13005/bpj/1404
- [52] Acosta-Gómez, M. G., Roca-Chiapas, J. M. D. la, Zavala-Bervena, A., Cisneros, A. E. R., Pérez, V. R., Rodrigues, C. D. S., & Novack, K. (2018). Stress in High School Students: A Descriptive Study. *Journal of Cognitive Behavioural Therapy*, 1(1), 1–10. Retrieved from www.openaccesspub.org
- [53] Alharbi, E. S., & Smith, A. P. (2018). Review of the Literature on Stress and Wellbeing of International Students in English-Speaking Countries. *International Education Studies*, 11(6), 22. https://doi.org/10.5539/ies.v11n6p22
- [54] Wrzesniewski, K., & Chylinska, J. (2007).

  Assessment of coping styles and strategies with school-related stress. *School Psychology International*, 28(2), 179–194. <a href="https://doi.org/10.1177/0143034307078096">https://doi.org/10.1177/0143034307078096</a>
- [55] Kim-Cohen, J., Caspi, A., Moffitt, T. E., Harrington, H. L., Milne, B. J., & Poulton, R. (2003). Prior juvenile diagnoses in adults with mental disorder: Developmental follow-back of a prospective-longitudinal cohort. *Archives of General Psychiatry*, 60(7), 709–717. https://doi.org/10.1001/archpsyc.60.7.709
- [56] Trueba, A. F., Smith, N. B., Auchus, R. J., & Ritz, T. (2013b). Academic exam stress and depressive mood are associated with reductions in exhaled nitric oxide in healthy individuals. *Biological Psychology*, 93(1), 206–212. <a href="https://doi.org/10.1016/j.biopsycho.2013.01.017">https://doi.org/10.1016/j.biopsycho.2013.01.017</a>
- [57] Akram, M., & Kahn, I. M. (2012). Assessment of Academic Stress and Problem Solving among Senior Secondary School Students. *Social Science International*, 28(2), 265–274.

- [58] Sun, J. (2012). Educational Stress among Chinese Adolescents: Measurement, Risk Factors and Associations with Mental Health (Queenland University). Retrieved from https://core.ac.uk/download/pdf/10913069.pdf
- [59] Rafidah, K., Azizah, A., Norzaidi, M. D., Chong, S. C., Salwani, M. I., & Noraini, I. (2009). Stress and Academic Performance: Empirical Evidence from University Students. Academy of Educational Leadership Journal, 13(1), 37. Retrieved from <a href="https://www.researchgate.net/publication/2996155">https://www.researchgate.net/publication/2996155</a>
  <a href="mailto:55">55</a> STRESS AND ACADEMIC PERFORMAN CE EMPIRICAL EVIDENCE FROM UNIVER SITY STUDENTS?enrichId=rgreq-2c288332709c52269c228c1184609786-XXX&enrichSource=Y292ZXJQYWdlOzI5OTYx NTU1NTtBUzozNDczMzEzNTU1MjkyMTZAM TQ10TgyMTY
- [60] Schwabe, L., & Wolf, O. T. (2012). Stress modulates the engagement of multiple memory systems in classification learning. *Journal of Neuroscience*, 32(32), 11042–11049. <a href="https://doi.org/10.1523/JNEUROSCI.1484-12.2012">https://doi.org/10.1523/JNEUROSCI.1484-12.2012</a>
- [61] Lumban Gaol, N. T. (2016). Teori Stres: Stimulus, Respons, dan Transaksional. *Buletin Psikologi*, 24(1), 1. <a href="https://doi.org/10.22146/bpsi.11224">https://doi.org/10.22146/bpsi.11224</a>
- [62] Aspinwall, L. G., & Taylor, S. E. (1997). A stitch in time: Self-regulation and proactive coping. *Psychological Bulletin*, 121(3), 417–436. <a href="https://doi.org/10.1037/0033-2909.121.3.417">https://doi.org/10.1037/0033-2909.121.3.417</a>
- [63] Agrawal, R. K., & Chahar, S. S. (2007). Examining role stress among technical students in India. Social Psychology of Education, 10(1), 77–91. <a href="https://doi.org/10.1007/s11218-006-9010-y">https://doi.org/10.1007/s11218-006-9010-y</a>
- [64] Hashmat, S. (2020). Original Article Factors causing exam anxiety in medical students. (April 2008).
- [65] Ong, B. & Cheong, K. C. (2009). Sources of stress among college students-the case of credit transfer program. *College Student Journal*, 43(4), 1279– 1286.
- [66] Dweck, C. S., Walton, G. M., & Cohen, G. (2011). Academic tenacity. White Paper Prepared for the Gates Foundation. Seattle, WA.
- [67] Mc.Inerney, D. ., & Mc.Inerney, V. (2006). Educational Psychology: Constructing learning (4th ed.). Frenchs Forest, New South Wales: Pearson Education Australia.
- [68] Noble, T., & McGrath, H. (2015). PROSPER: A New Framework for Positive Education.



- *Psychology of Well-Being*, 5(2). https://doi.org/10.1186/s13612-015-0030-2
- [69] Archana Kumari The. (2014). Examination Stress and Anxiety: a Study of College Students. *Global Journal of Multidisciplinary Studies*, 4(1), 31–40.
- [70] Heggart, K. (2016). How important is subject matter knowledge for a teacher. Retrieved from Edutopia George Lucas Educational Foundation website: <a href="https://www.edutopia.org/discussion/how-important-subject-matter-knowledge-teacher">https://www.edutopia.org/discussion/how-important-subject-matter-knowledge-teacher</a>
- [71] Fredrickson, B. L. (2004). The broaden-and-build theory of positive emotions. *Philosophical Transactions of the Royal Society Biological Sciences*, 359, 1367–1377. <a href="https://doi.org/10.1098/rstb.2004.1512">https://doi.org/10.1098/rstb.2004.1512</a>
- [72] Cameron, D. S., Bertenshaw, E. J., & Sheeran, P. (2015). The impact of positive affect on health cognitions and behaviours: a meta-analysis of the experimental evidence. *Health Psychology Review*, 9(3), 345–365. https://doi.org/10.1080/17437199.2014.923164
- [73] Vanlessen, N., Rossi, V., De Raedt, R., & Pourtois, G. (2013). Positive emotion broadens attention focus through decreased position-specific spatial encoding in early visual cortex: Evidence from ERPs. *Cognitive*, *Affective and Behavioral Neuroscience*, 13(1), 60–79. <a href="https://doi.org/10.3758/s13415-012-0130-x">https://doi.org/10.3758/s13415-012-0130-x</a>

- [74] Rogaten, J., & Moneta, G. B. (2015). Use of Creative Cognition and Positive Affect in Studying: Evidence of a Reciprocal Relationship. *Creativity Research Journal*, 27(2), 225–231. <a href="https://doi.org/10.1080/10400419.2015.1030312">https://doi.org/10.1080/10400419.2015.1030312</a>
- [75] Tugade, M. M., & Fredrickson, B. L. (2004). Resilient individuals use positive emotions to bounce back from negative emotional experiences. *Journal of Personality and Social Psychology*, 86(2), 320–333. <a href="https://doi.org/10.1037/0022-3514.86.2.320">https://doi.org/10.1037/0022-3514.86.2.320</a>
- [76] Setiyawati, D., Hidayati, N. K., Hamsyah, F., Jatmika, W. N., Syakarofath, N., Puspakesuma, N., ... Supriyadi, A. (2017). Buku Panduan Program Sekolah Sejahtera (Prosperous School Program Guidebook). Yogyakarta: Center for Public Mental Health, Fakultas Psikologi, Universitas Gadjah Mada.