

Work Analysis: Digital Learning Instructor

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Job Level

Job Title

University-based Digital Learning Instructor

Job Description

The instructor develops a portfolio of digital pedagogical resources. The instructor is part of a team of instructional designers, educators, teachers, digital learning consultants and multimedia experts to support the University's curriculum. The instructor uses a variety of e-learning tools and coordinates the completion of resource development, according to various teaching and learning contexts, for eventually ensuring the best delivery of knowledge to students.

Prerequisite Areas of Knowledge, Skills, Process knowledge, Physical abilities, Education, or Experience

- Knowledge: Learning pedagogy and digital learning tools to support the development of innovative and resilient resources for a wide spectrum of topics and contents in hybrid, virtual, and blended learning environments
- Skills: Excellent English writing and editing skills, meticulous attention to details, and strong communication, organisation and time management skills
- Process knowledge: Integrating new technology to support active and multidisciplinary teaching and learning online
- Physical abilities: Able to watch the multimedia and listen to the narration
- Education: A university degree and preferably a postgraduate degree in liberal Arts, Digital Humanities, Education, Natural Sciences, Social Science, Visual Communications or equivalent
- Experience: Five years of proven experience in implementing and utilizing e-learning resources in higher education or senior secondary levels; Teaching experience in liberal studies or related disciplines

Tools, Equipment, or Any other Resources required as Part of the Job.

Part	Purposes
Information technologies	
Computers with embedded graphic processing cards (Laptop preferable)	To perform works
Multimedia design software (e.g., Adobe Creative Suite)	To produce videos
Office editing software (e.g., Microsoft Office 365, Google Workplace)	To design storyboard; To support office administration
E-learning design software (e.g., Articulate 360)	To produce e-learning packages
Learning management systems (e.g., Moodle, Canvas, Open edX)	To create e-learning courseware
Internal communication channels (e.g., Slack, Google Workplace)	To communicate with colleagues and internal stakeholders
External communication channels (e.g., email)	To communicate with clients and external stakeholders
Orientation	
University orientation	To familiar the working process in the organization
General occupation orientation	To familiar the working process in the occupation
Internal practice orientation	To familiar the working process in the team
Others	
Office and Stationery	To support office administration

Duty Level (DACUM Chart)

Duties	Tasks		
A. Conducting the need analysis report for course development	A-1. Identify the profile of learners	A-2. Identify the needs and learning environment	A-3. Identify information processing steps and prerequisites
B. Designing course documents for course and module development	B-1. Design learning goals, objectives and outcomes	B-2. Decide instructional strategies, activities & learning technologies (Decision analysis) (Training objectives)	B-3. Decide topics that are to be covered in every module
C. Designing storyboard for multimedia instruction	C-1. Identify items to be discussed in the video	C-2. Compose video script (Procedure analysis)	C-3. Negotiate the storyboard with speakers
	C-4. Design timestamp	C-5. Design visual aids	
D. Producing instructional videos for learners' watching	D-1. Produce video footages (talking head, site)	D-2. Design visual aids and animations (Training objectives)	D-3. Assemble video footages into a video
	D-4. Design audio components (e.g., narration, background music)	D-5. Adjust video content based on stakeholder's feedback (Revision/ Adjustment analysis)	D-6. Compose the video with suitable settings
	D-7. Troubleshoot video compiling problems (Troubleshooting analysis)		
E. Designing courseware packages for learners' navigating	E-1. Design rules and instructions for using the courseware	E-2. Design the browsing routine of the courseware	E-3. Install instructional videos and reference texts on the platform
	E-4. Design assessments in the courseware package	E-5. Inspect the compatibility of the package in various computer configurations (Inspection analysis)	
F. Communicating with stakeholders for project development	F-1. Schedule weekly routine meetings and debriefing meetings with teachers	F-2. Prepare reports for stakeholders	F-3. Manage archive of reports

Task Level Analysis

Procedure Analysis

Task: Compose video script (C-2)

Step	Quality	Comment
1. Draft a presentation deck	Ideas as point form on plain slides	Can be based on existing resources (textbooks, slide decks, published papers, reports, references)
2. Self record a presentation	Causal presentation. Not necessary to be perfect. Can contain pause and restart	Via Powerpoint, Zoom or Camtasia for self-recording
3. Transcribe the recording	Not necessary to be perfect	Via Google Cloud Service, IBM Watson Service or other external services for translation
4. Reorganize the transcribed script in a paragraph level	Well-organized	Illustrate at most three concepts within seven minutes
5. Polish script in a sentence level	As concise and neat as possible. Deliver clear messages.	The script will be used for the caption in the later stage. Include signpost for managing essential processing and fostering generative processing Avoid unnecessary contents for reducing extraneous processing

