Author(s): Passmore, Jonathan & Velez, Maria João

Title: Coaching Fleet drivers – a randomized controlled trial (RCT) of 'short coaching' interventions to improve driver safety in fleet drivers.

Year of publication: 2012

Journal / Source: *The Coaching Psychologist*.

Citation: Passmore, J. & Velez, M.J. (2012). Coaching Fleet drivers – a randomized controlled trial (RCT) of 'short coaching' interventions to improve driver safety in fleet drivers. *The Coaching Psychologist*. 8(1), 20-26.

Coaching Fleet drivers – a randomized controlled trial (RCT) of 'short coaching' interventions to improve driver safety in fleet drivers

Abstract

The issue of coaching as a potential learning methodology has been highlighted by a European Union task force (HERMES, 2010) and has been the subject of a number of research papers over the past two years. This paper reports the results from a RCT study of coaching with fleet drivers based on a sample of 327 participants, and drawing on results from insurance claims, company fleet car records on mileage and driving convictions. The results indicate there was no statistically significant difference between the intervention (coaching) group and the control (instruction) group. The paper considers why this may be the case and contrasts the results with other papers where statistically significant results are reported in coaching and driving research.

Key words

Coaching and driver development, randomized control trial, RCT, driver safety, road traffic accident, fleet drivers, GDE matrix.

Introduction

Coaching has emerged as an area of interest to UK driving. This interest follows work by practitioners such as John Whitmore who has argued for over two decades that using a coaching approach could contribute to improved learner outcomes (Whitmore, 2010). The European Union has also commissioned a number of studies into learner driver methods and coaching as a learning methodology (MERIT, 2004; HERMES, 2010). These practitioner led task forces have tended to focus on the potential of the Socratic approach to helping learners to develop enhanced self-awareness and greater personal responsibility. In the past, driver training has tended to focus on skills acquisition, but more recently it has been noted that drivers rarely crash due solely to car control skills. Instead other psychological factors play an important role, such as fatigue, perception of risk, judgment and driver values. This has led to a categorization of driver training into four categories ranging from basic vehicle control to personal characteristics (Hattaka, Keskinen, Gregerson, Glad, & Hernetkoski, 2002).

Passmore, J. & Velez, M.J. (2012). Coaching Fleet drivers – a randomized controlled trial (RCT) of 'short coaching' interventions to improve driver safety in fleet drivers. *The Coaching Psychologist*. 8(1), 20-26.

Table 1: GDE matrix: Goals for Driver Education

		Essential elements of driver training		
		Knowledge and skills	Risk-increasing factors	Self-evaluation
Hierarchical levels of driver behaviour	4. Personal characteristics, ambitions and competencies	Lifestyle Peer group norms Personal values and norms Etc	Sensation seeking Adapting to social pressure	Impulse control Risky tendencies Personal risky characteristics
	3. Trip-related context and considerations	Choice of route Estimated driving time Estimated urgency of the trip	Physiological condition of driver Social context and company in vehicle	Personal skills with regard to planning Typical risky motives when driving
	2. Mastery of traffic situations	Application of traffic rules Observation and use of signals Anticipation of events	Vulnerable road users Breaking traffic rules/ unpredictable behaviour Information overload Difficult (road) conditions	Strengths and weaknesses regarding driving skills in traffic Personal driving style
	1. Basic vehicle control	Control of direction and position of car Technical aspects of the vehicle	Improper use of seatbelt, headrest, sitting position Under-pressure tyres	Strengths and weaknesses of basic vehicle control

(adapted from Hatakka et al., 2002)

The UK approach to driver training has tended to focus on the mechanical skills, road signs and interaction with other road users, in contrast to higher order skills (for a fully discussion see Passmore & Mortimer, 2011). Since the HERMES project there has been a growing interest in the potential of coaching as a learning methodology. The HERMES project, while encouraging a shift towards coaching, failed to offer evidence of the benefits of coaching in comparison with the traditional instruction method.

