

# FACTORS THAT CONTRIBUTE TO THE ISSUE OF HEAVY SCHOOL BAGS AMONG PRIMARY SCHOOL STUDENTS

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**Abstract:** The issue related to students' heavy bags is a long-standing issue in Malaysia, especially among Standard 1, Standard 2 and Standard 3 primary school students. This issue of heavy school bags can have a negative impact on students in which they are exposed to possibility effected their body alignment. Therefore, this study, which is in the form of a case study has been conducted to identify the factors that cause the issue of heavy bags brought by primary school students to school. This study involved 221 Year 2 students in a primary school who have been chosen through purposive sampling method. The research data was collected by using a survey form that was built by the researchers. The findings of the study showed that there are three main themes as contributing factors in the issue of the existence of heavy bags among primary school students. The three main factors that have been identified in this study are (1) time management, (2) self-discipline, and (3) student attitude. Through the findings of this study, a conclusion can be made that the role of parents and guardians is very important in helping to reduce the issue of students bringing heavy school bags to school. If parents and guardians play their role more effectively, then these three main factors contributing to the issue of heavy bags in the school being studied can be successfully reduced.

**Keyword:** The Heavy School Bag, Student Attitude, Self-Management, Self-Discipline, Parents' Role

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## INTRODUCTION

Talking about the students and the school, we cannot refuse to talk about their school bags. This is because every school student will bring a bag to school. Every parent and student will choose the best perfect school bag to take to school according to their needs, comfort, and interests. The school bag should be a basic school equipment that helps students to carry their learning needs at school such as textbooks, exercise books, activity books, stationery and so on. However, when students bring their bags to school, there will be one of the issues that the parents are worried with, which is the issue related to school bags, the issue of their child have to carry heavy school bags.

According to a letter issued by the Malaysian Ministry of Education - the issue of heavy bags is still an issue that is often raised by various parties and is a concern for parents (Malaysia Education Ministry, 2022). Among the main issues raised by various stakeholders in education in Malaysia is the issue of heavy school bags (Hazlina Aziz, 2018). The issue of heavy bags can have a negative impact on students' health as a result of carrying heavy school bags. According to Hazlina Aziz again, the issue of heavy bags is the most received complaint when parents voice their concern that their children's school bags, especially from primary school, are getting heavier. According to Meenakshi et al. (2023) the heavy school bags carried by the school students can cause adverse effect on musculoskeletal system of the children which will caused them to have headache, muscle strain, chronic back, neck, and shoulder pain. Carrying heavy school bags may also lead to child lean forward which leads to consumption of more energy by the body and decreased in the lung volume (Meenakshi et al., 2023).

## RESEARCH BACKGROUND

There is a growing concern these days that school children are carrying too heavy schoolbag on their backs, especially the primary school students (Shurul Azwa Shuhaimi & Haliza Abdul Rahman, 2020). Around the world, more than 90% of children are currently seen carrying a backpack (Sheir Neiss et al., 2003). According to Shurul Azwa Shuhaimi and Haliza

Abdul Rahman (2020), these primary school students are at their very important developmental stage, therefore it is important that they do not carry superfluous loads on their back.

The impact of lifting heavy school bags can cause pain in the involved joints, fatigue, discomfort, too heavy school bags cause tension in the shoulder and neck muscles. Changes to walking style and incorrect body posture will cause pain in the knee joint. In the country of Singapore, the Ministry of Education there has determined that the weight of bags that students can bring to school cannot exceed 10 or 15 percent of the student's body weight (HarakahDaily, 2018). The rules are made on the grounds of preventing school children from being injured. Supporting this statement, it is found that there is a significant association between heavy school bags and occurrence of physical pain especially to students' neck, shoulders, and backpain. This physical pain caused students to feel pain while carrying their heavy school bags either on their one shoulder or two shoulders (Samina Ghulam Hussain, Atiq Ur Rehman, & Mahwish Siraj, 2022). According to Samina Ghulam Hussain et al. (2022), there is an insignificant association between mode of carrying school bags and occurrence of physical pain among school students.

