PROJECT POSTMORTEM REPORT

PROJECT TITLE REPORTING PERIOD

ASAP /]	BDIAP online teaching project	April 22 – May 25, 2022
----------	-------------------------------	-------------------------

PREPARED BY: DATE PREPARED

Dr Richard Byers	5 th June 2022
------------------	---------------------------

PROJECT OVERVIEW

What is the goals of the project?

- Develop online teaching platform in haematopathology for trainee pathologists in Kenya, Zambia initially, with later extension to other sub-Saharan countries
- Use haematopathology as template to develop platform that can be extended to other sub-specialities, especially renal pathology and dermatopathology

What are the objectives of the project?

- Compare Zoom and Canvas as delivery platforms
- Build online teaching platform in preferred platform
- Develop CPD resources to support teaching, including online quizzes in Google docs
- Engage with trainee pathologists / residents to ensure platform and content appropriate for needs

Please list the key activities in the order of completion as per your project plan/proposal

- Options appraisal of Zoom, Canvas, Blackboard and Moodle as teaching platforms
- Deliver haematopathology teaching course and use to build online teaching resource, including lectures, links to zoom recordings, and links to whole slide images (WSI)
- Develop CDP resources including online quizzes to accompany each lecture / recording
- Develop online discussion group
- Provide monthly tutorial sessions
- Provide weekly online slide based teaching

PROJECT HIGHLIGHTS

What were the major accomplishments so far?

List all what you have achieved for last 4 weeks and make sure to give description in more prescribed form that matches the information given in project plan/proposal.

- Developed online teaching platform in Canvas for haematopathology (prepared by Dr Richard Byers) and anatomical pathology dissection / grossing (prepared by Dr Anita Byers)
- Delivered 4 week programme of haematopathology teaching (detailed in appendix 2) in person in Aga Khan University Hospital, Nairobi, Kenya
- Differentiation into lymphomatous haematopathology focussed for anatomical pathology residents and myeloid for clinical pathology residents
- Options appraisal of Zoom, Canvas, Blackboard and Moodle as teaching platforms prepared by Angela Mutuku (appendix 3)

What methods have worked/ are working well?

- Canvas selected as preferred delivery platform as freely available, good functionality to support all required tasks (lecture repository, links to zoom lectures on dedicated youtube channel, discussion groups, quiz section)
- Excellent engagement with project by Aga Khan University (AKU) Hospital faculty and residents, both anatomical pathology and clinical pathology
- WSI images were very effective in teaching
- Virtual online teaching achieved by many participants being located elsewhere than teaching room, including in another city (Mombassa)

What have you found to be particularly useful to accomplish the above?

- Excellent IT support and sufficient internet bandwidth for use of whole slide images
- Good timetabling and facilitation of teaching by AKU faculty, especially project management by Angela Mutuku
- Excellent senior leadership of project by Dr Shahin Sayed
- Excellent resident engagement and support by Dr Priscilla Njenga and Dr Cyrus Matheka in coordinating anatomical and clinical pathology residents respectively

Additional Comments

None

PROJECT CHALLENGES

What elements did not work?

Provide information about issues that came in the way. Give proper information about nature of issues, who dealt with the issues and what has been done.

- WSI images pixelated and difficult to display except using high speed internet, requiring faculty access rather than guest access. This will mean that all locations where used high speed internet will be required as use of WSI images for teaching is essential.
- Youtube will be required for repository of zoom lectures as insufficient space available in free Canvas platform to allow upload, this may include use of adverts in line
 with youtube requirements

What specific processes need improvement?

- Need to establish internet access levels at other locations in sub-Saharan Africa, this has already been demonstrated as sufficient in Zambia but not tested in other countries
- Need to establish weekly online microscope teaching sessions to real-time, this has already been demonstrated successfully for Zambia in the past but needs extension to Kenya with concurrent online delivery to Zambia, demonstrating ability to deliver over more than one country

How can these processes be improved in the future?