In response, a number of research projects were commissioned to explore this new area of practice. This study is one of a series of research studies to explore coaching as a learning method in the environment; its potential as an effective and efficient learning method and its limitations as a tool to facilitate behaviour change.

Passmore, J. & Velez, M.J. (2012). Coaching Fleet drivers – a randomized controlled trial (RCT) of 'short coaching' interventions to improve driver safety in fleet drivers. *The Coaching Psychologist*. 8(1), 20-26.

The role of learning within coaching and specifically driver development has been discussed in the previous papers (see for example Passmore & Ur-Rehman (In Press) and Passmore, & Mortimer, 2011). The authors draw on Kolb's learning cycle and suggest that coaching provides an opportunity for meta or double loop learning. This occurs as a result of learning from the initial experience and double or meta learning occuring during the enhanced reflection generated by the coach's questions about the drive, for example the criteria used by the driver in making a decision to make a right turn in busy traffic. Further work however is needed to test this hypothesis.

In previous papers, the research team identified that coaching for novices was seen as a useful tool by instructors, offering the opportunity to build a learning relationship and to meet the personal learning objectives of the learner. For novice drivers, the use of coaching as a learning methodology was also a more positive experience for learners than ADI's use of the instructional approach (Passmore & Mortimer, 2011). This finding has been echoed in work with other groups.

Work has also been undertaken to review the impact of coaching in high challenge learning environments – such as the police and army. In the former of these a qualitative study reviewed police advanced (blue lights) driver training within the Metropolitan Police Service (MPS) (Passmore & Townsend, In Press). This study highlighted similar results. Both learners and instructors preferred the use of coaching as a learning method, as it allowed learning to take a more person-centered approach. This work with the MPS has led to the coaching approach being adopted by ACPO (Association for Chief Police Offices) and the training of instructors from some twenty English, Welsh and Scottish Police services by members of the research team. A detailed analysis is due to be completed in Autumn/Winter 2012.

The final of the three studies reported to date was with the British Army LGV drivers (heavy good vehicles). This RCT study reviewed the efficiency and effectiveness of coaching as a learning methodology in comparison with traditional instruction. The results for both pass rates and learning times showed that coaching, when compared with a comparable intervention (instruction), led to statistically significant improvements in pass rates and statistically significant reductions in learning time for learner's acquiring Category C and C+E licenses (LGV - heavy good vehicle licenses) (Passmore & Rehman, In Press).

This study aimed to explore the development of fleet drivers and how coaching may be used as a method to help them reduce accident rates. The project was conducted in partnership with a UK insurance company and a UK fleet operator which leases vehicles to individuals and organizations. Fleet drivers, by definition use their vehicles as a major part of their working role, performing roles such as 'delivery driver', 'sales manager' and 'site inspector'. In some cases the individuals would also have access to the vehicle for private use. For fleet drivers, road traffic accidents are one of the largest professional risks they face at work. While the accident rates are lower than for the UK's most at risk group driving group, young people aged 17-25 (where death from a road traffic accident is the most common cause of death), there remains a health and safety at work risk which employers need to mitigate.

Method

Participants

Coaches

A group of twelve Approved Driving Instructors (ADI's) who worked as associates for the insurance company providing driver refresher courses were identified by the insurance company (intervention group) and matched against a similar group of ADI's (control group). A random process was used to select individuals from the large pool of ADI's used by the insurance company, with the group of 24 being divided in half. The intervention group received five days of coach training, based on a programme developed by the authors. The five day programme included core coaching skills in questioning, listening, summaries and reflections, training in three coaching models; humanistic, behavioural and cognitive behavioural. Specifically individuals learned about adult learning, emotional intelligence, interpersonal skills to facilitate building a relationship with learners, Roger's necessary and sufficient conditions (1957) the GROW model, the ABC model from CBC and working with difference. The course content is similar to the Institute of Leadership & Management level 7 programme (ILM 2011). The programme was completed in two blocks; three days and two days. The course did not contain an assessment, although participants did demonstrate the skills in practice sessions throughout the course.

