



National implementation scenario of ICT-DRV quality indicators for United Kingdom

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Indicator 1: A supporting and regulating legal and organisational framework

Legal regulations as well as the organisation of work provide the necessary framework for the implementation and, if applicable, recognition of CBT and SBT. This applies especially to the legal framework provided in the context of EC directive 2003/59 and, if necessary, further legal regulations having influence on the implementation of such training alongside regular work as a professional driver. Besides legal aspects also the work organisation provides the learner with the necessary time and framework to participate in CBT/SBT and with the necessary support to transfer newly gained abilities into practical work.

The current situation for the implementation of CBT and SBT training remains a challenge. In terms of periodic training in relation to Directive 2003/59 there are no approved courses that are based entirely on training by computer or simulator, principally because the authorisation body responsible for approving courses (JAUPT) cannot assess or audit sufficiently against what would be considered a distance learning course. As a result none of the approved courses (now in excess of 3000) are considered to be distance or e-learning courses.

From a legal perspective the opportunity exists to create distance learning courses which use simulators, computers, tablets or smart phones as the tool for training delivery. The regulatory framework that governs driver training in the UK makes no mention of the use of distance and computer-based learning and so, by default, the use of such training would be permitted. However, the regulations do insist on (for initial and periodic training) an approved training centre and a method of driver identification. These are two factors that could prevent widespread use of distance learning because of the inflexible nature of the requirement and the difficulty in guaranteeing the identity of the trainee and of the environment where the training is being conducted.

It is likely that the concept of distance learning will be adopted by private transport companies in the first instance, not least because they are not necessarily constrained by the subject requirements of periodic training and can develop training programmes to suit their business and their drivers' working pattern. No doubt it will be these private companies that lead the way in distance learning and subsequently they may influence how authorities and responsible bodies respond (and possibly permit) to such training in the future.

Scenario

The interpretation of the Directive by the UK agency (DVSA) and the compliance authority (JAUPT) permits the use of low, mid and high end simulators, as well as the use of computers, tablets and smartphones for the delivery of periodic training modules. A method of assessment is developed

which ensures a certain level of driver attainment is achieved, guaranteeing the consistency of any approved course or module, and a system of driver verification is established which prevents the risk of fraud or falsification.

Private companies see an increase in the retention of driver knowledge through the delivery of distance learning courses, and continue to develop a programme of CBT / SBT learning. Equally the driver's sense of achievement is high following completion of the course, and through peer discussion and encouragement more drivers request the integration of CBT / SBT in their training and development programmes.

Indicator 2: **Comprehensive information and counselling**

There are information and counselling measures put in place in order to:

- *inform end-users and decision-makers objectively about CBT and SBT,*
- *enable learners, employers and competent-bodies to decide if a CBT/SBT offer meets their requirements,*
- *enable learners and employers to decide if a the training format CBT/SBT is suitable for an individual learner and/or for a certain learning need,*
- *select and adapt courses to individual training needs of a learner and/or a company and*
- *provide learners and contact persons in their company with the necessary guidance and facilitation before, during and after the course attendance/ implementation.*

As a result of the free market approach to initial and periodic training in the UK there are relatively few constraints, and so the opportunity to explore whether CBT and SBT can be applied in a practical scenario has always been there. However, high and mid end simulator training in the UK road transport sector has never been popular, largely due to the perceived high initial investment cost. This has perhaps led to an increase in scepticism, and a reluctance to engage in CBT based training (otherwise considered to be low end simulator training). As a consequence there has been a distinct lack of information or consultation on the possibilities that distance learning may present, and so the concept would need to start from a fairly low level and would require significant promotion and investment in order to be a credible alternative to other, more traditional training techniques.

Scenario

Stakeholders, authorities and transport individuals recognise the potential that distance learning can offer, through an understanding of how to integrate training practices and evaluation methods, and how to structure a distance learning course to ensure maximum impact for the individual concerned. It is actively promoted through the production of literature, guidance notes, study material and academic evidence, and used by some of the larger private companies and transport institutions.