### **PROBLEM STATEMENT**

Pupils burdened with heavy school bags is not a new issue or problem, but this issue has existed for a long time and is being talked about by parents. Parents often put textbooks and workbooks as the main reason why their children's bags are heavy. On the other hand, the teachers or the school say that textbooks and workbooks are not the main cause of the students' bags being heavy because according to them the school bags will not be heavy if the students bring their textbooks and workbooks according to the timetable that has been prepared by the school.

Meenakshi et al. (2023) in their study found that there was high percentage children carrying heavy school bag which are 10% more heavier than their body weight in all classes of both schools that they observed which they found that 80.2% were private school students and 69.7% were students in government school.

Al-Saleem et al., (2016) claimed that carrying heavy school bags on students' back can change their body posture. This is because their musculoskeletal system must react appropriately in order to satisfy for this heavy load stress on their back. In addition, according to Mwaka et al. (2014), school children also experienced pain in the upper body involving their neck, shoulders and upper back which is associated with carrying heavy loads on their back. This physical pain is directly and indirectly effecting the academic performance of students as well some time it leads towards dropout (Samina Ghulam Hussain et al., 2022). In addition, Malaysia Ministry of Education has come up with several methods to resolve the issue of heavy bags for school children after conducting extensive research based on feedback by various stakeholders and found that the issue is very critical among primary school students, especially Level 1 students, namely Year 1, Year 2 and Year 3 (Anis Zalani, 2022).

### **RESEARCH OBJECTIVES**

For this study, the researcher has set four research objectives as follows:

- i. Identifying the issue of heavy bags among Year Two students.
- ii. Identify the weight of the bags of Year Two students.
- iii. Identify the average number of books (textbooks, activity books, and exercise books) brought by Year Two students.
- iv. Identify the reasons why Year Two students do not bring their books (textbooks, activity books, and exercise books) according to the timetable.

## METHOD

This study uses the survey research method. This study involved a total of 221 Year Two students. Respondents for this study were selected using the cluster sampling method where all Year Two students were involved in this study.

The data for this study was collected using a questionnaire that was constructed by the researcher himself. This questionnaire has gone through the validation process with the approval of 3 experts. Based on this expert's feedback, some improvements have been made by the researcher to this questionnaire. The collected data was analyzed descriptively using frequency and percentage. Apart from that, for the answers to open-ended questions, the researcher has analyzed the respondents' answers using the thematic method.

This study is a case study in the form of a survey that uses a combined design between quantitative and qualitative (mixed method). A case study is a research method that involves the collection of data where the researcher goes to the field and sees for himself the real atmosphere through observation, interviews and other appropriate methods based on the place of study (Creswell, 2014). The researcher has chosen a study in the form of a case study because the researcher is confident that this study in the form of a case study can help the researcher obtain accurate information related to a matter to be studied. In this study, the researcher wants to obtain information related to the issue of heavy bags among Year Two students, the weight of the bag, the average number of books (textbooks, activity books, and exercise books) brought to school, whether the respondents brought their books (textbooks, activity books, and exercise books) according to the timetable or not, and the reasons why respondents did not bring their books (textbooks, activity books, and exercise books) according to the timetable.

For the collection of quantitative data, the researcher has used a questionnaire. While to obtain qualitative data, the researcher has used open-ended questions that have been given in the questionnaire.

## RESPONDENTS

Population is a group of individuals that have been identified to represent the criteria that have been determined by the researcher based on the objectives of the study (Creswell, 2014). The study population consisted of a total of 221 Year Two students at a school that had been involved in this study.

The study respondents are part of the studied population (Creswell, 2014; Othman Lebar, 2018). The researcher has used a cluster sampling technique to select respondents for this study. The characteristics of the respondents that have been determined by the researcher in this study are that the respondents must consist of Year Two students who study at the school being studied.

## INSTRUMENT

For this study, the researcher has developed a questionnaire for the purpose of obtaining research data. This questionnaire has gone through a face-to-face validation process where the researcher used the services of three experts to confirm the validity of the content of the questionnaire instrument used in this study. Face validity is important for researchers who build their own research instruments (Othman Lebar, 2018).

