LSIS Leadership in Technology (LIT) grant based intervention
Impact study template

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LIT Project title	Using simulations to apply learning by stealth.
The project	
What problem or issue you were trying to resolve or improve with this project	We need an innovative and interesting way to deliver key scenarios of training that may involve risk in a safe environment where the learner can undertake activities without risk or harm to themselves or jeopardise any opportunities that may arise.
Why did you go for a technology-based solution	A technology based solution will provide a cost effective way of presenting the scenario that is also reusable. For example, Fire prevention training. Using a simulation allows the activity to be carried out multiple times without the need for using real world expensive equipment that would be costly to replace. Furthermore, scenarios can be presented that are very hard to simulate in a real world environment. Finally a simulation can be undertaken at any time and place providing the user has access to a computer or Smartphone.
What did the project cost: LSIS funding + your organisation's contribution	The project will now go outside of the funding scope for LSIS as we need to complete the project. The main costs attributed to the LSIS funding are: - Mentor - £3000 Training Course - £300 Developer's salary costs¨- £60,000 (of which LSIS contribution of £2700) Seetec funding: - Developer costs - £57,300 Software purchases - £185 Developer's hardware - £875

Describe what you did and what happened	We opted to undertake a simulation based on a candidate attending a job interview. We currently supply this training to our customers using formal teaching methods and simulated interview activities but we feel that the 'interview' is one of those 'dangerous' situations where a customer has only one attempt to 'get it right'. If they are not properly prepared for the situation they can effectively ruin their chances of securing the job on offer. By making this training available in a simulated environment allows a customer to make as many mistakes as they want without jeopardising their chances of securing the job. We also felt that as well as simulating an interview, the application would need to provide constructive feedback along the way regarding the do's and don'ts of attending a job interview. Finally we felt we could extend the interview journey not just to the actual interview but also to other aspects in terms of interview preparation thus providing a simulation that also follows along the lines of an 'adventure' game whereby the player also has to collect certain key objects and carry out key activities that will stand them in better shape at the interview. In summary we wished to build on the current training activities and enhance the remit by extending the scope. The project started with a rough scoping of what was required for the entire simulation in terms of the customer journey from start to finish. The key areas of the simulation for attending an interview that were agreed on are: - (a) - Introduction. (Pick your character and name). This scene also contains the 'Help' function with instructions on how to play the simulation. (b) - The Night Before - This scene is set the night before the interview. In this scene a number of key objects must be collected such as a C.V. Certain objects must be examined for information (such as the interview letter which contains details of where the interview is, who they are seeing and what time the interview is). Activities are also presented that can have a positive or negative effect on the interview outcome (e.g. Ordering takeaway food that diminishes your money supply, Setting your alarm clock that allows the player to get up on time). (c) - The Morning After - This scene occurs the morning of the interview. In this scene various activities need to be carried out that enhance the player's chances of making a good impression at the interview, for example, choosing the correct outfit to wear to the interview.

	(d) - Catching the Train - In this scene the player has to choose the correct route, fare and train time in order to get to the interview on time. Factors that affect this scene are for example, if the player has not enough money to purchase a ticket due to activities carried out in 'The Night Before' scene. (e) - At Reception - In this scene the player has to make their way to the reception of the company where the interview is held. Once there they have to successfully converse with the receptionist in order to attend the interview. (f) - At the Interview - In this scene, the player starts in the waiting area awaiting their interview. In the waiting area there are several objects and activities that can have a positive or negative effect on the interview. After a short wait the interview starts and again, the player is presented with several choices of responses to actions and questions. (g) - After the Interview - This scene gives feedback on the players performance during the simulation and guidance as to what they did that had a positive of negative effect on the interview. Research was next carried to determine what to use to author the application. It was decided that the simulation was more, in terms of coding, allied to a games environment than a learning environment. Games engines give more flexibility in terms of interactions than an e-learning tool. We found an application called 'Thinking Worlds' which is specifically designed for the kind of simulation we wished to produce. Furthermore, as all members of the team involved in the project had little experience in authoring in this environment, Thinking Worlds incorporates a graphical programming interface where the application is created using a 'flowchart' format that allowed us to concentrate on the logistics of game play rather than learning a new programming language. The final stage of the project after authoring will be to test the application in two main stages, Alpha and Beta. Alpha testing will involve a small group of staff members who will play the simulation and report back to the coding team any fundamental issues they encounter. This could be serious software lock ups that render the simulation unplayable or software loops whereby the player gets stuck in a situation they cannot get out of. Beta testing will involve a group of users from the target group who will give feedback on the game play and any minor 'bugs'

	that were encountered. Coding began shortly after securing the LSIS project funding and has progressed steadily although not at the original pace we envisaged. This will be covered in more detail in the 'Benefits and Impact' section. Currently of the project specification we have 3 scenes coded and ready for alpha testing. These incidentally, have not been coded sequentially. We took the decision to code the Interview scene first which is effectively the last playable scene as this would ensure we had the correct objects required and coding variables for the earlier scenes. The journey so far has not been a smooth one and the project has grown, in terms of the content due to scenarios occurring in the game we did not envisage at the initial planning stage. Several issues with the software being used has also created more issues in terms of slow reply to support questions (sometimes as long as five days!) and creation of specific objects not supplied in the software by default. In conclusion to this part of the report, the application will not be completed by the end of the project date but as an organisation we have a firm commitment to complete the application as we feel it will be of great benefit to the organisation. Consequently it has been decided to Alpha test the parts of the simulation that are currently functioning in order to gain some initial feedback to what we have achieved so far. We also wish to expand this form of learning into other topic areas and Managers who have had a preview of the application have muted ideas of learning areas they feel will benefit from a simulation of this type.
The benefits and impact	
What benefits/ impact has the project had on:::	a. the work/ effectiveness of your organisation Currently, due to the fact that the simulation is not completed, the project has had little effect on the work and effectiveness of our organisation. Once the simulation is finally complete and the reason why we need to complete it and undertook the LSIS project is that e can see great benefits to our organisation. The ability to carry out interview techniques training in a simulated environment will enable us to improve job success rates for our clients. We can also provide key training for our clients nearer to the time they need to use it. The simulation can also be run as many times as required thus allowing learning reinforcement and finally, the client throughput should be much greater when

