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## EDITORIAL

The Ghana Association of University Administrators (GAUA) as part of its mission to promote the advancement of higher education in Ghana and around the world provides policy alternatives for national development. This is done through research reports, policy analysis, reflective practice among others. Mindful of this, the National Executives adopted this Journal from GAUA University of Education, Winneba branch in 2019 to advance this cause. The sixth edition of the journal is thus, the “first” edition since the adoption and it also serves as a special edition to commemorate the 40th Anniversary of GAUA (1980-2020).

In this edition, Kwame Boakye, Joshua Addo, Eric Awotwe and Joyce Anastasia Sam did a comparative study of pension benefits between Ghana Universities’ Staff Superannuation (GUSSS) and Social Security and National Insurance Trust (SSNIT) Schemes. The writers advocated for the boards of GUSSS to educate their members on the superior financial retirement benefits offered by the scheme as compared to SSNIT and to review the pension rights under the GUSSS.

Again, George Kwadwo Anane, Elijah Ofori-Badu and Kwame Asante also examined ‘cut-off aggregates’ and academic performance of students in a public university in Ghana. The paper recommends that university managers must develop or review their admission policies and factor in more inclusive parameters for admitting students into universities, especially applicants from less-endowed schools.

The issue of work-life balance among Senior Female Administrators was examined by Rebecca Asiedu Owusu. She recommends for Ghanaian women in public career spaces to be provided with conducive working environments like flexible working hours, extended paid maternity leave, paid paternity leave and further stressed for Early Childhood Centres to be sited close to office environment.

In examining cleaners’ perspective of littering behaviour of students in a Ghanaian university context, Fidelis Z. Tang urged university management and student leaders to provide adequate waste bins on university campuses, especially at vantage points with notes to encourage cleanliness. This, he believes, will encourage the culture of cleanliness and shared responsibility in safeguarding the environment.

In promoting peace among student religious groups in public universities in Ghana, Samuel Marfo, Musah Halidu and John Yaw Akparep recommend that periodic education on religious tolerance should be carried out by amalgamated religious bodies and university managements to help deepen the understanding and knowledge of students about religious pluralism and the need for peaceful coexistence.

Investigating into communication challenges in a multi-campus university system in Ghana, Amatus Dinye, Emmanuel K. Boon and Job Asante advocated for the deployment of modern communication technologies to enable satellite campus administrators to communicate in real-time with their main campus and this should be part of a well-developed communication policy.



In a research into the assessment of governance challenges in higher education institutions, Charles Obeng-Sarpong, Daniel Buor and Paul Kwadwo Addo found out that external issues such as: funding, quality assurance, getting requisite academics, and internationalisation among others militate against Ghanaian universities. They therefore advanced an argument for the need to build the capacity of management and council members on quality assurance systems, effective governance and leadership.

Examining service delivery and satisfaction of students and its implications for educational administration, Regina Nuako, Kweku Appiah-Badu, Benjamin Boampong Owusu and Abraham Adusei observed that suggestions about areas of service delivery improvement provided by students to university management are often not addressed to their satisfaction. The writers recommend for the need for university management to work with students and design service improvement strategies to bring about student satisfaction.

Lastly, Samuel Marfo, Joshua Akpade and Halidu Musah investigated crash helmet and safety implications for student motorcyclists and postulate that relatively low patronage of the full-face helmets observed among students in their study requires periodic educational campaigns.

We are extremely grateful to all our contributors and to our dedicated reviewers.

Happy 40<sup>th</sup> Anniversary to GAUA!

Dr. Paul Kwadwo Addo  
**National Editor/Editor-in-Chief**  
**August 2020**



## Crash Helmet Types, Usage and Safety Implications for Student Motorcyclists in the Wa Municipality, Ghana

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### **Abstract**

*Across the globe, crash helmets are promoted as the most effective protective gear against head injuries and preventable deaths. Although crash helmets offer protection to users, their degree of protection vary according to the types, namely Full- face, Open- face or Half- face. Apparently, among crash helmet related studies that provide information on the relevance of helmets to riders, there is little information on helmet types and their safety implications in Ghana. Against this background, 78 student motorcyclists from three tertiary institutions and two key informants in the Wa Municipality were selected through quota and purposive sampling techniques in a qualitative research design. Primary data gathered through interviews revealed that 41% of student helmet users are less likely to suffer preventable deaths and injuries from motor crashes due to the use of the Full- face crash helmets which are deemed the most effective and globally recommended helmets. The relative low patronage of the Full- face helmets requires periodic educational campaigns by management and student leadership of tertiary institutions, the Motor Traffic and Transport Department of the Ghana Police Service and the Ghana National Road Safety Commission to orient student motorcyclists about the dangers of not wearing the Full-face helmets.*

