

P.A.R.T.Y. Program Evaluation 2006-2008



Prepared by:

Public Health Observatory
& Acquired Brain Injury
Outreach Team

October 2010

Acknowledgements

The P.A.R.T.Y Program is put on by the Acquired Brain Outreach Team, managed by Saskatchewan Health and funded by Saskatchewan Government Insurance (SGI).

We would like to thank Dalene Newton, ABI Outreach Team Program Manager; Rebecca Lehmann, P.A.R.T.Y. Program coordinator in rural SHR, and Dr. Jennifer Cushon, PHO program manager of research and evaluation, for their assistance in editing this report. We would also like to thank all of the students, teachers, volunteers and presenters that make the P.A.R.T.Y Program possible.

Suggested Citation

Kershaw T., Marko J & Gerwing, J. (2010). **P.A.R.T.Y. Program Evaluation 2006-2008**. Saskatoon: Saskatoon Health Region.

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Executive Summary

The P.A.R.T.Y. Program (Prevent Alcohol and Risk-related Trauma in Youth) is a licensed national one day in-hospital injury awareness and prevention program for grade ten students. Although there are P.A.R.T.Y. Programs in Canada, the United States and Australia, there are few evaluations that have been conducted on the effectiveness of the program. The purpose of our study was to see if there was a change in students' attitudes and knowledge around risk taking behaviour after participation in the P.A.R.T.Y. Program.

Students were given a questionnaire one week prior to participating in the program. The same questionnaire was given to students approximately one week after participation in the program. We used questionnaires from students who completed the program between November 2006 and June 2008 in Saskatoon Health Region. The questionnaire was a mix of attitudinal and knowledge-based questions, as well as five questions regarding participation in the program.

Seventeen schools (8 urban and 9 rural) participated in the program for a total of 408 returned and completed pre- and post-evaluations. After participating in the program, students' attitudes indicated they would significantly lessen risk taking behaviour. Students answered significantly more knowledge-based questions correctly after completion of the P.A.R.T.Y. Program. In general, students enjoyed participation in the P.A.R.T.Y. Program and took away key learnings.

This evaluation suggests that the P.A.R.T.Y. Program is beneficial in improving students' attitudes and knowledge on risk taking behaviour in the short-term. However, this evaluation was unable to determine whether there are long-lasting effects associated with the P.A.R.T.Y. Program. Changes to the evaluation such as using a control school, linking to actual driving records or using a longer follow-up period would increase the validity of the findings.

Table of Contents

Acknowledgements	2
Suggested Citation	2
Executive Summary.....	3
Table of Contents	4
Introduction.....	5
Methods.....	5
Results	7
Attitudinal Questions	7
Knowledge Questions	8
Qualitative Questions	9
Discussion	11
Limitations	11
Conclusions.....	12
References	13
Appendix A	14
Appendix B	17

INTRODUCTION

Saskatchewan has some of the highest injury rates of any province in Canada.¹ Collisions involving motor vehicles, bicycles, and pedestrians on public roadways, are a major cause of injury-related death and disability.¹ Two key factors that contribute to these injuries are alcohol use and age. Alcohol use continues to be the number one factor in fatal collisions in Saskatchewan.² In Saskatoon Health Region (SHR), the 15 to 24 age group has the highest mortality rate from transportation.¹

One program that is aimed at youth to reduce preventable injuries and deaths is the P.A.R.T.Y. (Prevent Alcohol and Risk-Related Trauma in Youth) Program. The P.A.R.T.Y. Program is a one-day, in-hospital injury awareness and prevention program developed in 1986 in Toronto, Canada. Joanne Banfield, an ER Nurse, helped establish the program because of the high number of trauma incidents presenting to the Emergency Department.³ There are now over 70 programs across Canada, as well as two in the United States and one in Australia. In Saskatchewan, approximately 30 communities run the program throughout the year.

The P.A.R.T.Y. Program is a full day of interactive education, aimed at promoting smart choices and safe risks in high school students. The program's message is to: "Drive Sober, Wear the Gear, Look First, Buckle Up and Get Trained." The program is designed to expose students to the tragic consequences of risk-taking behaviours, such as drinking alcohol and driving, riding in a vehicle without a seat belt, and not wearing a helmet when it is required. Students also learn basic anatomy and physiology, the effect that alcohol and drugs can have on decision making and the effects of injury.