	compared to conventional learning methods that are limited to class size
	b. the cost/ efficiency of activities We feel that this type of development carries a much larger cost in terms of time and resource than we originally envisaged. Development time was hugely underestimated for the given staff resource as was the planning requirement. When we undertake our next project of this type we will allow a much greater amount of time in the planning stage which will give a much better indication of the amount of time and resources required for the actual development. However, that said, the efficiency issue is of our own making purely in our naivety of this type of project. The time spent on this project has left us in very good stead for the next time we approach this kind of project and will surely take a different approach in the planning stage. Furthermore, the ongoing return on the completed simulation has the ability to recoup any financial spend in terms of cutting down on the need for face to face training and its associated costs.
	c. any other aspect of your work The project tested my skill set and the skill sets of the others on the project. This type of project requires different skills to those normally associated with training. We have determined that this type of training approach is definitely in the skills set of the Games developer. There are three definite aspects to the creation of this type of learning simulation, graphics generation, audio creation (Sound effects/background music) and code creation (Game play). This has created a huge learning curve within the team and is fair to say that a large portion of the project was involved in gaining the prerequisite skills to deliver these aspects of the simulation.
What contribution to the success / smooth running of the project was made by:	LSIS funding a little / some/ a lot / essential Your mentor a little / some/ a lot / essential LSIS Associate a little / some/ a lot / essential
Do you have any comments on the	The funding has assisted in easing the development costs of the project and also 'kick starting' us into moving into this area of

funding, mentor or LSIS Associate.	learning development which is something we have wanted to move into for some time but haven't really known where to start. The mentor has provided useful ideas into the insight of the development of this type of project and has supported it with examples of his own work. Our associate has proved invaluable in terms of liaison with LSIS and the Mentor and in giving support to the project as a whole.
What lessons did you learn / what tips would you give to other providers	We have learnt many lessons from undertaking this project and have many tips to pass onto other providers who wish to undertake a project of this type. Our first key lesson and tip to pass on would be to not underestimate the time required and the resources needed to produce a learning simulation. When looking at examples on the Internet and marketing blurb from development packages be wary of the term 'Rapid Applications Development' because invariably it isn't. You need to factor a large amount of time for planning including how you are going to approach the simulation, what obstacles are there to overcome and will the game play be fluid? Ensure the package or language you use to develop in is robust and well supported. Ours, when viewing the blurb on the supplier website seemed fine and on the whole, it is. It does however, suffer with certain foibles that have slowed development. These are 'bugs' whereby code written doesn't behave in the way it should. This in itself is not so bad as most development packages will suffer with these problems but waiting for the 'workaround' from the support site was at times, extremely slow and to the point where development could not continue until resolved. Make sure that a coherent backup strategy outside of the software package is implemented. On occasions we lost up to a month's work as the backup methods inherent in the software still resulted in complete corruption of the files forcing the work to be redone. Make sure you have people with the prerequisite skills to build the simulation. As mentioned earlier in this report, the three key skills areas are graphics, sound and code development. Also ensure that the resources are available to generate these requirements. Some of the applications required in these areas can run into £100's and even £1,000's of pounds so ensure you

	have budgeted for this software prior to undertaking the project. Make sure that research is done to ensure the simulation you are creating is suitable. Not all scenarios may work as a simulation so ensure it does. We gained feedback from staff and potential users to see if this was something that would work and checked the suitability for translation into a simulation. Look to the gaming arena rather that the learning arena for inspiration. One of the key factors of a learning simulation is it needs to be fun in order to engage the learner. Take the approach of 'stealth' learning whereby having the user participating in the simulation they are learning without realising it. They need to feel they are playing a game rather than learning a topic. Don't be afraid to try an idea and then scrap it because it didn't work. Sometimes it will and may well make the simulation. Our simulation has many unused scenes that haven't made it to the final cut but without trying it, we would never have known. Finally ensure that your simulation is tested by people other than the developers. These people can give good feedback on what works and what doesn't.
Telling others	
What have you done to share /disseminate this project with others in the sector	Currently, we have not disseminated the project with anyone other than our LSIS mentor and associate as it is not completed yet. We are however, happy to allow anyone to view our project and get ideas from it and share code if it will perform a similar task to what they wish to achieve. We would be happy for our details to be passed to other providers who need to gain experience in this field and hopefully avoid some of the pitfalls we have encountered. We feel that the experience we have gained through this project has put us in a place of expertise now that others could benefit from.
Provide a quote on your experience of the LSIS LIT project.	LSIS has enabled us to move into a new sector of learning development that should enhance our business opportunities.
Are you happy for us to use this and	Yes

your contact details for marketing and publications?	
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