



The Drilling and Sawing Association

Modernise Specialist Applied
Skills Programme (SAP)
(DSA 19-01)

Start Date: 01/05/2019

End Date: 31/10/2020

PROJECT SUMMARY

To modernise and implement blended learning to deliver the Specialist Applied Programme to encourage trainees and newcomers within the Industry and reduce the skills shortage within the specialist sector.

With the introduction of new technologies consisting of E-Learning platforms which contains Digital imaging (videos & presentations), Functional Skills and App's to support learning and portfolio building to enhance the engagement of trainees, newcomers, and employers within the industry.

The pilot group involved five trainees aged between 19-55, employed from various diamond drilling companies across the UK. The trainees are enrolled on an 18-month programme and provided with a portable handheld computer installed with the e-learning platform app that can be used both online and offline.

The feedback received to date was positive, with all candidates agreeing that the resources available were supportive in their learning whilst working towards their qualification and the extra time on practical training supported their skills set.

E-Learning platform was developed alongside the first group timetable, providing immediate feedback to test and review the contents and delivery. We identified one of the trainees graded as high risk, who was offered more support and guidance with the E-learning platform.

Covid-19 has been challenging for many, but it has also given the trainees the opportunity to continue with their programme.

INTRODUCTION

The aim of the project was to provide an on-line learning platform that allows Diamond Drilling and Sawing operatives and their employers to gain access to their learning material and provides a portal to their qualification portfolio and course resources, to upload and download the resources required.

The Drilling & Sawing Association provides training and qualifications to support the sector through the specialist applied programme and upskilling programmes, delivery was 50% classroom covering underpinning knowledge and 50% offsite practical.

From the last 15 years of teaching, we identified on our course evaluation forms, trainees engaged more with the practical/physical elements over the classroom sessions.

We implemented e-learning, so the trainees have 2 days of practical training which benefits the trainees with Kinaesthetic learning, or tactile learning issues, this is a learning style in which learning takes place by the trainees carrying out physical activities, rather than listening to a lecture or watching demonstrations and also for the learners who require whole-body movement to process new and difficult information.

Ultimately the aim is to attract the younger generation pursuing a career in diamond drilling & Sawing and reduce the current skills shortage and reduce the age of the existing workforce.

The funding support for this pilot allows us to implement this requirement for a more modern method of blended learning through digital platforms for diamond drilling and sawing training and qualifications, which would appeal to the younger generation (millennials).

PROJECT STRUCTURE

Utilising the current SAP Modules, these have now been adapted for the online portal, with additional learning materials, produced in a video format.

Each video contains question and answer section confirming the trainee has learnt the key points of the equipment within the video. This information is installed on their portal allowing the trainer to confirm their understanding of the specific tool.

This allows the trainee to continue learning towards the practical element significantly reducing classroom time and allowing extended practical workshop exercises.

The modules for the project consisted of the following:

- Diamond Drilling
- Floor Sawing
- Hand Sawing
- Track Sawing (replaced crushing and bursting)
- Wire Sawing
- Remote Controlled Plant

Response from trainees and their employers along with the working group have provided a positive response with the structure and delivery.

Alongside the learning portal, sits the qualification units allowing the trainee to complete the underpinning knowledge questions and upload supporting evidence towards their qualification.

Quality Assurance is covered through the access of the assessor, IQA and QA accessibility to the training portal.

AIMS AND OBJECTIVES

The aim of the project was to modernise the delivery of the current NVQ Level 2 Drilling & Sawing Specialist Applied Programme creating an e-Learning platform to go alongside the 18 month specialist applied programme, encouraging younger generations to pursue a career in diamond drilling and sawing, whilst also providing the opportunity for operatives to increase their digital skills.

The objective of the project was to create an online learning portal system, providing access to learning materials, training videos, and qualification modules. The trainees Combined with an e-portfolio, that candidates can upload evidence and answer questions to support their NVQ.

PROJECT APPROACH TO MEET ITS AIMS

It was agreed that we would first focus on the mandatory units and tools of the Specialist Applied Programme; Diamond Drilling, Handheld saw, Floor Saw and Track Saw and then progress the optional units , remote controlled plant & Wire Sawing. After each module was created, we would review the courses with the trainers.

To pilot the online learning system, we decided we would like to have a group of candidates ages 18-65 years old to get a variety of candidates at different ages and digital skills set. This would provide us with diverse responses in terms of usability, skills, and engagement with the content.

6 intakes going through various stages with 37 learners with the average age of 27 years old.

FUNDING SOURCES

CITB Project Funding	140,228.00
Project Partner Match Funding	42068.40
Overall Project Value	182296.40

PROJECT OUTCOMES

The project successfully created all videos and modules in the following tools. The videos are placed alongside a series of questions related to the videos to ensure the necessary knowledge and understanding.

