

Traffic psychology and road education in Tanzanian Secondary School

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'Ajali haina kinga' Accidents have no prevention

(Lamont, 2012)



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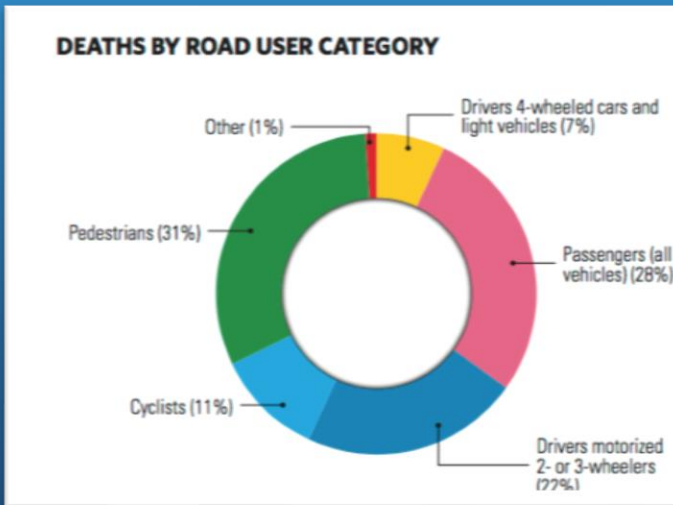


Background

Tanzania 2016

- 3,381 people were killed on the roads
- 9549 people were injured on the roads (Tanzania Traffic Police Force, 2016)

WHO, estimated that the real figure was more than four times as much (WHO, 2015)



➤ 32.9
Death Rate per 100,000 inhabitants (WHO, 2015)

What is the connection between the data and Tanzanian beliefs?



‘Fatalistic beliefs contribute to risky behaviour and consequent negative outcomes’

‘Fatalistic beliefs can have an adverse impact upon road crash prevention’

(Kouabenan, 1998)

(Peltzer et al., 2003)



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What role can a Traffic Psychologist play in road safety education in Tanzania?



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Study Area

Tanzania

- Arusha Region
- Longido District
- Suma Engikaret Secondary School



Participants and procedure

- January-February 2016 and November 2016
- 212 students
- 2 hours lesson with a Traffic Psychologist
- Pre and Post Static Hazard Perception Test (SHPT) to measure the efficacy of the lesson and Follow-Up



Problem! How to create the lesson?

- Student knowledge
- Methodology of the lesson



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Pre-Test

➤ Pre-Test: Questionnaire

PASSWORD	E28		
FORM	III		
AGE			
GENDER	MALE	FEMALE	
FROM	URBAN AREA	RURAL AREA	
I HAVE ALREADY TRIED TO DRIVE	A BICYCLE	YES	NO
	A PIKI-PIKI	YES	NO
	A CAR	YES	NO
	A LORRY/BUS	YES	NO
ENGLISH			
WE ARE GOING TO SHOW YOU A PICTURE ABOUT A ROAD SITUATION. PUT A CIRCLE (O) WHERE YOU THINK THERE IS A DANGER.			
KISWAILI			
TUTAANGALIA Picha zinazoelezea juu ya matukio ya barabarani. weka alama ya duara ambapo unadhani kuna hatari.			



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Pre-Test

- Pre-Test: Static Hazard Perception Test (Tränkle, 1990)



Results of the Pre-Test

	Students			Age	From		Bicycle		Piki-Piki		Car		Lorry	
	M	F	Tot		Urban	Rural	Y	N	Y	N	Y	N	Y	N
Form 1	30	26	56	13.98	31	25	40	16	3	53	3	53	0	56
Form 2	37	37	74	14.82	42	32	59	15	23	51	8	66	1	73
Form 3	19	20	39	13.85	25	14	33	6	4	35	4	35	0	39
Form 4	29	14	43	15.21	24	19	39	4	26	17	14	29	4	39
Total	115	97	212	15.27	122	90	171	41	56	156	29	183	5	207

38% of the female students have never tried to ride a bicycle



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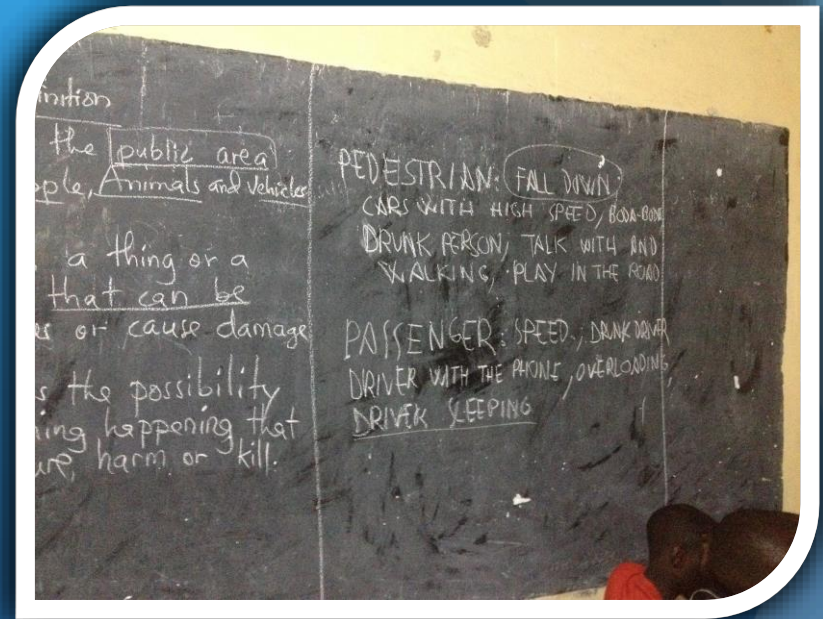
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Lesson in the class

