# Knowledge assessment: Short answers

## Criteria

### Unit code, name and release number

ICTICT426 - Identify and evaluate emerging technologies and practices (1)

### Qualification/Course code, name and release number

ICT40120 - Certificate IV in Information Technology (1)

## Student details

### Student number

### Student name

Ryan Bassil

## Assessment Declaration

This assessment is my original work and no part of it has been copied from any other source except where due acknowledgement is made.

No part of this assessment has been written for me by any other person except where such collaboration has been authorised by the assessor concerned.

I understand that plagiarism is the presentation of the work, idea or creation of another person as though it is your own. Plagiarism occurs when the origin of the material used is not appropriately cited. No part of this assessment is plagiarised.

### Student signature and Date



Ryan Bassil 03/03/2022

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For queries, please contact:

Technology and Business Services SkillsPoint

Location: Ultimo

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## Assessment instructions

Table 1 Assessment instructions

| Assessment details | Instructions |
| --- | --- |
| **Assessment overview** | The objective of this assessment is to assess your knowledge of researching and implementing new technology. |
| **Assessment Event number** | 1 of 2 |
| **Instructions for this assessment** | This is a written assessment and it will be assessing you on your knowledge of the unit.  This assessment is in one part:   1. Short answer questions   The assessment also contains:  Assessment Feedback. |
| **Submission instructions** | On completion of this assessment, you are required to upload it or hand it to your assessor for marking.  Ensure you have written your name at the bottom of each page of this assessment.  Submit the following documents:  This assessment paper  It is important that you keep a copy of all electronic and hardcopy assessments submitted to TAFE and complete the assessment declaration when submitting the assessment. |
| **What do I need to do to achieve a satisfactory result?** | To achieve a satisfactory result for this assessment all questions must be answered correctly. |
| **Assessment conditions** | Assessment conditions will replicate the workplace, where the conditions are typical of those in an ICT working environment or workplace.  Assessment may be undertaken in normal classroom conditions, which is assumed to be noisy and similar to workplace conditions, or within the workplace. This may include phones ringing, people talking and other interruptions. |
| **What do I need to provide?** | A pen, if a paper version of assessment is provided  USB drive or other storage method with enough free space to save work to. |
| **What will the assessor provide?** | n/a |
| **Due date and time allowed** | Indicative time to complete assessment: One hour  Due Date: 3rd March |
| **Assessment location** | This assessment will take place in the classroom.  The student may access their referenced text, learning notes and other resources. |
| **Supervision** | This is a take home assessment. |
| **Reasonable adjustment** | If you have a permanent or temporary condition that may prevent you from successfully completing the assessment event(s) in the way described, you should talk to your assessor about ‘reasonable adjustment’. This is the adjustment of the way you are assessed to take into account your condition, which must be approved BEFORE you attempt the assessment. |
| **Assessment feedback, review or appeals** | In accordance with the TAFE NSW policy *Manage Assessment Appeals,* all students have the right to appeal an assessment decision in relation to how the assessment was conducted and the outcome of the assessment. Appeals must be lodged within **14 working days** of the formal notification of the result of the assessment.  If you would like to request a review of your results or if you have any concerns about your results, contact your Teacher or Head Teacher. If they are unavailable, contact the Student Administration Officer.  Contact your Head Teacher for the assessment appeals procedures at your college/campus. |

## Short answer questions

**Read the questions carefully. Each answer should be 75-200 words. \**

**Expand the boxes as required.**

1. Outline the research approaches **qualitative**, **quantitative** and **mixed methods**. Discuss which could be used when researching emerging technologies and practices in the ICT sector (particularly around gaming technologies and practices) and their potential impact. Justify your response.

A mixed data approach should be used when researching emerging technologies and practices in the ICT sector.

* Having a focused, **quantitative** approach would result in the same or similar mistake that *Sony* had with their *Betamax* to *JVC*’s VHR system; whilst Sony had the better hardware, qualitative data showed only upon releasing the product that the majority favoured the VHR system. The quantitative data showed that Sony’s system indeed matched and exceeded the majority’s expectations for the solution to the problem, but the qualitative proved the how and what was lacking.
* Likewise with a **qualitative** approach, focusing too much on individual preference may result in failing to solve the over-arching problem that is at hand. Qualitative data is a much smaller scale of data and is more subjective and often non-measurable data, which leaves the potential for the researched emerging technology to fail to meet the majority’s requirements, preferences, or expectations.
* A **mixed** approach would provide the scope of majority collective data on the exact problem at hand, and the qualitative data would compliment that data by proving the data true with smaller groups, possibly finding other problems people have that wasn’t within the scope of the quantitative data, and provide greater marketing leverage for the technology.