**Key words:** *Safety, Motorcyclists, Crash Helmet, Road Transport, Tertiary Institution*

### **Introduction**

The use of motorcycle as a means of transport has become widespread both in developed and developing countries (Auto News, 2016; Turkson, Akple, Biscff, Dзокoto & Klomeagah, 2013). According to United Nations Commission for Europe (UNECE, 2016), motorcycles are often the primary, or most common mode of transport in low and low-middle income countries. Njiru (2014) writes that motorcycles provide ease and

affordable mobility to users in congested traffic and price hike conditions. Ironically, the proliferated use of motorcycles accompanied by the non-use or improper use of the safety gear, the crash helmet has increased the risk associated with motorcycle transport across the globe (Iddrisu, Salifu & Abubakari, 2017). While not all injuries associated with motorcycle accidents could be mitigated, research has shown that much of the injuries and costs associated with motorcycle crashes could be avoided with the use of helmets (Iddrisu et al., 2017).

UNECE (2016) has indicated that motorcyclists are about 26 times more prone to die in traffic crashes than drivers of passenger cars. As noted by Pan American Health Organization (PAHO, 2015) and the World Health Organization (WHO, 2014), pedestrians, motorcyclists, and cyclists are the most frequent victims of traffic fatalities because they lack physical protection, are less visible in traffic and often compete with fast-moving cars, buses and trucks. According to Akaateba and Amoh-Gyimah (2013), road traffic accidents are now a major public health concern in both developed and developing countries as they constitute a major cause of fatalities. It has been estimated that more than 20 million injuries and 1.17 million deaths occur in different parts of the world due to road accidents (Sharma & Saini, 2017). A pragmatic policy to make motorcycle mode of transport safe through the use of appropriate helmets is critical. Wearing an appropriate helmet and tying it firm to one's body can mean the difference between life and death. (Auto News, 2016; Padway, 2013).

Apparently, not all helmet users especially in developing countries use the appropriate helmets because of a number of reasons including availability and affordability (United Nations, 2016). In Nigeria for example, (Akande, 2009), evidence points to the fact that not all motorcyclists wear the right helmets. He indicated that some motorcyclists wear improvised things such as empty paint plastic keg or dried pumpkin shells as captured in Figure 1 below.



**Figure 1. An improvised paint plastic keg used as a crash helmet by a motorcyclist in Nigeria**

**Source: Akande (2009)**

Statistics on road accidents in the Wa Municipality, showed that the total reported cases of accidents over the eight year period from 2010 to 2017 in the Wa Municipality stood at 973 involving 310 commercial vehicles, 466 private vehicles and 733 motorbikes. The data showed that the total reported crashes fluctuate over the years. However, the number of crashes caused by motorbikes was not only higher than the other vehicle categories but also showed a general increasing trend (see table 1 below).

**Table 1: Crash Statistics in the Wa Municipality, Ghana (2010-2017)**

Year	Total Reported Cases	Number of vehicles		
		Commercial	Private	Motor Bike
2010	75	35	37	38
2011	129	45	62	101
2012	135	42	65	95
2013	150	39	80	113
2014	118	27	63	98
2015	101	27	48	85
2016	115	24	53	104
2017	150	71	58	99