The day follows the difficult journey of a trauma patient beginning with a mock crash scene and/or pre-hospital care through to rehabilitation. The program includes interactive presentations from the P.A.R.T.Y. Team including:

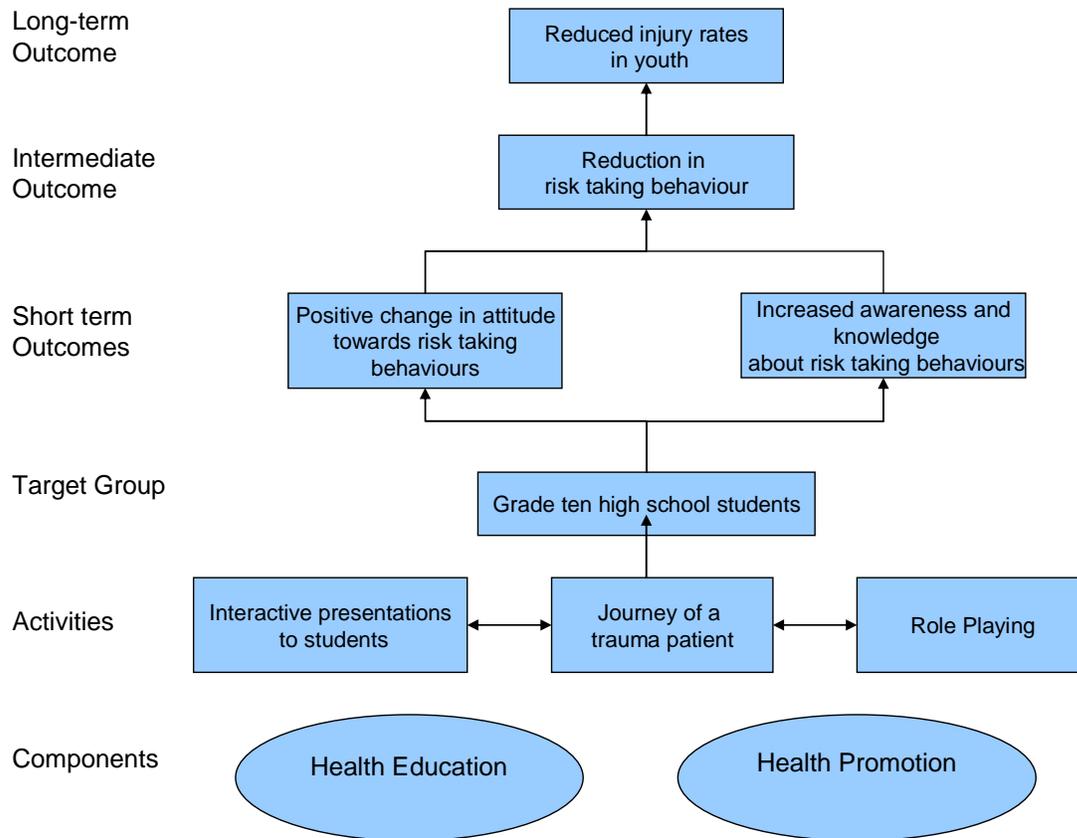
- Acquired Brain Injury Outreach Team – Education and Prevention Coordinator
- Emergency Medical Services – Paramedic
- Police Officers
- Emergency Room Staff
- Rehabilitation Therapist
- Addictions Counsellor
- Injury Survivor

METHODS

The evaluation of the Saskatoon Health Region P.A.R.T.Y. Program follows a quasi-experimental, pre-post design, with no control group. We evaluated the short-term outcomes of the program as depicted in the logic model seen in

Figure 1. Another study will be required to assess the intermediate and/or long-term outcomes depicted in the logic model.

Figure 1. P.A.R.T.Y. Program Logic Model, Saskatoon Health Region



Students included in the evaluation completed the P.A.R.T.Y Program between November 2006 and June 2008. In total, 8 urban and 9 rural schools participated in the P.A.R.T.Y Program during this time (Table 1). Students were in Grade 10 during their participation in the P.A.R.T.Y. Program. In urban schools, classes selected to participate in the program were determined by each individual school; typically, schools picked their health and wellness or physical education classes. In the rural schools, all grade 10 students were selected to participate due to the smaller number of students in the grade. Approximately 80 students participated in each P.A.R.T.Y. Program day.

