

# South East Wales Local Authorities

## Review of the Monitoring and Evaluation of Megadrive

### Megadrive Evaluation

#### 1. Background:

- 1.1. On 30 October 2013 Cardiff Council were commissioned in accordance with a Quotation for Professional Services dated 20 09 13 as amended by subsequent e-mails.
- 1.2. The brief requires the review of the Monitoring and Evaluation Methods for three Road Safety Education, Training and Publicity (ETP) Projects that are currently used by the 10 Local Authorities comprising the Road Safety Group of Sewta. These three ETP projects are; Megadrive, Early Years Education and Junior Road Safety Officer.
- 1.3. In addition to the brief the evaluation will be conducted taking into account the Welsh Government's requirements for the "Evaluation of Road Safety ETP".
- 1.4. This report gives the outcome of the Evaluation of the Megadrive project.

#### 2. Existing Megadrive Evaluations:

- 2.1. Megadrive is undertaken by seven authorities and all but one have completed their programme for this year. Four of the former "Gwent Authorities", Blaenau Gwent, Caerphilly, Torfaen and Monmouthshire undertake this scheme on a sub-regional basis with a common syllabus. Newport responded that they use the same syllabus as the "Gwent Authorities" but as they had completed their programme for the year and had internal staff issues they made no further contribution. The other two that responded were Cardiff, and Rhondda Cynon Taff and the individual syllabuses are set out in Appendix I.
- 2.2. A report on the first ten years of Megadrive in Gwent was presented to the Road Safety Congress in 2005 which reported on their ongoing self evaluation. This reported that a majority of the participants considered that the course had increased their knowledge of the subject area. The reported figures being 63% of the female participants and 59% male participants.
- 2.3. A further report was done in 2010 for the schemes being run by Capita Symonds in Caerphilly, Blaenau Gwent, Monmouthshire and Torfaen, which showed that in most cases there was a beneficial effect on knowledge and attitudes with regard to the aims and objectives of Megadrive.
- 2.4. Responses back from the local authorities about the content of the programme are given in Appendix I and this shows that whilst there are local variations the basic model is the same and any evaluation of one course will be applicable to the others. Whilst there would be merit in standardising the Megadrive syllabus this cannot take into account local variations in the availability of resources.

# South East Wales Local Authorities

## Review of the Monitoring and Evaluation of Megadrive

### 3 Evaluation of Megadrive:

- 3.1. The aims and objectives of Megadrive currently used are given in Appendix I and these were used to guide the evaluation process.
- 3.2. These are summarised as follows and are used as the basis for the recommendations:-

#### Aims of Megadrive

To contribute to the lowering car occupant casualty numbers amongst young people through the delivery of a pre-driver education scheme to 16-17 year olds. This scheme has the aim of changing their attitude to risk and increasing their knowledge of in car safety and their responsibilities as drivers and passengers.

#### Objectives of Megadrive

To educate pre drivers about the key road safety issues relating to young drivers so that they are aware of the responsibilities of owning a car. To bring about a change their attitude towards road safety regarding the use of cars and in particular knowledge about the following issues:-

- Motoring law.
- Mobile phone use whilst driving
- Distraction and peer pressure
- Drinking or drug use effects on driving
- Wearing seatbelts and in car safety
- Who to get to teach you to drive
- Casualty and site management after a crash.

A session on buying a used car is delivered by Trading Standards where they are able provide this service. If they are unable to do so the key topics of buying a car, HPI checks, ownership documents and maintenance should be covered in other sessions.