- Need to test internet speeds at other locations
- Need to test use of live online microscope sessions simultaneously in Kenya and Zambia (planned start week beginning 6th June)

What were the key problems areas (i.e., budgeting, scheduling, etc.)?

• No significant problems except insufficient internet speed when using guest access at AKU

List any technical challenges.

- Internet speed
- Server hosting of WSI scanned at Manchester Royal Infirmary these could be hosted on the Leeds Virtual Pathology website or via University of Manchester

List any continuing development and maintenance objectives.

- Need to regularly update lecture content as appropriate
- Weekly moderation, reply to discussion board
- Schedule weekly online slide based teaching sessions
- Schedule monthly tutorial sessions

NEXT STEPS

What actions still need to be completed, and who is responsible for completing them?

- Edit online haematopathology teaching and anatomical dissection courses in Canvas prior to publishing to make available to residents
- Deliver online slide based haematopathology teaching sessions
- Annotate WSI links to accompany lectures
- Upload zoom recordings to youtube channel
- Develop discussion boards in Canvas
- Develop online quizzes in Canvas or Google docs
- Develop plan for teaching in Zambia in September to support further development of the project
- Discuss options for extension to renal and dermatopathology with colleagues in the UK

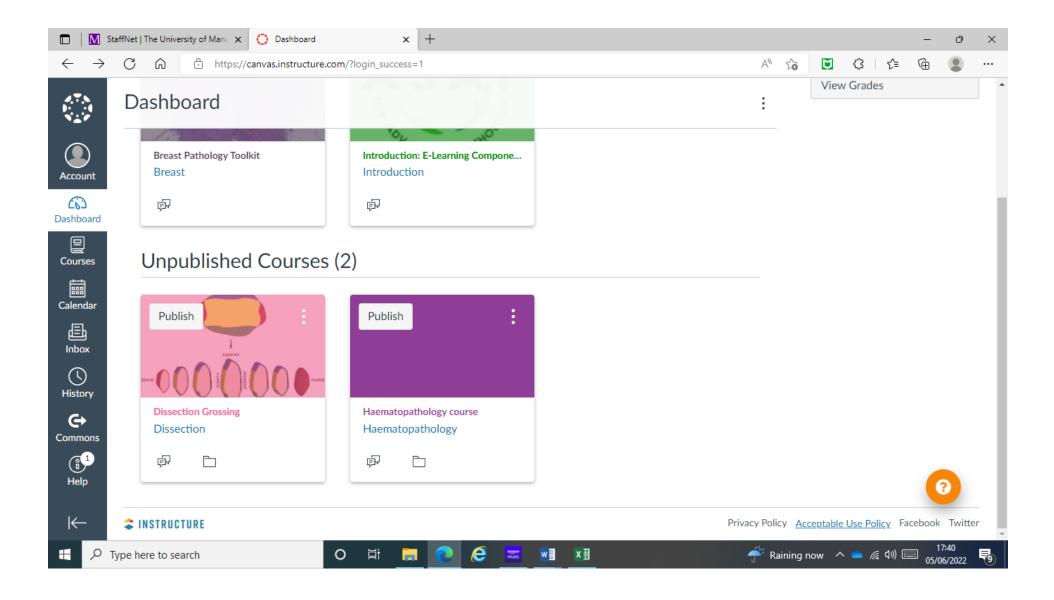
List any additional outstanding project activities as per project plan/ proposal.