1. Identify 3 sources of information about emerging devices within the gaming sector. For each source:
   1. List the source and give the URL or details of where to find the source
   2. Indicate the type of source
   3. Indicate how reliable the source is (is it a Primary or Secondary source)?
2. The *PlayStation Virtual Reality 2*

A. <https://www.playstation.com/en-au/ps-vr2/>

B. Factual scholarly source (official company website)

C. Primary source

2. The *Workstation Chair* (*Ultimate Gaming Chair*)

A. <https://imperatorworks.com/index.php>

B. Factual popular source (website)

C. Primary source

3. The *ICAROS Pro* (Gaming VR hardware and software)

A. <https://www.icaros.com/products/icaros-pro/>

B. Factual popular source (website)

C. Primary source

1. For the sources indicated in question 2, what emerging devices were described? Is there any overlap between the sources about these devices? Often it is possible to see that many sources just copy from one primary source – can you identify the primary source?
2. New VR headset device with improved features compared to previous model and competitor devices.
3. An electronic and mechanical gaming/work chair that provides superior comfort when working at a computer as well as user experience. It also provides additional features such as extra monitor mounting, anti-glare lighting, and device charging/connectivity.
4. Electronic and mechanical equipment designed for unique postures, movements, and ability not available with other technology like it. It is design is focused primarily for gamers but also includes athletes and medical rehabilitation. It can be used simply as equipment or complimented with its own VR software for improved experiences.

There is cross-over/overlapping references between the PS VR headset (and its competitors) and the ICARO Pro, mostly originating from the ICARO website in reference to its compatibilities.

1. For the above sources, how would you evaluate the **credibility** of each source (what makes you think you can believe them)?
2. Visiting each company’s headquarters or at least a retail store in the local area and enquiring about, or even testing, the product.
3. If the first option is not possible (such as an online shop) then reading public online forums such as reddit.com, Facebook, possible compatible technology company’s website or forums (eg. Going to HTC Vive’s website after reading about the ICAROS). This would be considered popular tertiary sources.
4. Asking people in person, such as friends, or even retailers that distribute the product about it, possibly even being able to physically see or test the product.
5. Finding scholarly sources such as research papers or studies from their own respective written sources and research if even their author’s have credibility by investigating their sponsors or workplace. (In the interest of eliminating possible “fakenews” or bias.)
6. What are SMART goals?

SMART goals (Specific, Measurable, Achievable, Relevant, and Time-based) are goals that accompany or are incorporated into an overall plan or objective. They are a means of compartmentalising and analysing the main objective to improve success and increase feedback throughout the main objective’s life.

More specifically, it breaks it down into *specific* and narrow goals. These goals are then associated and broken down into a means of *measurable* data comparatively and are checked for their level of how *achievable* they are. They are also analysed for their *relevancy* to the main objective or plan, and all the data for the SMART goal is given a *time* frame for when it must be completed relevant to the main objective. Each part of a SMART goal is compared to and related to each other. I.E: a goal’s timeframe is relevant to how achievable the task might be given the measured effort and work required for the specific goal that is relevant to achieving success of the overall objective.

1. What is a SWOT analysis? How can it benefit your game studio in determining the effectiveness of new technologies and practices?

Acronym for *Strengths, Weaknesses, Opportunities, and Threats*. A SWOT analysis can provide useful data on determining the potential success and failure of a technology or practice in a game studio by giving information relating to its environment, the studio’s resources, the target demographic, and the competition.

By identifying and evaluating the four aspects of SWOT analysis in the studio a greater understanding and insight is provided overall, allowing potentially more effective or potent decisions to be made on the technology or practice. I.E: your game studio requires specific physical resources to build the hardware, the resources can be purchased from a few companies across the world, and some are more local than others. With the SWOT analysis, you would have the information and insight that purchasing from an international company may be more costly, but it would bolster your reputation and marketing value through whisper marketing (Opportunity), thus saving costs in future marketing and providing the edge in sales (Strength). It may also reveal that there is a possibility of environmental hazards while importing the resource which could result in losing some (Threat), however it has also identified that other companies that are your competitors for similar technology have a cheaper means to purchase their resources and thus can focus on marketing (Weakness) and therefore influence your decision.

1. Discuss the approach you would take to start the process of implementing an emerging technology within your game studio.

My approach to implement my own emerging technology in my game studio would be as follows:  
Conduct quantitative research on existing technologies to discover the main issue(s) with them, and then conduct qualitative research to uncover any hidden issues or any useful user experience information to be able to improve the technology's UX and physical design. Then to conduct a SWOT analysis on the technology and current game studio/business resources and implement SMART goals following the analysis' results.

If I were implementing other company’s emerging tech into my game studio, the plan would be to research both quantitative and qualitative data (as mentioned in q4 above) and conduct our own SWOT analysis on how the technology might affect the studio’s production, morale, progress of existing efforts, and other aspects. Following that would be drafting SMART goals to follow for incorporating this technology into the studio, and finally once the process is finished, ensure training and team morale meetings are conducted.

## Assessment Feedback

*NOTE: This section* ***must*** *have the assessor signature and student signature to complete the feedback.*

### Assessment outcome

Satisfactory

Unsatisfactory

### Assessor feedback

Has the Assessment Declaration been signed and dated by the student?

☐ Are you assured that the evidence presented for assessment is the student’s own work?

Was the assessment event successfully completed?

If no, was the resubmission/re-assessment successfully completed?

Was reasonable adjustment in place for this assessment event?  
*If yes, ensure it is detailed on the assessment document.*

Comments:

### Assessor name, signature and date:

### Student acknowledgement of assessment outcome

Would you like to make any comments about this assessment?

### Student name, signature and date

Ryan Bassil A picture containing text

Description automatically generated

01/03/2022

***NOTE: Make sure you have written your name at the bottom of each page of your submission before attaching the cover sheet and submitting to your assessor for marking.***