Drivers (coachees)

A total of 327 received one refreshment instruction or coaching session during the intervention period. The majority of the participants were men (91%). Of the 327 participants, 163 participants received the coaching intervention from one of the ADI coach's. The remaining 164 received a refresher session through an ADI using a traditional instruction lead approach. In the Intervention (coaching) group the majority of participants were men (92%), the average age was 40 years old and the average miles per driver were 29,907. In the Control (instruction) group the majority of drivers in this group were also men (90%), the average age was 44 and the average miles per driver were 28,341.

Procedure

Under the Refresher scheme, provided by the insurance company, the ADI arranges to meet the fleet driver for an annual observation of their driving and short input / feedback discussion. The whole session lasted between 1 and 3 hours, this includes driving and deliveries. Due to the nature of the scheme, there was only one (coaching / instruction) session provided per driver. The content of each session was not monitored, but those in the intervention group were encouraged to use the skills they had acquired on the course.

Following the training, each learner driver was placed in one of the two groups on a random basis allocated A-B-A-B by the insurance company; one group with instructors, one group with coaches. The individual's driving record was then monitored for speeding convictions and accidents for a 12 month period after the intervention. The data was collated and supplied by

the insurance company to the researchers, on a spreadsheet and did not contain any personal data which could lead to individuals being identified.
The data was analyzed by different members of the research team than those involved in the training delivery.

Results

The Intervention (coaching) group and the Control (instruction) group reported the same average speed conviction (M=1.91, SE= .29; M=1.91, SE=.28, respectively). We conducted an independent-samples t-test to compare the levels of speeding conviction in both groups. The results suggested that there were no significant differences between the Intervention (coaching) group and the Control (instruction) group (t (324.5) = -.211; p>.05) in speeding conviction.

Concerning previous occurrence or non-occurrence of accidents, both groups also reported similar average previous occurrence of accidents (M=1.69, SE=.46; M=1.71, SE=.45, respectively). We conducted an independent-samples t-test to compare the previous occurrence of accidents in both groups. The results suggested that there were no significant differences between the Intervention (coaching) group and the Control (instruction) group (t (324.8) = -398; p>.05) in previous occurrence of accidents.

Discussion

When compared with published general RCT coaching studies which have shown statically significant results (see Grant et al., 2011 for a full review of coaching research papers) and the statically significant results of the LGV British Army study (Passmore & Rehman, In Press), the results on first sight are surprising. However, the reasons for this are worth considering, when coaching research is beginning to build an evidence base of positive effect.

A review of the wider RCT literature reveals that non-statistically significant results are rarely published. This is known as the 'bottom draw effect'. Two reasons may explain this reluctance. Firstly, researchers don't wish to share the results of their 'unsuccessful' experiments. Instead they rather move on to focus on what has worked. Secondly, journal editors have a preference (not surprisingly) for studies which show new things that work, rather than things that don't work or don't work in that particular content. As a result, peer review papers have little evidence which helps to show the boundaries of effect and researchers need to search dissertation abstracts for papers which demonstrate the boundaries of their interventions, and example of this in coaching is Miller's paper on manager coaching (Miller, 1990). In considering this paper we took the view that the recent trend of publishing successful RCT studies does not reveal the whole picture. Coaching is not a magic ingredient which can be added for positive effect. Situational factors including the level of training, the quality of the relationship, the methodology used and exposure to the dose (number of hours of coaching) and other factors are likely to influence the result. We would like to see wider discussion of these issues.

In our own study we have considered a number of possible explanations for the outcome. One explanation is that the training differed in some way. In each of the four studies the same training was offered, with broadly similar content and learning periods. The training content was based on post-graduate level material draw from a previous delivered coaching

psychology programme has parallels with the ILM level 7 syllabus. As a result, we dismissed this explanation.