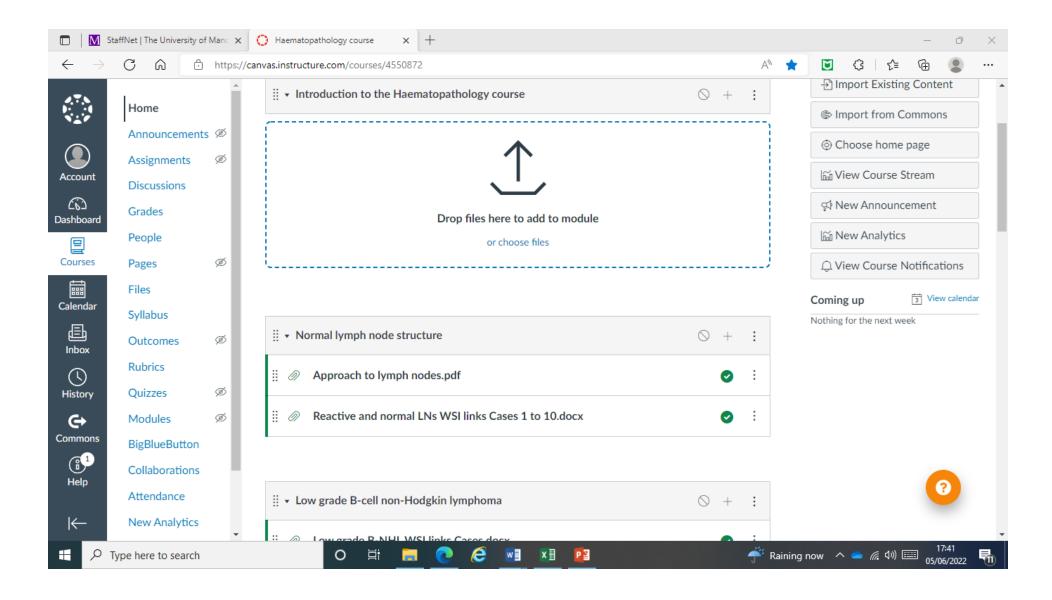
- Develop CDP modules to accompany lectures
- Consider logistics of extension to other sub-Saharan countries

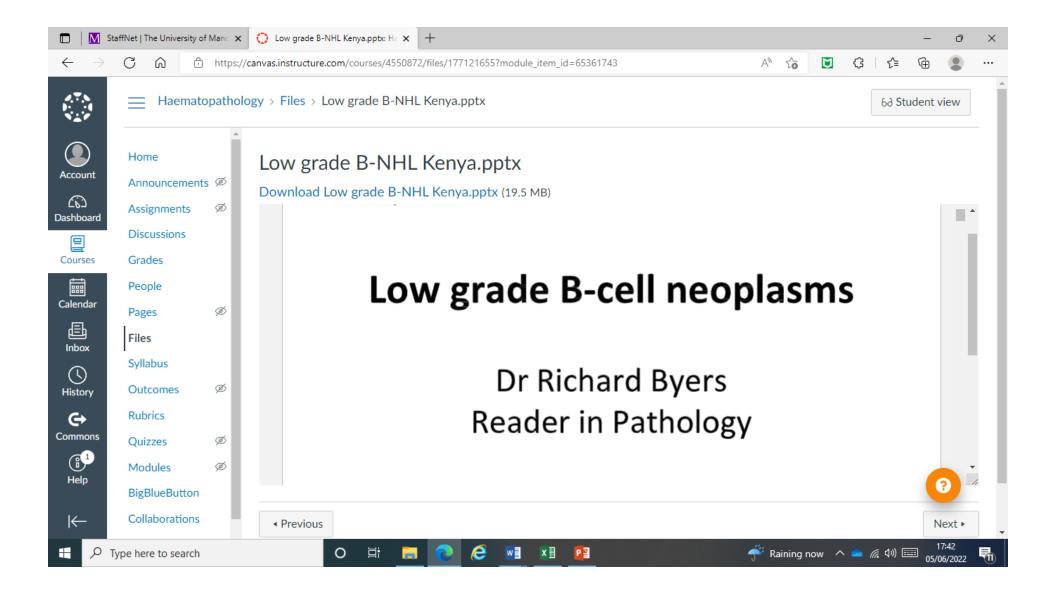
Additional	Comments
Auuliioliai	Comments