Tool	Videos			
	Pre -start/ Post Stop checks	Operational	Maintenance	Safe Operations
Diamond Drilling Equipment	✓	✓	✓	✓
Handheld Sawing Equipment	✓	✓	✓	✓
Track Sawing Equipment	✓	✓	✓	✓
Wire Sawing Equipment	✓	✓	✓	✓
Floor Sawing Equipment	✓	✓	✓	✓
Remote control Plant Crusher and breaker Plant	✓	✓	✓	✓

The videos have demonstrated to be successful with the trainees, when they have attended the training centre, the trainees have completed all the relevant videos and questions banked ready to start practical training.

Trainees have been successfully uploading evidence in video and image format, ready for the assessor to review and comment.

Following a survey with the pilot group, we were able to get a strong understanding of the user's opinion on different aspects of the E-Learning system and overall training.

100% of the trainees asked agreed that their knowledge, skills and understanding positively benefitted from the E-Learning system. Along with 100% agree that 2 days practical training benefited their skill level on the tools.

Trainees E-Learning Progress

Name	Company	Drilling Video 1	Drilling Video 2	2-Day Drilling Practical	Drilling Assessment	Drilling Questions (30)		
Adam Aston	Colemans	100%	100%	19-20/09/19	19/06/2020	18 Remaining		
Barrie Chadwick	SCS	100%	100%	31/10/19 & 01/11/19	19/06/2020	1 Remaining		Key
Christopher Johnson	AJ Wilcock	100%	100%	19-20/09/19	19/06/2020	28 Remaining		Incomplete
Christopher Malins	C A Drillers	100%	100%	31/10/19 & 01/11/19	26/05/2020	100%		Completed
Dylan Sykes	BD Nuclear	100%	100%	19-20/09/19	19/06/2020	19 Remaining		Not Assigned

Name	Company	Husqvarna Hand Sawing Video	Tyrolit TR40 Hand Sawing Video	2 Day Hand Sawing Practical	Hand Sawing Assessment	Hand Sawing Questions (6)	
Adam Aston	Colemans	100%	100%	13+14/08/20	29/09/2020	2 remaining	
Barrie Chadwick	SCS	100%	100%	13-14/02/20	19/06/2020	6 remaining	
Christopher Johnson	AJ Wilcock	100%	100%	13-14/02/20	19/06/2020	6 remaining	
Christopher Malins	C A Drillers	100%	100%	13-14/02/20	26/05/2020	100%	
Dylan Sykes	BD Nuclear	100%	100%	13-14/02/20	19/06/2020	6 remaining	

Name	Company	Husqvarna Floor Sawing Video	Tyrolit Floor Sawing Video	2 Day Floor Sawing Practical	Floor Sawing Assessment	Floor Sawing Questions (8)	
Adam Aston	Colemans	100%	100%	2+3/07/2020	19/06/2020	8 Remaining	
Barrie Chadwick	SCS	100%	100%	18+19/06/20	19/06/2020	8 Remaining	
Christopher Johnson	AJ Wilcock	100%	100%	18+19/06/20	19/06/2020	8 Remaining	
Christopher Malins	C A Drillers	100%	100%	18+19/06/20	22/09/2020	100%	
Dylan Sykes	BD Nuclear	100%	100%	18+19/06/20	19/06/2020	8 Remaining	

Name	Company	Pentrunder Track Sawing Video	Hilti Track Sawing Video	Track Sawing Practical	Track Sawing Assessment	Track Sawing Questions (10)	
Adam Aston	Colemans	100%	100%	8+9/10/2020	19/06/2020	10 Remaining	
Barrie Chadwick	SCS	100%	100%	8+9/10/2020	19/06/2020	10 Remaining	
Christopher Johnson	AJ Wilcock	100%	100%	8+9/10/2020	19/06/2020	10 Remaining	
Christopher Malins	C A Drillers	100%	100%	8+9/10/2020	19/06/2020	10 Remaining	
Dylan Sykes	BD Nuclear	100%	100%	8+9/10/2020	19/06/2020	10 Remaining	

PROJECT REVIEW

Overall, the project shown positive engagement with the E-Learning system and practical training, plus digital skills sets increasing amongst the group. As well as 4 out of 5 members of the pilot group being a millennial or generation z. Showing a positive increase in young people pursuing a career in diamond drilling and sawing.

Since the initial start currently we have 37 trainees from 6 intakes using the e-learning platform. The E-learning has given the trainees the opportunity for longer practical sessions within the offsite learning modules increasing confidence and capabilities with less time in the classroom which has been very welcomed.

RECOMMENDATION

One of the recommendations, suggested by a trainee was to expand the coverage of safety critical and maintenance within the learning plan. This was agreed amongst the working group to include specific toolbox talks built into the practical session.

Second recommendation was to carry on increasing the learning portal contents with concrete bursting and hydraulic crushing modules

Any new equipment introduced to the industry; we will continue to update on the e-learning platform.