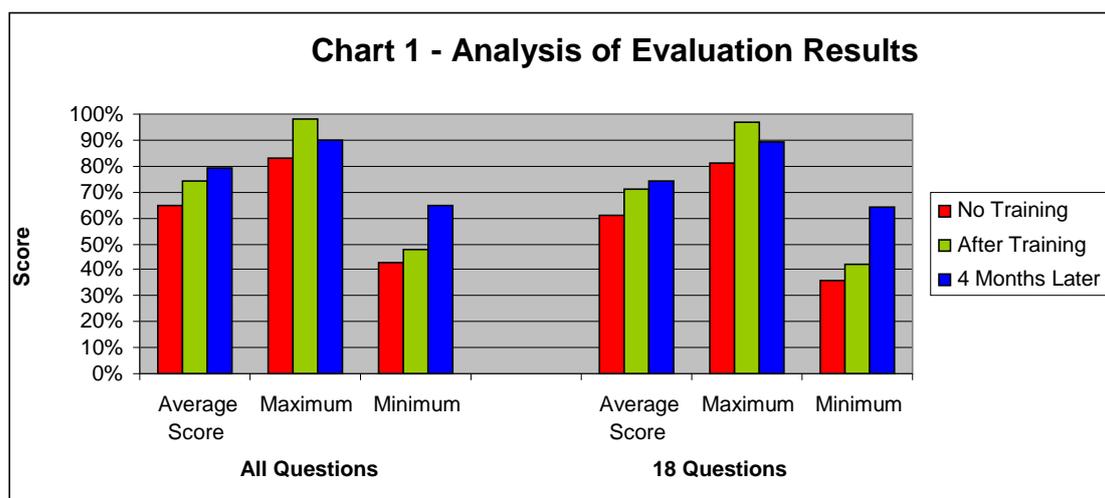
- 3.3. The E-value-it tool has been used to produce an evaluation questionnaire for Megadrive using the summative method.
- 3.4. A questionnaire consisting of 20 questions covering the topics covered in the Aims of Megadrive, including driving law, the effects of intoxication, driving behaviour and ownership. The questionnaire also asked the candidates to rate their knowledge of driving prior to the course.
- 3.5. The questionnaire has been issued to three groups of students: 19 who have not participated in Megadrive, 67 who had just completed Megadrive and 7 who had completed Megadrive 4 months previously and also acted as a pilot for the questionnaire.

## South East Wales Local Authorities Review of the Monitoring and Evaluation of Megadrive

- 3.6. The self evaluation of knowledge about driving prior to the course returned values of 2.7 for those who had not participated in Megadrive, 3.2 for those who had just completed training and 3.7 for those who had completed it 4 months previously. Although there is a slight trend from those who had not had any training to those who had training earlier in the year the values are similar and close to the neutral value of 3. This shows that there is not a significant bias in the knowledge of the candidates prior to participation in Megadrive.
- 3.7. In the largest group, immediately post course there were 10 (15%) that were not completed and these have been removed from the analysis.
- 3.8. In the group that had not had any training there were two questions which were answered correctly by everyone and so an analysis has been done where these were discounted from the results.

All questions	No Training	After Training	4 Months Later
Average Score	65%	74%	79%
Maximum	83%	98%	90%
Minimum	43%	48%	65%
18 questions			
Average Score	61%	71%	74%
Maximum	81%	97%	89%
Minimum	36%	42%	64%

Table 1 – Analysis of Evaluation Results



## South East Wales Local Authorities Review of the Monitoring and Evaluation of Megadrive

- 3.9. Although this shows that there is a fairly good knowledge of this subject by those who have not had the training, there is clear evidence that all the candidates learnt from the course and that this knowledge was retained over a reasonable period of time. The sample of 4 months after training is too small to determine if the higher average score was due to candidates learning more about the subject. However, what is clear is that attending Megadrive has increased the knowledge of the candidates about a wide range of issues related to driving which will affect their safety in the coming years.
- 3.10. The improvement is most marked in knowledge about buying a car, which is led by Trading Standards. Although this may seem to have a low importance in terms of casualty reduction it does have a significant role as young drivers are at a higher risk if they are in a vehicle that is dangerous due to mechanical defects or deficient repairs. However it is noted that some Megadrive courses do not cover this topic but this needs to be included.
- 3.11. Other areas with a large improvement were related to vehicle licensing and risk groups.
- 3.12. There were some questions where the before control group scored better than the main after group but this was on high scoring questions that will need to be reviewed for ongoing use of the questionnaire.
- 3.13. There were concerns that there are too many questions to get feed back in the available time which was exacerbated by some questions requiring multiple answers. Based on the analysis of the questions these have been revised and reduced to ten single answer questions plus an optional section relating to Trading Standards.