Table 1. Schools participating in the P.A.R.T.Y Program

Urban Schools	Rural Schools
Bishop James Mahoney	Rosthern Junior College
Evan Hardy Collegiate	Waldheim
Centennial Collegiate	Hague
Marion Graham	AlmightyVoice

ED Feehan Catholic High School	WillowCree
Aden Bowman	Stobart High
Bedford Road	RosthernHigh
Holy Cross	Wakaw
	Cudworth

Students who participated in the P.A.R.T.Y. Program were given a questionnaire one week prior to participation in the program. The questionnaire was a mix of attitudinal questions on risk and their behaviour, as well as knowledge-based questions about injury and risk (see Appendix A for the pre-questionnaire). The students were then given the same survey approximately one week after participation in the program to see if their attitudes and/or knowledge had changed (see Appendix B for the post-questionnaire).

To ensure confidentiality, no names were placed on the questionnaires, only students' initials and birth date. These were then matched pre- and post- to ensure the same students' responses could be compared. The total number of students in this evaluation was 408. The number of students for all urban schools combined was 285, and the number of students for all rural schools combined was 123. No response rates were available as class lists were not obtained, so there was no way to determine how many students attended the program compared to how many students completed both surveys.

RESULTS

Attitudinal Questions

Descriptive statistics were computed on each attitudinal question for urban, rural and all schools combined (Table 1). The percent of ideal answers was calculated by taking the ideal, or non-risk taking, answer to each question. Ideal answers were based on yes/no responses. For example, the ideal response to question 1, "would you operate a motorized vehicle after drinking alcohol", would be no. However, some ideal answers were yes, such as "do you wear a seatbelt." Table 1 shows that for all schools combined, all of the post-test ideal percentage scores were higher compared to the pre-test time period.

In order to compare the pre-test and post-test scores statistically, paired sample t-tests were conducted on all attitudinal questions combined. There was a statistically significant (at the 95% level) increase in the percentage of ideal answers between pre- and post-tests for all schools combined. The same statistically significant results were found for all urban schools combined and for all rural schools combined.

Table 1. Results of the Attitudinal Questions for Urban, Rural and All schools combined.

	Urban Schools N = 285		Rural Schools N = 123		All Schools Combined N = 408	
	Pre- (% ideal)	Post- (% ideal)	Pre- (% ideal)	Post- (% ideal)	Pre- (% ideal)	Post- (% ideal)
1. Would you operate a motorized vehicle after drinking alcohol?	91.9	94.7	93.5	98.4	92.4	95.8
2. Would you get into a vehicle in which the driver has been drinking alcohol?	84.2	89.8	86.2	96.7	84.8	91.9
3. Do you wear a seatbelt?	86.9	94.3	91.8	93.5	88.4	94.1
4. Do you wear a helmet while driving a snowmobile, motorcycle or ATV?	61.9	79.2	63.6	76.4	62.5	78.4
5. Do you consider the following risk taking:						
a. Diving into water with an unknown depth	72.1	75	68.0	74.0	70.9	74.7
a b. Riding in the back of a pick up truck	38.4	44.6	37.2	52.5	38.1	46.9
c. Riding a bicycle without a helmet	29.6	42	31.9	44.3	30.3	42.7
d. Going to work/school Stoned	66.2	69.8	71.1	79.7	67.7	72.8
e. Passing another vehicle on an uphill climb	67.4	68.7	74.6	79.7	69.6	72.0
f. Speeding	51.1	60.4	57.4	73.0	53.0	64.2
g. Reckless skiing/snowboarding	47.8	59.8	58.5	66.7	51.1	61.9
h. Not wearing a seat belt	76.3	81.4	79.7	82.1	77.3	81.6

Knowledge questions

Descriptive statistics were computed on each knowledge question for urban, rural and all schools combined (Table 2). The percentage of students answering the questions correctly in the pre- and post-time periods are shown. For all questions, the percentage answered correctly increased between pre- and post-time periods. For example, injuries are the leading cause of death for youth age 13 to 19 years. For all schools combined, only 47% of students answered this

correctly in the pre-time period, with almost 75% answering correctly in the post-time period.