Indicator 3: **Specifically trained trainers and tutors**

Trainers/ tutors facilitating technology-based training are – besides regular training for trainers and in professional topics – trained in a number of additional abilities that are based on the characteristics of the technology they are working with in its learning context. This includes among others specialised training:

- *for simulator trainers in the characteristics of learning with the simulator/ simulation, individual and group coaching and debriefing, the design and selection of scenarios and the operation and application of the simulator, its various*

features and additional tools and

- *for e-learning tutors in the characteristics of distance learning, e-tutoring, learner motivation and instruction, e-communication and coaching as well as interviewing and feedback techniques.*

As already established elsewhere in this paper, the UK market has not adopted the concept of CBT / SBT to any significant degree. Of the many training instructors currently delivering vocational driver training only a handful will have specific expertise on the use of simulators. However, the need for expert one to one tutoring (particularly for CBT) is clear, as the support mechanism before, during and after the course would need to be robust and targeted; this is a familiar approach for many industry training instructors.

In order to increase the market potential of CBT / SBT it is essential to promote the possibilities to those who deliver the training. Of course it is not the subject matter that training instructors need convincing about; it is the way in which the subject is taught. In traditional classroom-based training sessions it is the instructor who delivers all of the training, and so the introduction (particularly CBT) of a new 'shared tutor' approach will be viewed by some instructors as a hindrance to learning and a distraction to their teachings.

Scenario

'Train the trainer' sessions are introduced in coordination with the introduction of a CBT / SBT programme. These sessions provide the instructor with experience of the learning platform, an explanation on how it will benefit a driver, notes to refer to when delivering the training and information 'hand-outs' for drivers to refer to. It also includes information about the learning theory, and how the reality of distance learning (as part of CBT) can reduce the level of scepticism.

The instructors are enthused about the possibilities of CBT / SBT training and fully understand how it can be incorporated into current training practices. They reach a level of competence where they are able to confidently deliver this type of training. They also actively participate in future development of CBT / SBT programmes, and continue to develop their own computer skills and competences to ensure they are able to keep up with emerging technologies.

Indicator 4: Application of the learning outcomes approach

The learning outcomes approach with its implications on the quality of training is applied on SBT and CBT. SBT and CBT courses are described in terms of learning outcomes (knowledge, skills and competences) associated with a course, learning environments are adequate to achieve those learning outcomes and, if applicable, assessment takes all kinds of learning outcomes into account and applies appropriate assessment measures.

Furthermore the application of the learning outcomes approach allows the recognition of prior/ non- and informal learning and the recognition of learning outcomes acquired within those CBT/SBT courses in the framework of other (formal) learning outcomes based vocational education and training courses/ certificates.

The development of a learning outcomes based approach to driver training would be a new and revolutionary way of assessing the development and knowledge acquired through vocational learning in road transport. Although periodic training is perhaps the most recognised, publicised and uniform system of practical driver education it is clearly limited and based on the completion of a set number of hours, which can prove demotivating and be a hindrance to acquiring and retaining knowledge.

Although the UK road freight sector uses various methods of learning evaluation, they tend to be based on credits (a pre-determined value judged against a perceived level of course complexity), which can be inflexible and misleading. Direct feedback / questionnaires are also used to (which tend to be limiting in the value of responses) develop and refine training courses, but this can sometimes give a false indication of the true thoughts or impressions of the person receiving the training.

Many companies incorporate a review of the training provided to their drivers once every year. This review will typically identify performance against the training received, although it is not so much about the driver but more about the business; topics tend to be fuel efficiency, vehicle safety and driving technique, driving hours etc. which can sometimes be designed for business continuity as opposed to personal development.

Scenario

A learning outcomes based approach to training course evaluation is introduced, alongside new CBT / SBT programmes. The approach is designed to enable a review of the knowledge, skills and competences that a driver can achieve through the course, and enables a training instructor to 'match' the responses with the pre-determined aims of the course.

It is backed up by a recognised certification that reinforces the methodology, and is adopted by a certificate agent to ensure consistency and standards.

This outcomes based approach is recognised by stakeholders, agencies, government bodies and industry individuals, and becomes an industry standard approach to academic and vocational driver training. It eventually leads to a review of the Directive 2003/59, which sees a change in approach and the introduction of a learning outcomes-based approach to Driver CPC.

Indicator 5: Provision of an added value to the learning process

The application of computer- and simulator-based training has a clear added value for the learning process and/or the achievement of the aspired learning outcomes. Technology-based courses are therefore exclusively offered for the achievement of learning outcomes that can clearly benefit from the application of such learning approaches and/or that can be equally be achieved through classical as well as through technology-based training approaches.