# South East Wales Local Authorities Review of the Monitoring and Evaluation of Megadrive

## 4. Summary.

- 4.1. The evaluation showed that candidates attending Megadrive courses improved their knowledge about driving related road safety and so the course meets its stated aims.
- 4.2. The evaluation carried out also showed that candidates still retained most of the knowledge after a significant amount of time.
- 4.3. The questions used in this evaluation exercise showed that there is a significant level of knowledge about these issues prior to training. However the fact that scores were higher for the post training group shows that this can be improved upon by attendance at the Megadrive course.
- 4.4. It was also reported that the questionnaire was too long and should be reduced to 15 questions. This also interacts with the comments about the Trading Standards issues not being common to all the Megadrive courses.

# South East Wales Local Authorities

## Review of the Monitoring and Evaluation of Megadrive

### 5 Recommendations

- 5.1. This revised questionnaire referred to in section 3.13 to be used with both students who will be offered Megadrive later in the year and those who completed it last year. This will provide both a pre-course benchmark and knowledge retention figures. An analysis of the results will establish if further changes are required and a similar process should be repeated annually.
- 5.2. A number of focus groups should be held as part of the trialling of the evaluation form. This will enable those who have not been on a Megadrive course to indicate what they are expecting it to involve and those who have been on the course to give their views about how it could be improved.
- 5.3. The officers organising Megadrive should then share their findings with all of Local Authorities in the South East Wales area and agree any significant changes to the syllabus. This would also be a forum to discuss and agree any changes to the evaluation questionnaire. The inclusion of the authorities which do not run Megadrive at this time will facilitate them providing this initiative in future years.
- 5.4. To ensure the questionnaire was about evaluating the Aims of the course there are no event feedback elements and this will be addressed as part of post course evaluation focus group exercise. However, it is considered that some user data should be collected and this should record gender and also the level of road user experience including regular cycling, motorcycling and any experience driving a car or other motor vehicle.
- 5.5. Information regarding the costs per head will need to be supplied by the LAs delivering Megadrive and the results discussed by those delivering the scheme to determine the most cost effective delivery. This exercise will also need to take into account any significant differences in the results of the questionnaire. This information is being collated for the financial years 2013-14 and 2014-15 and will be reported in an update to this report when available.
- 5.6. An annual report on the outcome of the evaluation and delivery will need to be prepared and be made available to all of the LAs in the South East Wales area and the Welsh Government.

# South East Wales Local Authorities

## Review of the Monitoring and Evaluation of Megadrive

### 6 Conclusions

- 6.1. Megadrive has a positive influence on the target audience's knowledge and reported attitudes which will support the aims of casualty reduction.
- 6.2. A meeting of officers who deliver Megadrive should be held to agree the syllabus, finalise the questionnaire and focus group questions and to share information on delivery costs and methods. The other LAs in the South East Wales area should be invited to attend and contribute.
- 6.3. The revised questionnaire must be used to gather information on the baseline, gained and retained knowledge of prospective, current and past participants. The questionnaire can be used at the beginning or end of the sessions, but not both.
- 6.4. The focus group agendas should be used to gain information on the perceived needs and the attitudes to the delivery of the course.
- 6.5. The analysis of the gained and retained knowledge plus the delivery costs and feedback need to be completed in time for the next bidding round and should be finalised at a meeting of the delivery officers and officers from the other LAs in the South East Wales area.

**South East Wales Local Authorities**  
**Review of the Monitoring and Evaluation of Megadrive**  
Appendix I – Megadrive Syllabus

**Aim of Megadrive**

**Blaenau Gwent, Caerphilly, Torfaen and Monmouthshire sub group**

To deliver and evaluate a pre driver education scheme, offering a series of road safety related educational workshops, encouraging attitude change to risk and responsibility, as a passenger and future driver. The main target group is 16-17 year olds and the delivery is via a local college. The change in attitude to risk will indirectly contribute to lowering car occupant casualty numbers amongst young people.

**Cardiff**

To make pre drivers aware of the responsibilities of owning a car.

**Rhondda Cynon Taff**

This Programme is delivered with the aim of informing the Students who are/about to learn to drive of their responsibilities as Drivers and make them aware of the dangers of Drink/Drugs/Drive, The Morning after, Speed, Seatbelts Use, and Mobile Phone Use.

**Objectives of Megadrive**

**Blaenau Gwent, Caerphilly, Torfaen and Monmouthshire sub group**

To give participants the opportunity to explore and possibly change their attitude towards road safety issues as a passenger and future driver, such as

- Mobile phone use whilst driving
- Drink Driving
- Wearing seatbelts
- Who to get to teach you to drive
- Dealing with an unconscious casualty after a crash.