The questionnaire that was built has two parts, Part A and Part B. Part A is related to demographic information, while Part B is about heavy bags, which is the data needed to answer this research question. Part B has ten question items that require the respondent to answer either "Yes" or "No". Apart from that, in Part B there are also two open questions where one question requires the respondent to fill in the number of books they bring to school and another question requires the respondent to fill in an open question stating the reason why they did not follow the timetable if their answer was for the item before this is "No".

The data collection procedure for this study is through the use of a questionnaire. The researcher personally distributed the questionnaire to the respondents by asking the permission of their class teacher. Information was given to all respondents on how they were required to fill out the questionnaire. The researcher explained the meaning of each question in the questionnaire and recollected all the questionnaires that had been filled out by the respondents. This action is taken because the respondents are year two students who may find it difficult to understand each question in the questionnaire and they are also likely to be confused with how they should respond in the questionnaire.

For the purpose of this study, for quantitative data, the researcher has analyzed the data using frequency and percentage. For qualitative data that requires respondents to respond to open questions, qualitative data analysis includes the process of coding, categorizing, and constructing important meanings in a phenomenon (Creswell, 2014). For qualitative data, the researcher has used thematic analysis method.

## FINDINGS

### *Demographic Information*

A total of 221 Year Two students were involved as respondents in this study (see Table 1 below). All respondents were selected using the cluster sampling technique where all Year Two students were selected as respondents for this study. Consent forms has been distributed to their respective parents and guardians. This study involved a total of 221 students with 121 students were male ( 54.75%) and 100 students were female (42.25%).

**Table 1**

*Number of Respondents Based on Gender*

Gender	Number	Percentage
Male	121	54.75%
Female	100	45.25%
Total	221	100%

### *The Issue of Heavy Bags Among Year Two Students*

Regarding the issue of heavy bags among Year Two students who were involved in this study, the findings showed that a total of 116 respondents (52.49%) said they follow their timetable to bring their school textbooks and exercise books to school. A total of 96 respondents (43.44%) said they brought activity books in addition to their textbooks to school according to the timetable every day.

Table 2 shows that a total of 121 respondents (54.75%) admitted that they feel their school bag is heavy every day and admitted that their school bags are full of books. 61 respondents (27.6%) said their bags were heavy even though they did not have many books in the bag. However, 20 respondents (9.05%) admitted that their school bag had items that they should not bring to school.

In Table 2, regarding the statement of leaving textbooks, workbooks/activity books in class, only 61 respondents (27.6%) admitted that they left their textbooks in class. 50 of the respondents (22.62%) admitted they left their workbooks/activity books in class. In making decision not to leave their textbooks/ activity books/workbooks in class, almost all respondents, 201 respondents (90.95%) said that they were worried about leaving their textbooks/ activity books/workbooks in class.

**Table 2***Responses of Respondents Regarding Their School Bags*

Item	Question	Yes	%	No	%
1	I bring textbooks to school according to the timetable every day.	116	52.49	105	47.51
2	I bring exercise books to school according to the timetable every day.	116	52.49	105	47.51
3	I bring the activity book to school according to the timetable every day.	96	43.44	125	56.56
4	I feel my school bag is heavy every day.	121	54.75	100	45.25
5	My bag is heavy due to many books in my bag	121	54.75	100	45.25
6	My bag is heavy even though there are not many books.	61	27.6	160	72.4
7	My bag has things I shouldn't bring to school.	20	9.05	201	90.95
8	I left my textbook in my class	61	27.6	160	72.4
9	I left my workbook/ activity book in my class.	50	22.62	171	77.38
10	I worry about leaving my textbook/ activity book/ workbook in my class.	201	90.95	20	9.05

***How Much Does a Year Two Students' Bag Weight?***

Regarding the weight of bags brought by respondents to school, the findings of the study have found that on average 35 respondents (15.84%) brought between 3 kg to 6 kg weight of school bag, 142 respondents (64.25%) brought between 6.01 kg to 10 kg weight of school bag, and 44 respondents (19.91%) brought between 9.01 kg to 12 kg weight of school bag (refer to Table 3 below).

