OBSERVATION OF MOPED AND SCOOTER USE IN INNER BRISBANE
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INTRODUCTION
The past decade has seen an upward trend in motorcycle, scooter and moped use in Australia, with scooter and moped registrations increasing threefold from 2004 to 2006 [1]. There has been a coincident increase in crashes, with moped crashes increasing at a faster rate than motorcycle crashes [2]. In several Australian jurisdictions, including Queensland, 50cc moped use is legal if the rider holds a car licence, while larger capacity scooter riders require a motorcycle licence. Rider training and licensing systems vary across Australia, which may contribute to some variation in usage and crash rates of mopeds, scooters and motorcycles, collectively referred to here as powered two- and three-wheelers (PTWs).

Despite considerable research in the general area of motorcycle safety, little is known about moped and scooter use and associated crash risks in Australia. Scooters are not a defined category of vehicle in crash or registration data and travel data are almost non-existent. This paper presents data from the first study of a program of research aiming to improve understandings of moped and scooter safety issues in Brisbane, Queensland.

METHODS
Following the current Australian Design Rules (ADR) for an LA category vehicle, a ‘moped’ is defined here as a powered vehicle with two wheels, a maximum engine cylinder capacity of 50cc AND a maximum speed of 50km/h. In popular terminology a moped is usually considered a small motor scooter. While there is no official definition of a motor scooter in Australia or elsewhere, the characteristics of ‘step-through’ chassis design and automatic transmission typically set them apart from motorcycles [1]. Scooters exceeding the specifications for ‘moped’ (above) are officially categorised as LC (2 wheel) or LE (3 wheel) category motorcycles (Figure 1).

The study involved unobtrusive observation of powered two- and three-wheelers (PTWs) parked in Brisbane’s CBD motorcycle parking areas. Inner Brisbane was chosen due to a relatively high concentration of moped and scooter activity compared with other locations throughout Queensland. Variables recorded include make, model, engine capacity, vehicle type and year of manufacture. Data collection took place repeatedly on single weekdays during business hours in August 2008, February 2008 and August 2009. Data collection will be repeated in February 2010 and August 2010 to measure any observable changes.

RESULTS AND DISCUSSION
Approximately 500 PTWs were counted in each of three phases of the observation study to date. The sample is estimated to represent around 75% of all PTWs parked in the CBD on a weekday during business hours. Aggregate data for August 2008 (n=483), February 2009 (n=491) and August 2009 (n=527) show approximately 64% motorcycles, 22% mopeds and 14% scooters in CBD designated parking areas (Figure 2). No significant change in distribution occurred between phases one and three. The highest proportion of mopeds was observed at the Gardens Point CBD campus of Queensland University of Technology, likely reflecting the student population in that location. Motorcycles were older on average than scooters and mopeds, with mean ages of 9.5 and 3.5 years respectively. This age discrepancy may be due in part to the increased popularity of mopeds and scooters in recent years, but also their relatively short longevity compared with larger PTWs.

CONCLUSIONS
Mopeds and motor scooters represent over one third of all PTWs observed in the Brisbane CBD. The numbers of mopeds and scooters as a proportion of all PTWs observed confirms their presence as a significant road user group requiring further research.

REFERENCES