**Cardiff**

To educate pre drivers in some of the key road safety issues relating to young drivers.

**Rhondda Cynon Taff**

The objectives are to enable the students to see a wider range of issues that may affect their ability to drive and control their car safely. Realise how inappropriate attitude and behaviour affects safety whilst driving their cars.

**Summary**

Although expressed differently and with different levels of detail, the aims and objectives are clearly the same and can be summarised as giving young people an understanding of the issues relating to road safety as it relates to the use of cars as either a new driver or a passenger with the intention that they will make better choices regarding these issues.

**South East Wales Local Authorities**  
**Review of the Monitoring and Evaluation of Megadrive**  
 Appendix I – Megadrive Syllabus

**Syllabus**

**Blaenau Gwent, Caerphilly, Torfaen and Monmouthshire sub group**

Element of session	Delivered by
Introduction questionnaire/evaluation (before and after workshops)	Road Safety Officer in attendance
Domino Effect (1hour session) Covers various Road Safety Issues – Seatbelt, Mobile Phones, drink driving, distraction etc	South Wales Fire & Rescue Service
Introduction to Driving (15 mins) Basic intro including – Cockpit checks Controls Moving Away Steering Changing Gear Stopping Reverse straight/bay parking Turn in road	ADIs
Drugs & Driving (15 mins) Discussion on what effects drugs can have on you and how these relate to driving.	Professional Local Drug Agency eg Drug Aid
Quiz & Hazard Perception (Focus ST) (15 mins) General Road Safety quiz. Use Xbox and TV in back of Focus to play a hazard awareness game.	South Wales Fire & Rescue Service
Highway Code (Theory questions) (15 mins) Participants work through questions on a specifically designed programme on a laptop. Given % of correct answers on completion.	Road Safety Officer in attendance
Total time	Three Hours

**South East Wales Local Authorities**  
**Review of the Monitoring and Evaluation of Megadrive**  
Appendix I – Megadrive Syllabus

**Cardiff**

Element of session	Delivered by
Buying a second hand car	Trading Standards
Choosing a Driving Instructor	ADI
Impairment, distraction and the law	South Wales Police
What happens in a collision	South Wales Fire and Rescue Service
Simulated driving test	Cardiff Road Safety Officers
Practical driving experience – Traffic free road layout with an ADI	ADI
<b>Total Time</b>	<b>Two Hours</b>

**Rhondda Cynon Taff**

Element of session	Delivered by
Presentation - How attitudes and behaviour affects young drivers eg speed, mobiles, seatbelts, Drink/Drugs/Drive etc – 30 min session	S.Wales Police Road Safety Manager
Alcohol Awareness – How large some measures are! Different alcohol Strengths! Morning after! 15 min session	RCT Road Safety Officers
Documents – needed for vehicle & driver for vehicle to be safe & lawful. 15min session	RCT Road Safety Officer
How attitudes and behaviour affects young drivers eg Speed, Mobiles, Drink/Drugs/Drive, Seatbelts etc 30 min session	S.Wales Fire Service Using the Ford Focus & the Y Van (Sept 2013 course)
30min driving session on basic driving skills	Approved Driving Instructors
<b>Total Time</b>	<b>Two Hours</b>

From the above it can be seen that the agencies involved are largely similar as are the topics covered.

Evaluation is currently being undertaken by most of the authorities that run Megadrive and there is an emphasis on learned outcomes rather than assessment of the delivery of the course or the facilities. However there has been a reduction in an assessment of the change in knowledge of candidates as this is difficult to do in a post event survey.