**Table 3***The Weight of The Bag That Respondents Brought to School*

Bag's Weight	No of Student	%
3.00 kg - 6.00 kg	35	15.84
6.01 kg – 9.00 kg	142	64.25
9.01 kg – 12.00 kg	44	19.91

***What is the Average Number of Books (Textbooks, Activity Books, and Exercise Books) Brought by Second Year Students?***

Regarding the number of books that respondents bring to school every school day, the findings of the study show that on average, respondents bring 5 to 22 books every day to school. The books referred to here are textbooks, exercise books, workbooks, and picture dictionaries. The number of books brought by the respondents according to the range is as shown in Table 4 below.

**Table 4***Number of Books That Respondents Brought to School Every Day*

Number of Books	Number of Students
5-10	70
11-5	35
16-20	60
21-25	10

***What are the Reasons for Second Year Students Not Bringing Their Books (Textbooks, Activity Books, and Exercise Books) According to the Schedule?***

For the question "Reason if you don't follow the timetable", the findings have found that respondents have given various answers. Based on the answers given by the respondents, the researcher has listed three main themes which are (1) time management, (2) self-discipline, and (3) student attitude. For the first theme which is time management, the responses given by the respondents were "sleep early", "didn't have time", and "sleepy". For the second theme, which is 'self-discipline', the responses given by the respondents were "forgot", "looked at the wrong schedule", "lost the timetable", "scratched sister", "broken schedule", and "lost schedule". While for the third theme which is "student attitude", the responses that have been given by the respondents are "I'm lazy", "my sister wakes up late", "oversleeping", and "there is no schedule".

**DISCUSSION AND IMPLICATIONS OF THE STUDY**

The findings of this study have shown that a total of 142 students who have involved in this study (64.25%) have brought bags weighing between 6.01 kg to 9 kg to school. 44 students (19.91%) brought bags weighing between 9.01 kg – 12 kg to school, and 35 students (15.84%) brought bags weighing between 3 kg – 6 kg. This shows that majority of the students bring bags weighted between 6 kg and 9 kg everyday to school. Findings also shows that their heavy bags was caused by them bringing too many books and also bringing some unnecessary things inside their school bags.

Carrying these heavy school bags should be avoided because it will bring negative impact on the health of the body, body posture, muscle health, and spine of the child. According to Meenakshi et al. (2023), school children spend between 6 to 8 hours in school and normally they will need to bring their books, exercise books, workbooks, lunch box, water bottle, and sports material in their school bag. Carrying it in unplanned manner may increase school bag weight. The statement made Al-Saleem et al. (2016) that according to American Occupational Therapy Association, American Academy of Orthopedic Surgeons, and International Chiropractic Pediatric Association, the children should not carry a load more than 10% of their body weight really contradict with the reality that is happening in primary school especially. This recommendation should be taken a serious concern by Ministry of Education, teachers, parents, guardian, and the students themselves in order to help our school children having the negative impact of carrying heavy school bags to school.

From the results of this study, the researcher can conclude that the three main factors that have been identified in this study are (1) time management, (2) self-discipline, and (3) student attitude. These three factors can be overcome if parents or guardians play their role more effectively. This is because the results of this study show that the factors that cause these heavy bags can be easily overcome if the reasons are forgetting to check the timetable, missing the timetable, not having a timetable, the timetable being scribbled by the younger brother, problems wanting to check the timetable, sleeping early and so on. This is given serious attention by parents or guardians.

**CONCLUSION**

The school and the teachers have done what they should to help overcome the problem of heavy bags among schoolchildren, but if there is no monitoring at home, then the practice of checking the timetable and bringing books according to the timetable will be a difficult practice. The school and parents need to work together to help students with issues of time management, self-discipline, and student attitudes to deal with the issue of heavy school bags. This issue can also be one of the factors that affect the academic performance of the students and might also lead to absence from school. As a result of the findings of this study, the researcher can conclude that the role of parents or guardians is very important, especially for Level One students in primary school. If parents/guardians play their role more effectively, then the three main factors contributing to the issue of heavy bags in the school being studied will be successfully reduced.

As a conclusion, the findings from this study also suggest for future in-depth research regarding impact of heavy school bags on physical health of primary school children should be done to investigate the contributing factors and their association with physical health as well as signs of physical pains which will be risky for children in adulthood. In addition, through the findings from many past research, it can be concluded that heavy school bags are one of the contributing factors of physical pain especially upper back pain, shoulder, or/and neck pain among primary school students.

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