**Source: MTTD Wa Central Police Command Motor Traffic Accident Data (2018)**

Going by GNRSC Report (2016) which indicated that only 42% of motorcyclists in Ghana use crash helmets, it could be premised that more of the road accident victims in the study locality would be motorcyclists, most especially, non-helmeted users as well as users of Open-face and Half-face helmets. This is because the essential parts of the head are either not protected or fully covered against head injuries in case of crashes (Motor Safety Foundation, 2017; WHO, 2016; 2014). As different helmets provide various degrees of safety against injuries and preventable deaths (McIntosh, Suratno, Haley & Troung, 2015), the researchers sought to explore the various types of helmets used by student motorcyclists in the Wa Municipality of Ghana. This is essential because among all the crash helmet related studies that provide information on the relevance and roles played by crash helmets in the Ghanaian situation (Musah, Marfo & Akpade 2018; Iddrisu et al., 2017; Akaateba, Yakubu & Akanbang, 2015; Tuffour & Appiagyei, 2014; Afukaar, Antwi & Ofosu-Amaah, 2010), little information exists as regards the types of crash helmets used by motorcyclists and their safety performance level in terms of road accidents. Tertiary institution graduates are the backbone of a country's manpower resources (both technical and managerial resources) (Odionye, 2014; Bawakyillenuo, Osei Akoto, Ahiadeke, Aryeetey & Agbe, 2013; Ahmat, 1980). Ensuring their safety is, therefore, critical. This study will equip key agencies responsible for road safety in general and management of tertiary students in particular to better understand and fashion out a more pragmatic policy that will help promote the use of the Full-face helmets among motorcyclists which is key to their safety.

### **Crash Helmets and Safety Standards**

Generally, a crash helmet is conceived as a protective gear worn by a motorcyclist to protect the head from injury in case of any accident. Crash helmets vary in terms of standards and quality. Regardless of the safety standards as required by different countries, WHO (2016) indicates that the Full-face, Open-face, and the Half-face are the three most commonly used types of crash helmets, each with different safety performance levels. Crash reports present that motorcyclists mostly suffer severe and fatal head and neck injuries, and these injuries are lessened when appropriate crash helmets are worn (Motor Safety Foundation, 2017).

#### ***Full-Face crash helmets***

The Full-face helmets compose of a chin guard that extends to a level directly below the lips (Yu, Chen, Chiu & Lin, 2011). They surround and support the jaw of the rider and provide a variety of sight through the vision port for upright and outer visions. They provide ultimate protection to the rider. Their efficacy stems from the fact that they provide full coverage in addition to impact protection to the rider.



**Figure 2:** Full-face crash helmet  
**Source:** Yu et al. (2011)

***Open-face crash helmets***

The Open-face helmets are of standard protection to the rider. They may not be very effective though they have visors to protect the rider's eyes. The rider's chin and jaw are, however, left unprotected, and the rider is not fully protected against head injuries in case of a crash (WHO, 2016; 2014).



**Figure 3:** Open-face crash helmet  
**Source:** WHO (2014; 2016)

***Three- Quarter or Half-face crash helmets***

According to Yu et al. (2011), the Three- Quarter helmets, also known as Half-face helmets, are cheaper and are the least among the three types as regards safety. These helmet types as noted by Yu et al. (2011), have a hard exterior shell and a comfortable inner lining. They rarely have visors to protect the eyes and hardly have chin and jaw guards to prevent injury during crashes. They are likely to have less retention systems as some may not have ear flaps.



**Figure 4:** Half-face crash helmet  
**Source:** Yu et al. (2011)

### **Theoretical consideration**

This paper is anchored in Schifter and Ajzen Reasoned/Responsible Action Theory (1985). The Reasoned Action Theory propounds that human behaviour is grounded in rational thought, and that there is a compatibility between thoughts (attitudes) and action (behaviour). According to Schifter and Ajzen's Reasoned/Responsible Action Theory (1985), these attitudes are shaped by subjective norms and beliefs.

This theory is considered very relevant to this study in that, it postulates humans as rational beings who hold certain principles that reflect in their actions. In this study, it is envisaged that students as rational beings hold certain safety principles which inform their choice of crash helmet types in using motorcycle as a means of transport. It could be premised that the manifestation of the use of a given helmet type by student motorcyclists (helmet usage behaviour), is a reflection of their general orientation about road safety, comfort and convenience.

### **Methodology**

#### **Research Sites**

This study covered three tertiary institutions in the Wa Municipality of Ghana namely , University for Development Studies (UDS), Wa Campus, University of Education, Winneba - Wa Center, and Wa Polytechnic. Wa Municipality is bordered by four important geographical locations : Burkina- Faso to the north and north west, Northern Region of Ghana to the south and Upper East Region to the east. Wa Municipality is dominated by road transport. Road network in the Municipality spans about 385km, comprising trunk tarred road (129km) and laterite roads (256km) (Wa Municipal Assembly Report, 2017). There are four major roads linking Kumasi and Tamale, Tumu and Leo, Lawra and Hamile, and Dorimon and Burkina-Faso. Although these roads are in use, their poor conditions such as limited pedestrian walks, absence of bus stop



pavements, absence of parking lots at the roads' shoulders, inadequate road signs, and poor drainage systems among others, make them prone to accidents (UK Essays, 2017).