**South East Wales Local Authorities**  
**Review of the Monitoring and Evaluation of Megadrive**  
Appendix II – Analysis of Questionnaire Responses

**1. On a scale of 1 to 5 how would you rate your knowledge of driving prior to Megadrive?**

*This ranged from 2.7 to 3.7 and shows that the candidates had a similar initial level of knowledge about the topics covered by Megadrive.*

**2. Name three documents are required to legally drive a vehicle on the road?**

*This had scores of 82% and 98% which shows a 20% improvement after training.*

**3. What must you display on the car windscreen?**

*This had scores of 61% and 89% which shows a 62% improvement after training. However, with the forthcoming change in the law this question will become irrelevant and the following question will change.*

**4. Can you name the 2 places where you can obtain the item mentioned in question 3?**

*This had scores of 61% and 54% which shows a -11% deterioration after training. However the long term post training group scored 79% which is a 30% improvement. From a closer analysis of the responses it is clear that there was a misinterpretation of the question with answers like “the windscreen” or unclear responses like “the Tax Office”. This will need to be revised due to the abolition of the tax disc.*

**5. At what age can you start learning to drive on the road?**

*This has a 100% response rate from both the before and after group and need not be used in future questionnaires.*

**6. What effect can drugs and alcohol have on your ability to drive?**

*Although this had a high response of 79% in the trained group it was lower than the 95% in the untrained one. As with question 6 the score was reduced by some trivial answers which were only deemed worthy of a half point. This issue could be addressed by giving candidates a choice of answers, but that also has its drawbacks.*

**7. Is it only illegal drugs which can affect your ability to drive?**

*This also had a 100% response from both groups. It is welcome that the general message about the risks from prescription drugs is known by teenagers and the simple answer avoided the risk of vague responses.*

**South East Wales Local Authorities**  
**Review of the Monitoring and Evaluation of Megadrive**  
Appendix II – Analysis of Questionnaire Responses

**8. If you are caught driving whilst under the influence of alcohol or drugs what is the worst punishment can you expect?**

*The before group had a high score of 82% which meant that the reasonable score of 65% in the after group was lower. The main observation is that whilst many replies did not mention imprisonment in this answer they did so in response to the next one, so they clearly are aware of the possibility of that punishment. Also it is possible that for some people, fines or a driving ban might be considered worse than imprisonment.*

**9. How are drivers punished when they commit motoring offences?**

*This had a score of 53% for the untrained group who typically mentioned only one or two punishments and so were given a half score. In contrast the trained group gave much fuller answers and this gave a higher score of 64%, thus reversing the outcome of the previous question. In future only one of these questions should be used, or they should appear well away from each other.*

**10. How many pedals does a car with a manual gearbox have?**

*This had very high scores of 95% and 100% and so a different question will be needed to assess candidate's knowledge of vehicle design.*

**11. Name three pieces of safety equipment that is available in modern vehicles?**

*This also had similar scores for the before and after groups of 71% and 76%. Despite the question asking about modern vehicles, some responses referred to windscreen wipers which are safety equipment but are on all vehicles. As with question 10 this question will need to be revised.*

**12. How would you keep your windscreen clear in bad weather conditions?**

*The after group scored 23% better with a score of 62%. Most of the before group only mentioned windscreen wipers, which is a partial score. The After group responses included de-misters, de-icer and other similar methods and candidates who mentioned two or more, such as wipers and demister, obtained a full point.*

**13. How often should you check your mirrors whilst driving?**

*The scores for both groups were similar at 58% and 54%. Many of the answers were simplistic as in "frequently" or "all of the time" or prescriptive such as "every 5 to 7 seconds". Although these establish that they need to be checked at other times, they lacked the full response of before moving off or making any manoeuvres needed for a full point. This question will need to be re-worded to establish whether candidates are aware of "mirror, signal, manoeuvre".*

**South East Wales Local Authorities**  
**Review of the Monitoring and Evaluation of Megadrive**  
Appendix II – Analysis of Questionnaire Responses

**14. Which age range is most likely to be involved in road traffic incidents?**

*This showed a significantly higher score post training or 98% compared to 71% for untrained. However, most candidates in the untrained group were aware that young people were the high risk group but underestimated the length of the age range and so were awarded only half marks.*

**15. Which emergency services are involved when a road traffic incident occurs?**

*This had a high score from both the before and after training groups of 84% and 88% respectively showing that there is a high awareness that all of the main emergency services have a role to play in dealing with road traffic incidents.*

**16. If you were driving and you saw an emergency vehicle in your mirrors what action should you take?**

*There was a significant increase in the scores of candidates, from 76% to 83%, on this issue. Virtually all of the completed replies identified the need to pull over, but a greater percentage of those who had training mentioned the need to ensure that it was safe to do so and so that the emergency vehicle could pass.*