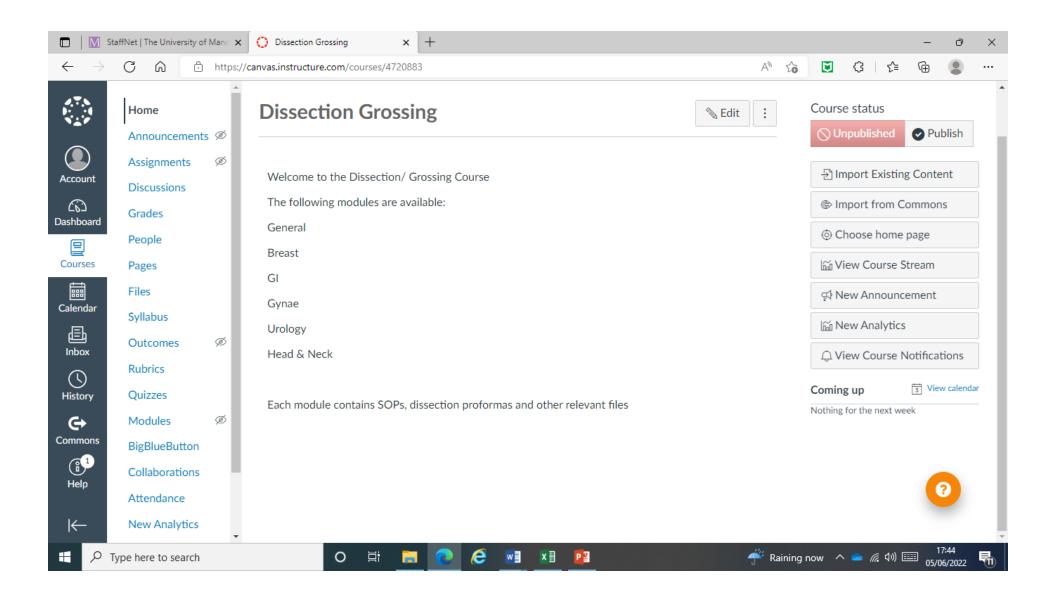
None

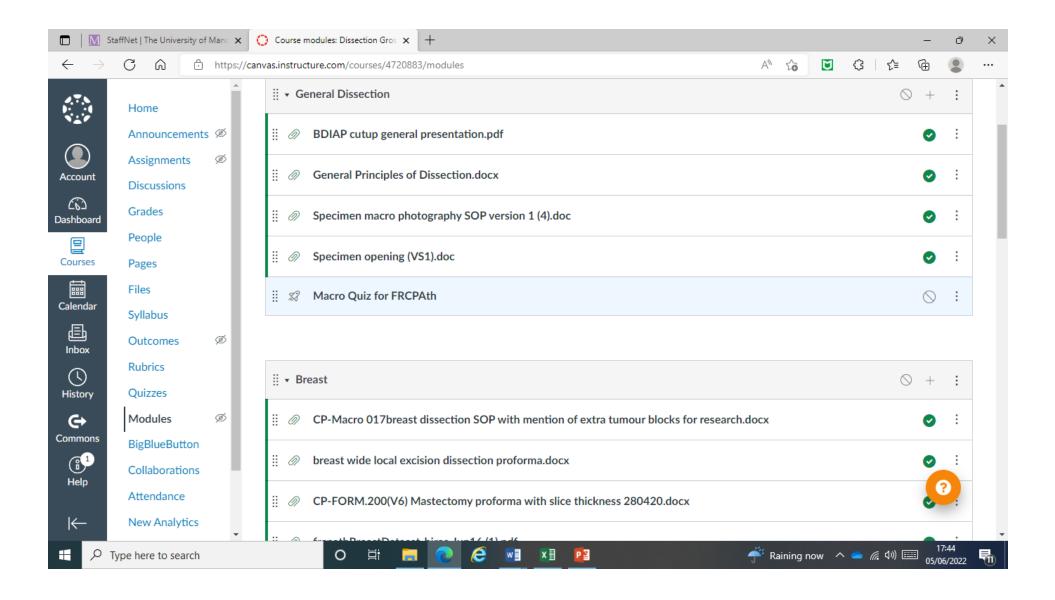
Appendix 1 – Canvas haematopathology and anatomical dissection modules (example screenshots)