Troubleshooting Analysis

Task: Troubleshoot video compiling problems (D-7)

Problem situations	Probable causes	Corrective actions
<ul style="list-style-type: none"> The video editing software is not responding. 	<ul style="list-style-type: none"> Computer memory has been used up Computer CPU capacity has been used up 	<ul style="list-style-type: none"> Save the existing working files Close other softwares Decompose videos into several sub-videos Reduce video resolutions (from 4Kp to 1080p) Update or reinstall the video editing software
<ul style="list-style-type: none"> The video is blurred. 	<ul style="list-style-type: none"> The pre-defined video resolution is too low. 	<ul style="list-style-type: none"> Increase the video resolution setting
	<ul style="list-style-type: none"> Video footages have inconsistent resolutions and video sizes. 	<ul style="list-style-type: none"> Check the resolution of video footages
	<ul style="list-style-type: none"> The size of the compiled video is too small. 	<ul style="list-style-type: none"> Increase the video size setting
<ul style="list-style-type: none"> The video stops suddenly. 	<ul style="list-style-type: none"> Footages are missing 	<ul style="list-style-type: none"> Check the storyboard
	<ul style="list-style-type: none"> Has not included ending transition 	<ul style="list-style-type: none"> Add an ending transition
<ul style="list-style-type: none"> The video thumbnail has been disappeared. 	<ul style="list-style-type: none"> Compiled to a wrong destination 	<ul style="list-style-type: none"> Reset the destination
	<ul style="list-style-type: none"> Used "Faded in" transition at the start of the video 	<ul style="list-style-type: none"> Remove "Faded in" transition at the start of the video
	<ul style="list-style-type: none"> Has not included a static thumbnail 	<ul style="list-style-type: none"> Include a static thumbnail

Inspection Analysis

Task: Inspect the compatibility of the package in various computer configurations (E-5)

Inspection point	Inspection steps	Criteria
A. Video content	<ol style="list-style-type: none"> 1. Play the first 5 seconds 2. Play the middle 5 seconds 3. Play the last 5 seconds 	<ul style="list-style-type: none"> • Video resolution (720p minimum, 1080p typical) • Volume and pace are suitable
B. Subtitle	<ol style="list-style-type: none"> 1. Play the first 5 seconds 2. Play the middle 5 seconds 3. Play the last 5 seconds 4. Scroll through all subtitles 	<ul style="list-style-type: none"> • Complete subtitle • No strange characters
C. Grading formula	<ol style="list-style-type: none"> 1. Test questions and check the final score (One question every time) 2. Check course passing criteria 	<ul style="list-style-type: none"> • Correct final score • "Pass" is flagged
D. Section headers	<ol style="list-style-type: none"> 1. Read Section headers 	<ul style="list-style-type: none"> • Correct headers
E. Messages	<ol style="list-style-type: none"> 1. Check dates, titles, recipients 2. Check contents and formats 3. Send a test message to your personal account and check it 	<ul style="list-style-type: none"> • Complete and correct messages

Decision Analysis

Task: Decide instructional strategies, activities and learning technologies (B-2)

If the activity is for ...	And ...	Then, class activities can be ...
Pre-class	<ul style="list-style-type: none"> • Individual 	<ul style="list-style-type: none"> • Video commenting; Ungraded knowledge check questions; Compulsory reading
	<ul style="list-style-type: none"> • Group 	<ul style="list-style-type: none"> • Group discussion
In-class	<ul style="list-style-type: none"> • Individual 	<ul style="list-style-type: none"> • Lab sessions; Programming; Online voting
	<ul style="list-style-type: none"> • Group 	<ul style="list-style-type: none"> • Discussion; Brainstorming; Peer review; Competition; Role play; "Jigsaw"; "Think-pair-share"; Post-it note; Case study
After-class	<ul style="list-style-type: none"> • Individual 	<ul style="list-style-type: none"> • Online quizzes; Online assessment
	<ul style="list-style-type: none"> • Group 	<ul style="list-style-type: none"> • Peer review; Forum discussion; Group project; Infographic/Podcast design

Revision/Adjustment Analysis

Task: Adjust video content based on stakeholder's feedback (D-5)