The lesson was divided into five tasks:

- What is the road?
- What is a hazard?
- What is a danger?
- Examples of Hazards



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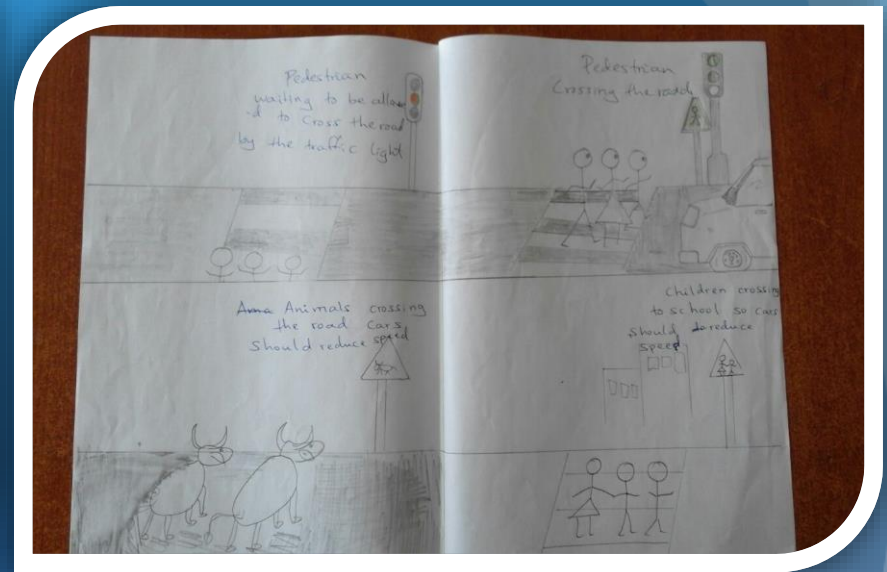
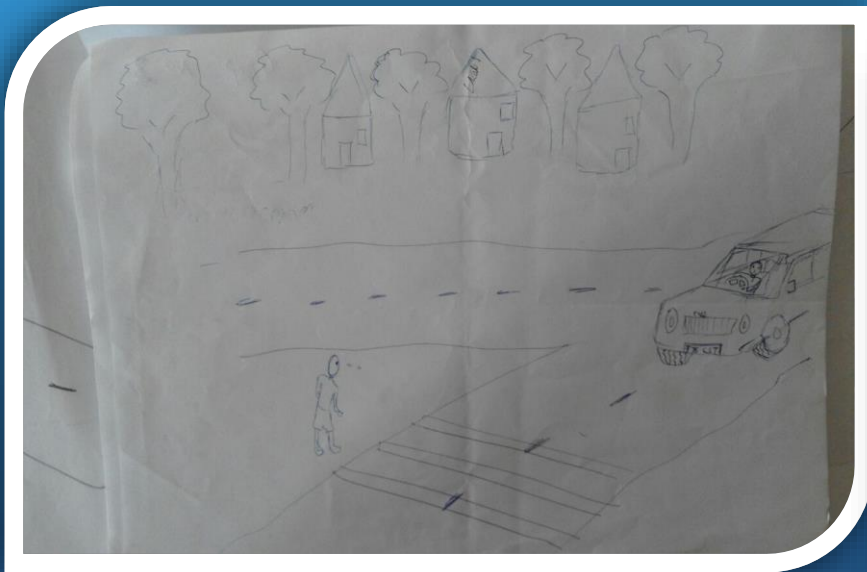
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Lesson in the class

➤ Project “The right way to cross the road”



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Post-Test

➤ Post-Test: Static Hazard Perception Test



➤ Follow-Up in November 2016: Static Hazard Perception Test



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Results

- Pre-post repeated measures analysis of variance (ANOVA) yield a principal effect of the training on hazard perception ($F(1,210) = 27.519, p < .001$).
- Follow-Up shows that the level of hazards perception at eight months after the training was lower than immediately after the training (repeated measures ANOVA: $F(1,210) = 11.700, p < .005$) but higher than before the training (repeated measures ANOVA: $F(1,210) = 85.685, p < .001$).

	Pre	Post	Fol.
Total	1.51	3.02	2.48



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Conclusion

Although there were limits in the research
the results suggest:



the Traffic Psychology
approach seemed to help
the students to think and
improve their road
knowledge



the Traffic Psychologist
seemed to help to
challenge their African
beliefs



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Future

- August 2018 Tinga Tinga Secondary School with 600 students to repeat the same project



Problems:

- Low level of education
- Different religions: Catholics, Muslims and practitioners of indigenous religions



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Publications

F.Biassoni, M.Ciceri, P.Perego (2017) “The impact of classroom training on road hazards perception in a Tanzanian Secondary School”. Safety and Security Engineering VII, WIT Transactions on The Built Environment, Vol 174, © 2018 WIT Press
www.witpress.com, ISSN 1743-3509 (Pages 393 - 401)



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Asante sana
Thank you
Grazie per l'attenzione

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