In order to compare the pre-test and post-test scores statistically, paired sample t-tests were conducted on all knowledge questions combined. There was a statistically significant (at the 95% level) increase in the percentage of correct answers between pre- and post-questions for all schools combined. The same statistically significant findings were found for all urban schools combined and rural schools combined.

Table 2. Results of the Knowledge Questions for Urban, Rural and All Schools Combined

	Urban Schools N = 285		Rural Schools N = 123		All Schools Combined N = 408	
	Pre- (% correct)	Post- (% correct)	Pre- (% correct)	Post- (% correct)	Pre- (% correct)	Post- (% correct)
1. When you suffer a permanent disability as a result of an unintentional injury, you will probably...	80.3	91.5	90.9	91.1	83.5	91.4
2. To buckle up means...	66.4	87.9	57.1	79.7	63.7	85.4
3. What is the leading cause of death of Canadian youth aged 13-19 years?	46.0	73.5	50.0	78.0	47.2	74.9
4. To drive sober means...	58.3	82.2	53.8	82.1	56.9	82.2
5. Most injuries to Canadian youth...	31.4	66.9	33.6	47.1	32.1	61.0
6. To Look First means...	68.9	87.0	63.6	81.1	67.3	85.3
7. When you experience a spinal cord or head injury...	75.1	79.8	73.9	81.0	74.8	80.1
8. To Wear the Gear means...	91.9	95.8	95.8	99.2	93	96.8
9. To Get Trained means...	79.7	88.1	80.7	94.2	80	89.9

Qualitative Questions

The qualitative portion of the post-test asked the students to answer five open-ended questions about their participation in the program. The results below come from five urban schools, with a total of 32 student responses included. Two of the questions were combined into one for analysis (Questions 4 and 5), as they covered similar topics. The most common responses and examples of student quotations were compiled, and are presented below.

1. What were the most important things you learned at P.A.R.T.Y?

1. Don't drink and drive
2. Wear a seatbelt
3. Wear a helmet
4. Think first and don't cross your "stupid line"

Quotes

"Your life could be permanently changed in seconds."

"When you are hurt everyone in your life is affected."

2. Which part of the day was most effective and why?

1. Injury survivor presentation
2. Emergency Room presentation
3. Addictions Presentation
4. Lunch with a disability

Quotes

"I liked the addictions presentation because I like talking about what happens to people our age and it makes me more aware of things."

"The ER presentation because we learned what people in car crashes go through."

"Emergency room because it scares you enough to not want to go there."

"The presentation at the end with the injury survivor because it showed how much his life has changed because of his decision."

3. How can this program be more effective for teenagers?

1. It is already good
2. More hands on activities
3. Have more teenagers see it
4. More injury survivor presentations

Quotes

"Nothing I loved it."

"I would say more hands on and not so much talking."

"Make sure the information we learned gets out to other teenagers."

4 & 5. What changes will you make in your lifestyle after hearing the information at P.A.R.T.Y.?

1. Tell others to be safe.
2. Teach others about the consequences of risky behaviour.
3. Tell people not to drink and drive.

Quotes

"Tell them about some of the things I learned and hopefully they will make smart choices."

“I can inform others about the program and let them know all the sessions we went to and how it changed my view on the decisions I make.”

“I can tell them about it. If they are going to do something stupid I can just tell them the potential consequences and maybe I could save a life.”

DISCUSSION

Although the P.A.R.T.Y Program is widely used, there are few evaluations that have been published on the effectiveness of the program. Evaluations that have been done tend to focus on what students liked or disliked about the program, rather than quantitative outcomes.^{3,4} For example, one evaluation conducted in Australia was largely qualitative, and the only pre-post comparison was in terms of students indicating whether or not they would drive after consuming alcohol at a party.³ In this Australian evaluation, only 68% of students at the post-test indicated that they would not drink at a party and then drive. In comparison, 95.8% of participants in Saskatoon Health Region’s P.A.R.T.Y Program said they would not drive after consuming alcohol. However, the Australian evaluation follow-up period was immediately after the program, which makes it difficult to compare the results with ours.

The only longitudinal study that could be found to date was conducted by Banfield et al. (2004) who compared the driving and infringement records of participants in Ontario who had completed the P.A.R.T.Y Program and those who had not. A ten year analysis found a 75% reduction in alcohol related offences, a 50% reduction in seat belt offences, and a 10% reduction in speeding offences among students who completed the program.^{3,5}

LIMITATIONS

Some limitations of the design of our evaluation should be noted, as they might influence the strength of the conclusion.