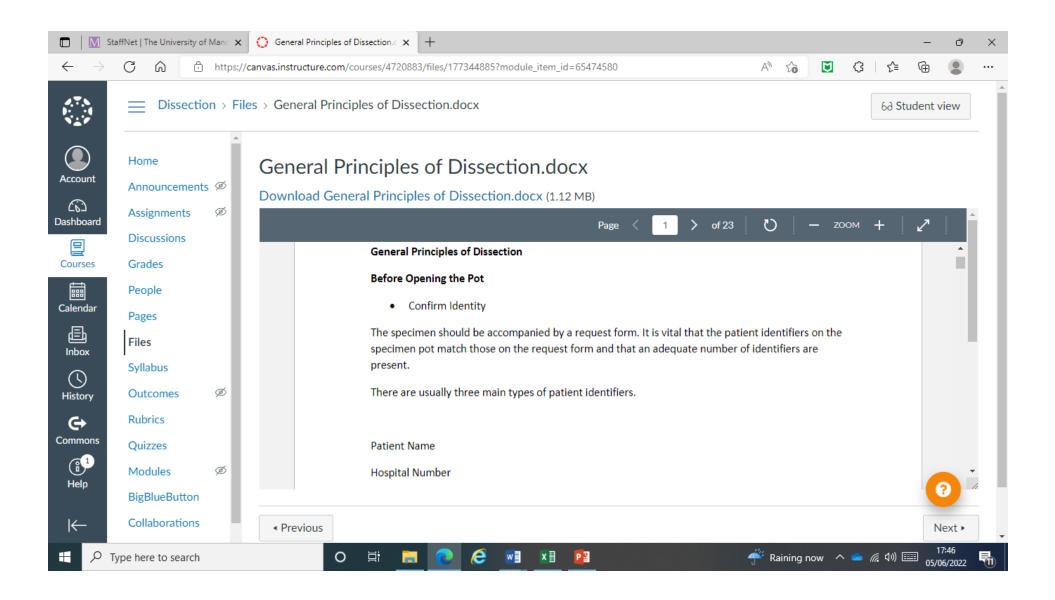


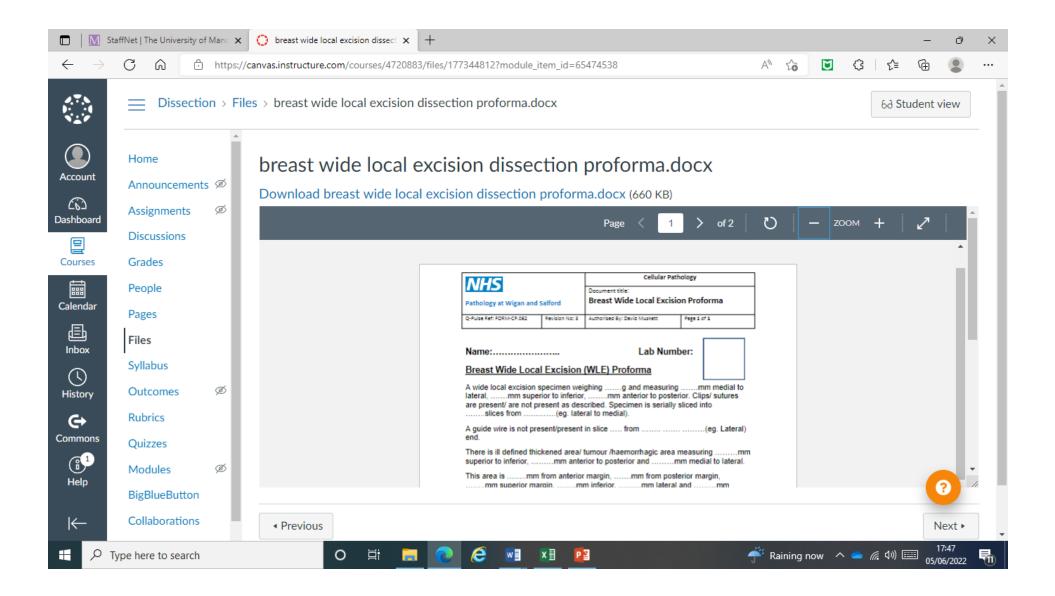












Appendix 2 – Teaching timetable

	April				
	25	26	27	28	29
AM	Introduction & normal lymph node		low grade B-NHL	High grade B-NHL	
PM	NW EQA slide review		Slides & BLPG 1	Slides & BLPG 2	
	May				
	2	3	4	5	6
AM	PUBLIC HOLIDAY - LABOUR DAY	PUBLIC HOLIDY - EID	Hodgkin lymphoma	T-Cell NHL	CME Seminar
PM	PUBLIC HOLIDAY - LABOUR DAY	PUBLIC HOLIDY - EID	Slides & BLPG 3	Slides & BLPG 4	
	9	10	11	12	13
AM		Normal bone marrow	Myeloproliferative disosrders	Myelodysplasia	
PM		BONE MARROW FAILURE SYNDROMES	Slides & BLPG 5	NW EQA discussion meeting	
	16	17	18	19	20
AM		AML and ALL	MDP / MDS molecular testing	Myeloma	
PM		Slides and BLPG 6	Slides & BLPG 7	Case discussion and feedback	

Appendix 3 – Teaching platform options appraisal for Moodle, Canvas or Blackboard

	Moodle	Canvas	Blackboard
Product Name	https://moodle.com/solutions/moodlecloud/	https://www.lmspulse.com/2021/how-to-install-canvas- lms/	https://help.blackboard.com/Blackboard App
Basic Overview	Open-source learning management solution that is based on a modular design. It enables administrators and teachers to build their own courses using the plug-in. It gives a robust set of functionalities and a collaborative learning environment that help facilitate both teaching and learning.	Open-source LMS that is one of the fastest-growing systems today. It is specifically created for educational institutes - for grades K-12 and higher education. This platform aims to better engage users in their teaching and learning processes. And ideal for blended learning	Modern, intuitive learning management model that facilitates virtual platforms for learning. It delivers a course management system that has an open architecture. You can combine the system with a student information system and authentication processes.
Free plan	No	Yes	No
Integration capability	Integrates with SIS, Microsoft 365, Google, and Dropbox.	Integrates with SIS and Microsoft 365 by default. However, Dropbox and Google integration requires configuration.	Integrates with SIS, Microsoft 365, and Dropbox. However, Google apps integration requires additional app.