The sharp increase in socio-economic activities coupled with other factors have increased preference for various means of transport, most especially, motorcycles. This mode of transport is patronised by all class of people ranging from merchants to corporate workers, and most especially, the ever-increasing student population (Akaateba et al., 2015). Consequently, there has been incidence of crashes in the Wa Municipality especially involving motorcycles (Wa Police Motor Traffic and Transport Department, 2018). This justifies the choice of students from the selected tertiary institutions, most of whom are motorcyclists, as respondents for this study. The selected institutions, therefore, served as appropriate sources of information for the study.

### **Research design**

Given the objective of the study, a qualitative research design was employed. The justification is that a case study is useful for learning more about a little known or poorly understood situation (Leedy & Ormrod, 2010). Crash helmet types, their usage and safety performance levels in terms of accidents demand in-depth understanding. The qualitative design enabled the researchers to gain much insight to the problem that necessitated the study.

### **Selection of Research Participants**

On the basis of the objective, the study intentionally targeted helmet users. Non-helmeted students were thus considered irrelevant to the study. A quota sampling technique was employed to select 78 helmet users comprising 55 males and 23 females across the three institutions (see Table 2 below).

**Table 2.** Summary of selected respondents

<b>Institution</b>	<b>Males</b>	<b>Females</b>	<b>Total</b>
UDS	24	10	34
UEW, Wa Center	13	5	18
Wa Polytechnic	18	8	26
MTTD	0	1	1
NRSC	1	0	1
<b>Total</b>	<b>56</b>	<b>24</b>	<b>80</b>

**Source:** Field Study (2018)

Quota sampling technique was required because there was no way of selecting the respondents using any systematic means by the researchers. As noted by Sarantakos

(2005), in a situation of that nature, quota sampling is the preferred technique. Besides the student respondents, two key informants involved in road safety promotion and enforcement, one each from the Upper West Regional Police MTTD and the National Road Safety Commission (NRSC) were purposely selected. This study was conducted between September 2018 and November 2018 and motivated by studies conducted by Iddrisu et al. (2017), NRSC (2016) and Akaateba et al. (2015) among others, which focused generally on crash helmet usage among motorcyclists.

### Data Collection Sources and Methods

This study utilised both primary and secondary sources of information. Primary information was generated from all the respondents through interviews with the aid of interview guides and an audio recording device. Each interview session averagely lasted 20 minutes. Primary data were supplemented with secondary information gathered through critical review of existing literature including journal articles, official websites and reports.

### Data Analysis

Twumasi (2001) indicates that data analysis involves critical examination of materials in order to understand their parts and their relationships and to discover their trends. As the study was qualitative in nature, data were analysed descriptively. The field notes were typed while the information recorded with audio device was transcribed. Data were then categorised into themes and integrated into the findings.

### Findings and Discussions

#### Crash helmet types used by the respondents

The study sought to explore the various types of crash helmets used by student helmet users. It came out that none of the respondents used an improvised helmet as found in Akande's (2009) study in Nigeria. It was found that the respondents used all the three most common helmet types as espoused by WHO (2016; 2014) and presented in Table 3 below.

**Table 3: Crash Helmet types used by respondents**

Gender	Full- Face	Open- Face	Half- Face	Total
Male	24(43.6%)	20(36.4%)	11(20.0%)	55(100.0%)
Female	8(34.8%)	11(47.8%)	4(17.4%)	23(100.0%)
Total	32(41.0%)	31(39.8.0%)	15(19.2%)	78(100.0%)

Source: Field Study, November, 2018

The study revealed that 32/78 respondents use the Full- face helmets which according to MSF (2017), WHO (2016; 2014), McIntosh et al (2015) and Yu et al. (2011), are the most effective and globally recommended crash helmets. What this suggests is that if this picture cuts across, a few helmet users in the selected institutions are more likely to be safe from preventable deaths and injuries during crashes.

With regard to the individual institutions, the study found that Full-face helmet users were less than 50% for both males and females in all the three institutions. Full-face helmet users in UDS were 11/24 for males and four 4/10 for females, UEW-Wa had 5/13 and 2/5 for males and females respectively, whilst Wa Polytechnic had 7/18 for males and 3/8 for females.