Comparison Group

There was no comparison group in this evaluation. One way to strengthen a quasi-experimental design is to have a comparison group of students who either did not participate in the intervention, or participated in another similar type of intervention. Comparisons between the P.A.R.T.Y students and the comparison group could then be analyzed to see if the P.A.R.T.Y. Program led to differences between these groups.

Follow-up Time Period

There was a relatively short time period between pre- and post-test questionnaires (about 2 weeks). In quasi-experimental studies, longer time periods between pre- and post-surveys (3 months, 6 months, or 1 year) serve to strengthen the study design. In the case of the P.A.R.T.Y. Program, it may be difficult to follow the students, especially if the student goes through the program between March and June. Six months after this time period would put the

students in Grade 11 and a new classroom. However, a longer follow-up period should be considered to strengthen the validity of findings.

Self-report data

Third, the outcomes of this evaluation are based on self-report data and do not measure observable driving outcomes. Therefore, it is difficult to say if the program actually results in changes in behaviour.

CONCLUSIONS

Despite the limitations, the evaluation the Saskatoon Health Region's P.A.R.T.Y. Program shows that overall, there were significant changes in both attitudes and knowledge in the pre- and post-time periods. Further modifications to the design of the evaluation should be done in the future to increase the validity of the findings. This could include: a one year follow up instead of two weeks; incorporating a control school; calculating response rates of the students who participated in the program, and/or measuring actual driving records to assess behaviour change.

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Appendix A Pre-Program Questionnaire



Pre-Program Questionnaire

In the boxes below, please fill in the last two letters of your **last** name, followed by your birth month and date (i.e., Smith born on **July 5th** becomes **TH0705**). **It is extremely important that you complete this section of the questionnaire.**

Example:

T	H	0	7	0	5
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Your information:

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Instructions: Indicate your response to the question with a check mark in the appropriate box.

Question	Yes	No	Maybe
1. Would you operate a motorized vehicle after drinking alcohol?			
2. Would you get into a vehicle in which the driver has been drinking alcohol?			
3. Do you wear a seatbelt?			
4. Do you wear a helmet while driving a snowmobile, motorcycle, or ATV?			
5. Which of the following situations do you consider to be risk taking?			
• Diving into water with an unknown depth.			
• Riding in the back of a pick-up truck.			
• Riding a bicycle without a helmet.			
• Going to work/school stoned.			
• Passing another vehicle on an uphill climb.			
• Speeding			
• Reckless skiing/snowboarding			

Instructions: For each of the following multiple-choice questions please indicate the most correct answer by circling the letter in front of your choice.

6. When you suffer a permanent disability as a result of an unintentional injury, you will probably ...
- a. have to change major aspects of your lifestyle
 - b. have changes in your relationships with your friends and family
 - c. have to re-establish yourself in your community after hospitalization
 - d. have to make changes to your physical environment
 - e. all of the above
7. To “Buckle Up” means ...
- a. to wear a seatbelt while riding or driving in a motor vehicle
 - b. to wear a bike helmet with the strap fastened while biking
 - c. to wear a life jacket or personal flotation device when on a boat
 - d. to fasten the climbing harness while rock climbing
 - e. all of the above
8. What is the leading cause of death of Canadian youth aged 13-19 years?
- a. Cancer
 - b. Violence
 - c. Extreme Sports
 - d. Injury
 - e. Poisoning
9. To “Drive Sober” means ...
- a. to not drink alcohol or do drugs before driving a car or snowmobile
 - b. to not drink alcohol or do drugs before operating a boat
 - c. to not be overtired while driving
 - d. to not be distracted by friends while driving
 - e. all of the above
10. Most injuries to Canadian youth ...
- a. only occur to those who engage in “extreme sports”
 - b. are “accidents” that cannot be prevented
 - c. are predictable and preventable
 - d. are totally avoidable if you behave safely
 - e. none of the above
11. To “Look First” means ...
- a. to make sure everything is safe before proceeding
 - b. to examine any situation that you are about to enter for potential risks
 - c. to check the depth of the water before diving in
 - d. to make sure that the ice is frozen solid before walking or driving over it
 - e. all of the above