Revision	Purpose	How
Length of the video	Audiences can complete the video	<ul style="list-style-type: none">● Remove unnecessary content● Decompose videos into multiple segments
Volume of the narration	The narration is comfortable and clear to listen	<ul style="list-style-type: none">● Increase the volume of the narration● Decrease the volume of the background music● Include the background to cover ambient noise
Visuals of video	Audiences can clearly understand what the teacher said	<ul style="list-style-type: none">● Add relevant visuals● Sync visuals with narrations● Remove unnecessary visuals

Examples of Training Objectives for Tasks

Task 1: Decide instructional strategies, activities and learning technologies (B-2)

Training objectives:

Given the profile of learners, teaching needs and learning environment, each trainee will decide appropriate instructional strategies, activities and learning technologies for the course, with the following criteria:

- Instructional strategies, activities and learning technologies can support teaching presence, cognitive presence and social presence in the course;
- Students have no difficulties using instructional strategies and learning technologies;
- Teachers have no difficulties setting up instructional strategies and learning technologies by themselves with minimal technical support.

Task 2: Design animations and visual aids (D-2)

Training objectives:

Given a set of storyboard and script, each trainee will design animation clips and visual aids for videos, with the following criteria:

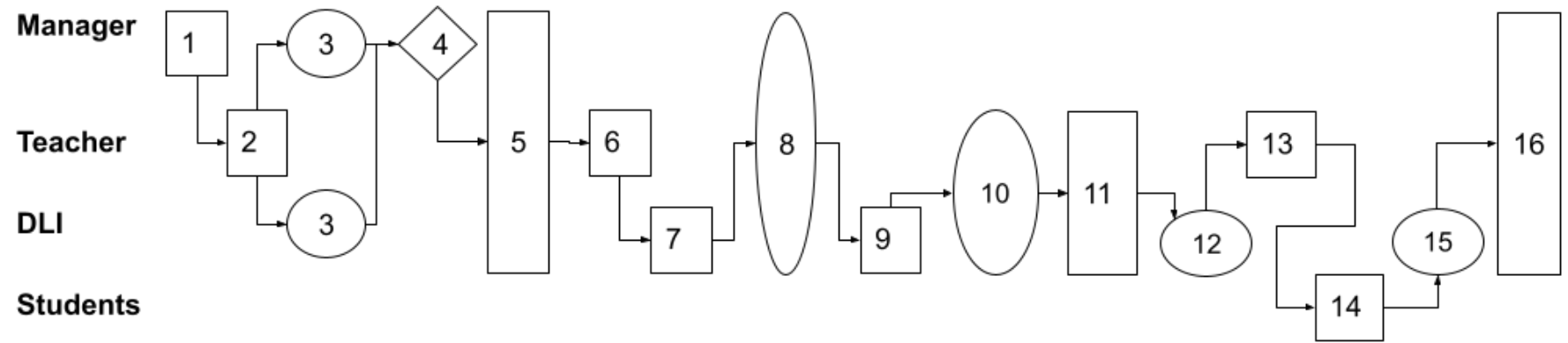
- An appropriate colour tone and style of animations and visual aids are selected;
- Animations with an appropriate pace, margin and position are designed;
- Static visual aids with an appropriate margin and position are designed;
- Animations and visual aids are designed via multimedia design tools.

Work Process Analysis

Designing a portfolio of digital pedagogical resources with teachers and digital learning designer process

(DLI: Digital Learning Instructor)

Steps	Description	Responsible person/team	Steps	Description	Responsible person/team
1	Manager calls for proposal of co-design	Manager	9	DLI designs learning objects (D-1, D-2, D-3, D-4, D-5, D-6, D-7, E-1, E-2, E-3, E-4, E-5)	DLI
2	Teacher submits a proposal	Teacher	10	DLI and teacher review learning objects (F-1, F-2)	Teacher, DLI
3	Manager and DLI review proposals (A-1,A-2,A-3)	Manager, DLI	11	DLI and teacher launch the prototype learning object	Teacher, DLI
4	Manager approves proposal	Manager	12	DLI revises learning objects (D-5)	DLI
5	DLI organizes the co-design kickstart meeting (F-1)	Manager, Teacher, DLI	13	DLI and teacher launch the prototype learning object	Teacher
6	Teacher provides existing materials	Teacher	14	Student uses learning objects	Students
7	DLI designs a prototype learning object (D-1, D-2, D-3, E-1, E-2)	DLI	15	DLI reviews used learning objects	DLI
8	DLI team and teacher review the prototype learning object (F-1, F-2)	Manager, Teacher, DLI	16	DLI team and teacher join review meeting (F-1, F-2, F-3)	Manager, Teacher, DLI



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