A common feature noticed was that across the selected institutions, Half-face helmet users represented the least which the study considers as very encouraging. Half-face helmet users in UDS were found to be 4/24 for males and 2/10 for females while UEW-Wa recorded 2/13 and 1/5 for males and females respectively. Wa Polytechnic recorded 4/18 for males and 2/8 for females. Table 4 below captures these results.

**Table 4: Institutional distribution of respondents' helmet type usage**

Helmet Type	UDS		UEW, Wa Center		Wa Polytechnic		Total
	Males	Females	Males	Females	Males	Females	
Full-face	11(45.8%)	4(40%)	5(38.4%)	2(40%)	7(38.9%)	3(37.5%)	32
Open-face	9(37.5%)	4(40%)	6(46.2%)	2(40%)	7(38.9%)	3(37.5%)	31
Half-face	4(16.7%)	2(20%)	2(15.4%)	1(20%)	4(22.2%)	2(25.0%)	15
<b>Total</b>	24(100%)	10(100%)	13(100%)	5(100%)	18(100%)	8(100%)	78

**Source: Field Study, 2018**

The challenge in this study was that in spite of the efforts made, the researchers could not get any statistics or empirical evidence from either the Police MTTD or the NRSC on the non-use of the Full-face helmets and how it contributes to the severity of injuries during accidents in the Wa Municipality to support the primary data. Even though the police had statistics on motorbikes involved in accidents, the defect in the data is that they had no information on the types of helmets worn by mortorcyclists involved in motor accidents. The reseachers could not, therefore, get any secondary data to prove whether or not the Full-face helmets are serving their intended purpose. However, on the basis of the works of Yu et al. (2016), McIntosh et al. (2015), as well as WHO (2016; 14), it could be suggested that more helmeted motorcyclists in the study locality are likely to face preventable deaths and injuries due to the non-use of the Full-face helmets which are deemed to offer higher protection to users during accidents.

In examining the factors that influence the use of the Full-face helmet types, respondents linked such helmets to full protection of the essential parts of the head against unintended

danger (all the 32 respondents) and their eyes against foreign bodies (23 respondents). This is what one respondent said during an interview in November, 2018:

*'Protecting your head with a crash helmet which leaves certain vital parts unprotected implies that you are not fully protected. In case of any motor crashes the exposed parts of the head could crash any object which could pose threat to your live. Of course, the Full-face helmet is much more costly than the other helmets but it is also much more safer in terms of accidents'.*

The views of the key informants on the safety role of the Full-face helmet types were not different from what were given by the respondents. The key informants stressed that the Full-face helmet users are more secured in case of death preventable accidents as essentially all the organs, notably, the eyes, the nose, the ears and the brain are protected. A key informant remarked:

*'Crash helmets usage generally improves road safety for road users such as cyclists and motorcyclists. However, the degree of safety they offer differs depending on the type of the helmet. A helmet which protects the entire head, a delicate part of the body guarantees some amount of safety for the user. The truth is that in enforcing helmet usage our focus has not been on the types. To us, once a rider wears a helmet which can protect him from danger in terms of road accidents, we are satisfied. I am not implying that all helmets guarantee the same level of safety in case of accidents. The reality is that in the absence of the Full-face helmet, users of the other types of helmets are more secured than non-helmet users. This is why we insist that all motorcyclists must wear crash helmets. If all motorcyclists, however, can acquire the Full-face helmets, it will be in their own interest and the nation as a whole' (A Key informant Interview, September 2018).*

Considering gender dynamics of the respondents, the study found that the number of males using the Full-face helmet – 24 out of 55 representing about 44% -slightly outnumbered that of females being 8 out of 23 representing about 35%. This probably could be attributed to the fact that the Full-face helmets cover the whole head which could distort the hair-do of the female users, hence, preventing most of them from using helmets as found by Musah et al. (2018) and Akaateba et al (2015). This follows that male helmet users generally are relatively less likely to suffer moderate and severe injuries in the event of motor crashes as opposed to female helmet users.

On the use of Open-face crash helmet type, the study found that 31 respondents patronised such category of helmet. Studies by the WHO (2016; 2014) suggested that Open-face crash helmet users are more likely to suffer chin and jaw related injuries than Full-face crash helmet users who may only suffer neck fractures and may not sustain jaw or chin related injuries because of the protection offered to such areas.