Offline Learning	No	Yes	No
Installation method	Cloud version needs no installation but an installer is required for a local onsite version.	Cloud version needs no installation but an installer is required for a local onsite version. Installation can be difficult and requires a Linux server.	Cloud version needs no installation but an installer is required for a local onsite version.
Administrative features	Admin tools enable unparalleled granularity, but are less intuitive than other platforms.	Admin tools are easy to use but granularity is lacking.	Admin tools are easy to use but granularity is lacking.
Course development features	Course creation tools are intuitive. Repository system can be hard to navigate, although uploading files and SCORM packages is possible.	Course creation is easiest on Canvas. Uploading files to repositories is easy, and the Course Import Tool enables cross- platform uploads.	Course creation tools are intuitive. Uploading files to repositories is easy, although sharing files across courses requires a paid upgrade.
Assessment method	Assessment tools are extensive and highly accurate, but the Gradebook can be hard to learn.	Assessment tools are easy to learn, and a good level of customization is possible.	The test feature is intuitive, although the Grade Center can be unwieldy.
Communication	Various communication tools (e.g., live chat, discussion forums, etc.) and notifications are available	Various communication tools (e.g., live chat, discussion forums, etc.) and notifications are available	Various communication tools (e.g., live chat, discussion forums, etc.) and notifications are available
Devices and Operating System compatibility	Available on all major operating systems, Android and Apple mobile apps available	Available on all major operating systems, Android and Apple mobile apps available	Available on all major operating systems, Android and Apple mobile apps available