A second explanation was the group of drivers or learners were different from other studies. While the learners were different from novices, their profile (as professional drivers) was similar to the drivers attending the police and army courses. One difference however was that the drivers in the police and army studies were undertaking formal training at the end of which they would be assessed by a pass or fail assessment. In the fleet driver study there was no pass or fail assessment and the driving was not a course, but an observation. We wonder in what way assessment and attendance on a formal training course may have impacted on the driver's motivation in this study.

A third explanation was the coaching methodologies taught. The programme content focused on behavioural and cognitive behavioural coaching models. General research on behaviour change suggests that changing addicted or habituated behaviors is at best difficult, as individuals are less likely to be in a state ready for making a change without advanced preparation work (Miller & Rollnick, 2002). Wider research in behaviour change has indicated the value of motivational interviewing (MI) over behavioural and cognitive behavioural interventions, as MI takes specific account on the individual's readiness to change and works with their ambivalence to change (Miller & Rollnick, 2002). Motivational interviewing seeks to build intrinsic motivation to change and supports individuals through a series of change stages with the coach taking account of the coachee's language to decide on when to move to the next stage (for a fully discussion of MI in coaching see Anstiss & Passmore, 2012). We believe that given the nature of the learners, an alternative model could be explored given the research evidence on outcomes for MI in environments where attendance is not voluntary and there is no pass or fail assessment, such as training courses for penalty drivers.

A fourth explanatory factor may be the length of the training. For the police and army studies, the driver training period was typically five to ten days (30-70 hours), depending on the qualification and for novice drivers a similar period spend over several months usually at one or two hours a week. In the fleet driver study the intervention agreed with the companies was a 'short observation and feedback'. This was usually between one hour to three hours, depending on the route and situation. We question whether such a short expose to the intervention can lead to behaviour change. Again wider research evidence (for example Miller & Rollnick, 2002 using MI) suggests that while MI leads to quicker successful outcomes than other popular interventions, the number of sessions is significantly larger than in this study, as is the number of hours available for clients to explore their ambivalence, prepare a plan and be supported in their change.

A fifth factor was whether the ADI instructors in the intervention group used coaching or reverted to their old instruction based approach. In none of the projects was individual sessions monitored, so it is impossible to conclude that behaviours of ADI's changed as a result of the training. However other studies undertaken by this research tam have shown statistically significant results which we have attributed to the impact of the change from an instruction style to a coaching style. We thus believe that at least some change is likely by instructors in this and the other studies. Further research is needed to explore this aspect.

A final factor, associated with the limited time, was the impact on the quality of the relationship. There is wide evidence from counseling (see for example McKenna & Davies, 2009 for a wider discussion) that the relationship is a significant factor effecting outcomes. In coaching the relationship has also been the subject of considerable debate (see for example Palmer & McDowall, 2010 for a series of chapters on relationship issues within coaching) and is now recognized as a key (if not critical factor) in positive outcomes. In this study little time was available to build a relationship before the coaching work begun. This may have had a factor, and mitigates against the use of coaching for one off, short interventions to address complex behaviours such as driving.

Other coaching studies have found insignificant results when coaching has been applied by managers in time pressured situation and limited training offered to help embed these skills (Miller, 1990; Deviney, 1994). Sawczuk (1990) in a study of coaching use by managers found that managers did not provide as much time for interactions, and resorted to an instructional approach over coaching due to time pressures. While in this study there is no evidence to suggest that ADI's changed their style back to an instruction approach when delivering the short observation/ feedback, this could have been the case and may have resulted from the time pressure and one off nature of the intervention.