Among the third type, Half- face users were found to be 15 respondents. WHO (2016; 2014) indicates that riders who use the Half-face helmets are more likely to experience severe injuries and even death since these helmet types do not offer adequate protection and could even go off the user's head if not fastened well. It is, therefore, suggested that motorcycle crash related deaths and chin and jaw related injuries among student motorcyclists are likely to be slightly above 59% since only 32/78 helmet users use the Full- face type. Reiterating Schifter and Ajzen Reasoned/Responsible Action Theory (1985), the researchers probed further to establish the factors influencing the respondents' choices. The study revealed that the respondents' choices of Open- face and Half- face were influenced by the hot weather condition, poor visibility, difficulty in hearing and the variations in costs of helmets. Out of the combined 46 respondents who use Open- face and Half- face helmets, 26 reported that the Full-face crash helmets produce heat during the dry season and especially the daytime. A respondent remarked:

*'Safety is paramount and the use of the Full-face helmet would be ideal. But in such hot weather condition as we find ourselves in Wa, wearing such a helmet which covers every part of your head is quite discomforting. I prefer wearing the one that gives me a certain degree of safety and comfort'.*

The foregoing confirms Musah et al. (2018) which revealed that a number of riders do not wear crash helmets due to the hot weather condition prevailing in Wa.

Further, eleven (11) respondents who use either Open or Half- face crash helmets were of the view that the Full-face crash helmets provide maximum protection but their prices are much more costly. This category of crash helmet users indicated they use the Open and Half- face since that is what they could afford. This is what one respondent said:

*'You need to cut your coat according to your size. I had wanted to buy the Full-face helmet to ensure that at least every part of my head would be protected when riding. However, due to my financial predicament I had no choice than to buy the Open-face which is manageable'.*

The other reasons, which were less occurring given by the respondents, were poor visibility and difficulty in hearing. This attracted six responses. Users who subscribed to these reasons, have preference for Open and Half- face helmets since such helmet types meet their perceived expectations. Based on Schifter and Ajzen Reasoned/Responsible Action Theory, it could be premised that all helmet users in this study are conscious and have understood the safety implications for the use of a given helmet type in terms of crashes.

A baseline study conducted by the researchers among vendors of crash helmets in Wa Township during the study revealed that the prices of Full-face, Half-face and Open-face helmets averagely cost GHc120 (about US \$24 as at November, 2018), GHc80 (US \$16) and GHc70 (US \$14) respectively. This information supports the assertion made by a section of the respondents who indicated that they prefer either the Half-face or Open-

face due to the relatively high cost of the Full-face helmet. Inasmuch as this point may sound well as regards money, the overall cost of not using the Full-face helmets could be fatal for riders in terms of preventable deaths and injuries. Efforts should, therefore, be made to encourage the wearing of the Full-face helmets since they offer high safety performance.

### **Conclusion and Recommendations**

From Schifter and Ajzen (1985) Reasoned/Responsible Action perspective, this study has revealed that student motorcyclists from the selected institutions hold certain perceptions which influence their helmet type usage behaviour. The study found that student motorcyclists patronise all the three most common types of crash helmets as espoused by WHO (2016) namely, Full-face, Open-face and Half-face. It is found that none of the respondents use an improvised helmet. The study further revealed that only 32 (41%) of student motorcyclists are less likely to suffer preventable deaths and injuries from motor crashes due to the use of the Full-face crash helmets which are deemed as the most effective and globally recommended helmets. On the basis of the findings, it is suggested that:

The management and student leadership of tertiary institutions, the MTTD of the Ghana Police Service, GNRSC, the media and the Health Ministry should closely work together to orient student motorcyclists about the dangers of not wearing the Full-face helmets.

To ensure affordability and wide patronage at the institutional level, student leaders could negotiate with vendors of the Full-face helmets for flexible payment terms. This could encourage more student motorcyclists to purchase the Full-face crash helmets without difficulty. NGOs and philanthropists could assist in subsidizing the cost of the Full-Face helmets. This eventually may save the country from exorbitant medical cost of attending to victims of preventable deaths and injuries from motor accidents. Moreover, due to the hot weather condition at the study locality, a user-friendly full-face helmet could be considered by the government and other merchants.

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