12. When you experience a spinal cord or head injury ...
- a. you will either die or completely recover
 - b. your lifestyle may be permanently changed
 - c. you will only be affecting your own life
 - d. you will probably require a short rehabilitation period
 - e. none of the above
13. To “Wear the Gear” means ...
- a. to wear an eye shield on your hockey helmet
 - b. to wear a helmet when snowboarding
 - c. to wear a bicycle helmet when biking
 - d. to wear wrist guards or knee pads when inline skating
 - e. all of the above
14. To “Get Trained” means ...
- a. to listen to the experts before you try that activity
 - b. to take driver training before taking your driver’s license test
 - c. to learn from your friends or parents before trying a new activity
 - d. to receive professional instruction before attempting a new sport, job or activity
 - e. all of the above

Appendix B Post-Program Questionnaire



Post-Program Questionnaire

In the boxes below, please fill in the last two letters of your **last** name, followed by your birth month and date (i.e., Smith born on **July 5th** becomes **TH0705**). **It is extremely important that you complete this section of the questionnaire.**

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Instructions: Indicate your response to the question with a check mark in the appropriate box.

Question	Yes	No	Maybe
1. Would you operate a motorized vehicle after drinking alcohol?			
2. Would you get into a vehicle in which the driver has been drinking alcohol?			
3. Do you wear a seatbelt?			
4. Do you wear a helmet while driving a snowmobile, motorcycle, or ATV?			
5. Which of the following situations do you consider to be risk taking?			
• Diving into water with an unknown depth.			
• Riding in the back of a pick-up truck.			
• Riding a bicycle without a helmet.			
• Going to work/school stoned.			
• Passing another vehicle on an uphill climb.			
• Speeding			
• Reckless skiing/snowboarding			

Instructions: For each of the following multiple-choice questions please indicate the most correct answer by circling the letter in front of your choice.

6. When you suffer a permanent disability as a result of an unintentional injury, you will probably ...

- a. have to change major aspects of your lifestyle
- b. have changes in your relationships with your friends and family
- c. have to reestablish yourself in your community after hospitalization
- d. have to make changes to your physical environment
- e. all of the above

7. To “Buckle Up” means ...

- a. to wear a seatbelt while riding or driving in a motor vehicle
- b. to wear a bike helmet with the strap fastened while biking
- c. to wear a life jacket or personal flotation device when on a boat
- d. to fasten the climbing harness while rock climbing
- e. all of the above

8. What is the leading cause of death of Canadian youth aged 13-19 years ?

- a. Cancer
- b. Violence
- c. Extreme Sports
- d. Injury
- e. Poisoning

9. To “Drive Sober” means ...

- a. to not drink alcohol or do drugs before driving a car or snowmobile
- b. to not drink alcohol or do drugs before operating a boat
- c. to not be overtired while driving
- d. to not be distracted by friends while driving
- e. all of the above

10. Most injuries to Canadian youth ...

- a. only occur to those who engage in “extreme sports”
- b. are “accidents” that cannot be prevented
- c. are predictable and preventable
- d. are totally avoidable if you behave safely
- e. none of the above

11. To “Look First” means ...

- a. to make sure everything is safe before proceeding
- b. to examine any situation that you are about to enter for potential risks
- c. to check the depth of the water before diving in
- d. to make sure that the ice is frozen solid before walking or driving over it
- e. all of the above

12. When you experience a spinal cord or head injury ...
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 - b. to wear a helmet when snowboarding
 - c. to wear a bicycle helmet when biking
 - d. to wear wrist guards or knee pads when inline skating
 - e. all of the above
14. To “Get Trained” means ...
- a. to listen to the experts before you try that activity
 - b. to take driver training before taking your driver’s license test
 - c. to learn from your friends or parents before trying a new activity
 - d. to receive professional instruction before attempting a new sport, job or activity
 - e. all of the above
15. Describe three of the most important things you learned at PARTY.
- i)
 - ii)
 - iii)
16. Which part of the day was most effective and why?
17. How can this program be more effective for teenagers?
18. What is one thing you will do to protect yourself from an injury?
19. What is one thing you will do to help others protect themselves from an injury?

**Thank you for participating in the PARTY Program.
Your comments are important to us.**