In summary, we suggest the explanation for these results may be a combination of these factors. Most importantly the limited exposure to coaching by fleet drivers, time pressured coaches who may have defaulted to instructional approaches and participants (learners) who had no stake in making a change in their behaviour. While evidence is building that coaching is an effective intervention how, by whom and taking account of the individuals readiness for change are all important factors to consider.

Conclusions

This short paper reports the results from a RCT based coaching driver study, which found no significant differences in driver safety, comparing coaching and instruction. The results however, provide evidence that coaching is as safe as the instructional approach. The paper also contrast these results with other coaching and coaching driving research, which have found a positive effect of coaching over driver instruction, reducing learning times, improving pass rates and improving learning and teacher satisfaction. The paper suggests that the length of exposure to coaching and factors such as learner motivation and coach-learner relationship may be factors which explain the statistically insignificant results.

References

Anstiss, T. & Passmore, J. (2012). Motivational Interview. In M. Neenan & S. Palmer (eds.) *Cognitive Behavioural Coaching in Practice: An Evidenced based approach,* pp33-52. London: Routledge.

Deviney, D. E. (1994). the effects of coaching using multiple rater feedback to change supervisor behaviour. *Dissertation Abstracts International Section A, 55*, 114.

Grant, A. M., Passmore, J. Cavanagh, M. & Parker, H. (2010). The state of play in coaching. *International Review of Industrial & Organizational Psychology*. 25, 125-168.

Hattaka, M., Keskinen, E., Gregerson, N.P., Glad, A. & Hernetkoski, K. (2002). From control of the vehicle to personal self-control: broadening the perspectives to driver education. *Transportation Research Part F*. 5, 201-215.

HERMES (2010). *EU Hermes project Final report - High impact approach for Enhancing Road safety through More Effective communication Skills* In the context of category B driver training. *Retrieved from: http://ec.europa.eu/transport/road_safety/pdf/projects/hermes_final_report_en.pdf on 10 March 2010*.

Institute of Leadership & Management (2011). *Certificate in Executive Coaching and Management Mentoring.* Retrieved from http://www.i-l-m.com/learn-with-ilm/1057.aspx on 5 March 2012. London: ILM.

Kolb, D. (1984). *Experiential learning: Experience as the source of learning and development.* New Jersey: Prentice Hall.MERIT Project, (2004). 'Driving instructors education in Europe: a long term vision', Final Report (June 30, 2005). Retrieved on 15 March 2010 from http://www.cieca.be/download/MERITFinaReportEn.pdf

McKenna, D. D. & Davies, S. (2009). Hidden in Plain Sight: The Active Ingredients of Executive Coaching. *Industrial and Organizational Psychology*. 2(3), 244-260.

Miller, D. J. (1990). The effect of managerial coaching on transfer of training. *Dissertation Abstracts International Section B, 50*(2435).

Miller, W. and Rollnick, S. (2002). *Motivational Interviewing*. London: Guildford Press.

Palmer, S. & McDowall, A. (2010). *The Coaching Relationship: Putting People First*. Hove: Routledge.

Passmore, J. & Ur-Rehman. (In Review). Coaching as a learning methodology – a mixed methods study in driver development – a Randomised Controlled Trial and thematic analysis. *International Coaching Psychology Review*.

Passmore, J. & Townsend, C. (In Press). The role of coaching in police driver training – An IPA study of coaching in a blue light environment. *An International Journal of Police* Strategies.

Passmore, J. & Mortimer, L. (2011). The experience of using coaching as a learning technique in learner driver development: An IPA study of adult learning. *International Coaching Psychology Review*. 6(1), 33-45.

Rogers, C. (1957). The necessary and sufficient conditions of therapeutic personality change. *Journal of Consulting Psychology*, 21, 95-103.

Sawczuk, P. (1990). Transfer of training: Reported perceptions of participants in a coaching study in six organisations. Unpublished doctoral study. *University of Pennsylvania.*

Whitmore, J. (2010). *Coaching and driving*. Paper presented to Coaching & driving conference. University of East London, UK.