While the popularity of CBT / SBT is still relatively low there are a number of companies and individuals who are recognising the value in adopting certain aspects of this type of training, particularly computer-based distance learning. It is considered that the amount of CBT programmes will grow steadily over the next few years, but there is still limited opportunity for SBT.

The relationship between CBT / SBT and a new way of evaluation (learning outcomes-based) is still disconnected, particularly as the training courses tend to be delivered in such a way that the focus is on a; simply delivering the course with little evaluation at the end of it and b; focusing too much on the business needs and not enough on the driver.

Scenario

The industry and enforcement bodies recognise the possibilities of a learning outcomes-based approach to vocational education. A thorough review of the knowledge, skills and competences required for the job of a road transport driver is undertaken, and the results are shared accordingly.

A set of learning outcomes is established for both CBT and SBT programmes, which is actively promoted and used across the industry.

Indicator 6: **Sound and thorough instructional and technological interface design**

The design of CBT and SBT is based on instructional design considerations taking into account the aspired learning outcomes and the needs and characteristics of the learner. This leads to the development of learning environments providing best conditions to stimulate and facilitate learning. Pedagogy drives the choice of instructional technology, not the other way around.

With regard to periodic training courses connected to Directive 2003/59, the instructional design element is not normally the main or primary consideration when developing a course programme. The focus tends to be on structuring the course in order to meet the 7 hour requirement, which as we know does not yet apply a learning outcomes-based approach to vocational learning. Another limiting factor is that in the UK the training courses tend to be developed with the goal of achieving a transfer of knowledge during the course, as opposed to focusing on the ability to retain the information / knowledge once the course has been completed. This is, in part, due to the fact that instructional design models are not typically followed by most companies, and in reality it is a process more in keeping with an academic environment.

However, there is scope to introduce an instructional design model for training programmes, and the CBT / SBT environments lend themselves well to this possibility because it is likely that they would become part of a training course, as opposed to the training course. This being the case then the course would become more fluid / flexible and would require a more rigid framework in order to maintain consistent course progress / delivery.

Scenario

The concept of instructional design is recognised as part of a CBT / SBT programme, mainly through a need to develop more targeted guidance for those who will embark on self-paced distance learning. Researchers and developers identify what instructional design models currently exist, and help to create and develop instructional design that is specific to road transport industry.

A standard of instructional design is established which complements the CBT / SBT learning environment.

Indicator 7: **Continuous evaluation and further development of CBT/SBT courses**

CBT/SBT courses are continuous subject for review, change, improvement and further development in order to adapt to changing needs and requirements and to the state-of-the-art of educational technology. Learning is the leading factor within all evaluation and development efforts.

CBT and SBT courses are still considered to be an advanced concept, particularly when compared with classroom-based vocational training. Although the UK has been generally slow to adopt the concept of distance learning it's clear that many transport companies are now looking at ways to not only diversify the training given, but to also identify the training environments and methods used to minimise any negative effect on business continuity.

Once CBT / SBT is established it should be subjected to continuous and effective improvements, although there is a danger that many training companies will either use a CBT programme for longer than is effective (out-of-date technology / methodology) or lose the focus on CBT / SBT and return to more traditional vocational learning.

Scenario

CBT /SBT programmes become quickly established. The market responds well, and through competition and driver requirements the use of CBT / SBT grows and develops. The market is supported by industry stakeholders and policy makers, and subsidised guidance / information is produced which is made available to smaller companies.

Eventually CBT/ SBT is a standard option within training company' prospectus, and driver demand maintains the development of such programmes.

Indicator 8: **Research, sharing and networking on the realisation of SBT and CBT**

The implementation of SBT and CBT requires a continuous dialogue and close cooperation between education providers, developers of CBT and simulators as well as researchers, therefore, continuous sharing, networking and joined research activities are taking place in order to further work on the improvement of SBT and CBT.

It is without question that there are now many options available for sharing information and knowledge, predominantly through the use of the internet and mobile networks. Social / business networks are used daily in order to exchange information, but they are perhaps too 'open' to be useful when trying to establish a relatively new concept in driver training. In any case the possibilities would be numerous, and include seminars, webinars, blogs, social media groups and postings and sponsorships.

Scenario

Larger stakeholders and government agencies recognise the potential value in CBT / SBT and create a series of events in order to promote awareness. The industry leads the way in sharing the possibilities through word of mouth, and individuals / professionals recognise the potential and share the information through various platforms and exchange networks.