**17. What does a HPI check tell you about a car you are considering purchasing?**

*This was the most improved result from 13% to 59%. Many of the untrained, and some of the trained, candidates seemed to think this was either proof of current ownership or a record of road worthiness. Whilst this shows that the promotion of HPI has been successful in making people aware of the service they overestimate its value as not all insurance claims are recorded.*

**18. Which document gives information about the vehicle and previous ownership?**

*This showed a significant improvement between the untrained group at 47% and the trained group at 65%. Whilst there was significantly less confusion between the V5, “log book” or “registration certificate” and HPI some still existed. This question will be re-worded to clarify which document is being referred to.*

**19. If you were considering buying a car on finance what does APR mean and is a high figure better than a low one?**

*This question also showed that candidates had an improved knowledge post training with a rise from 39% to 53%. Post training scores would have been higher if candidates had given both parts to the answer. Making it an explicit two part question should improve the response rates.*

**South East Wales Local Authorities**  
**Review of the Monitoring and Evaluation of Megadrive**  
Appendix II – Analysis of Questionnaire Responses

**20. Give two reasons why it is best for a used car to have a service history?**

*This was the second highest improvement between untrained, 24%, and trained 50% candidates. The biggest failing was belief that the service history proved that the vehicle had not been stolen.*

**21 What are the main advantages of buying a used car from a dealer?**

*It was clear that many candidates in both groups misunderstood this referring to buying a new car. Although this has advantages, it was intended to refer to the benefits of buying from a company compared to a member of the public, or someone posing as a private seller. This will be clarified in the proposed questions.*

# Sewta Review of the Monitoring and Evaluation of Megadrive

## Appendix III – Proposed Updated Questionnaire

On a scale of 1 to 5 how would you rate your knowledge of driving prior to Megadrive?

1. Name a modern piece of safety equipment in cars that are just there to reduce the risk of a crash or reduce injury.
2. Why can incorrect tyre pressures affect the safety of a car?
3. How much would you drink before driving? a) Nothing : b) One Unit : c) Two Units : d) More than two units if not driving far : e) More if I feel OK
4. Why was it made illegal to drive and use a hand held mobile phone or other similar device?
5. Name three other things that can distract you whilst driving.
6. When would you drive above the speed limit (Tick all that apply)? a) To avoid being late : b) To impress friends : c) To pass another vehicle : d) In an emergency : e) When the roads are clear
7. What is the maximum penalty the courts can give a driver who is caught driving whilst under the influence of alcohol or drugs?
8. When do you NOT have to wear a seat belt (Tick all that apply)? a) If the car has airbags : b) If they are all in use by other people : c) If you have a medical exemption : d) In a vintage car : e) In an emergency
9. Which age range is most likely to be involved in road traffic incidents?
10. If you were driving and you saw an emergency vehicle in your mirrors what action should you take?

### OPTIONAL SECTION ON CAR BUYING

- A. Name the document that is proof of current and past ownership of a vehicle?
- B. What does a HPI check tell you about a car you are considering purchasing?
- C. What does a service history tell you about a used car?

# Sewta Review of the Monitoring and Evaluation of Megadrive

## Appendix III – Proposed Updated Questionnaire

### **Post Megadrive Focus Group Agenda**

General views on:-

How well the event was organised and the quality of the venue.

How relevant the event has been to them.

What parts of the event were of limited value.

How important was the driving element as part of the course.

Do they consider that any topics were missing or skipped over.

Any other things they want to raise.

### **Pre Megadrive Focus Group Agenda.**

Ask if they know about Megadrive and if so where from.

Describe the Megadrive course along with its Aims.

Ask what topics they would expect the workshops to cover along with reasons.

Ask what they would not want to be included.

Ask how important the driving experience is to them in making them want to come.

### **User Monitoring**

#### By observation

Number

Male \_\_\_\_\_ Female \_\_\_\_\_

#### By “hands up survey”

Number

Regular Cyclists \_\_\_\_\_ Motorbike CBT \_\_\_\_\_

Motorbike Licence \_\_\_\_\_ Car Provisional \_\_\_\_\_

Car Full Licence \_\_\_\_\_ Other experience \_\_\_\_\_

# Sewta Review of the Monitoring and Evaluation of Megadrive

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