

## Introduction

As part of a remote learning ocular anatomy (OA) course, customized instructional videos with active-learning strategies were created to deliver the course content. Using basic editing software and a video streaming platform, the instructor-created videos incorporated supplemental features including clinical images and videos, interactive applications, instructor-led drawings, self-assessment questions, pop-up text emphasis, break-away images for review, and free-hand annotations to enhance student understanding and engagement. This study examined the perspectives of students who completed OA using the videos and examines the specific video features that best supported successful learning.

## Methods

This study examines the perspectives of first-year optometry students who completed OA in Winter quarter 2020-21 using the asynchronous instructional videos and examines the specific supplemental video features that best supported successful learning. One hundred seventeen first-year optometry students were invited to participate in a survey study. The survey questions addressed the overall format of instructional video format and the preferred features that promote successful learning. (Figure 1) The anonymous survey was administered in person, privately, using Survey Monkey®, and most question responses used a Likert scale, ranking, or rating of choices.



**FIGURE 1**  
Use the QR code to view actual survey questions posed to the first-year students.

## Results

Out of 117 possible participants, 61 first-year students participated in the anonymous survey. On a 5-point Likert-scale, 90% and 87% of students strongly agreed or agreed that the instructional videos were engaging and efficient, respectively. Ninety percent of students affirmed that the instructional videos allowed for successful learning of the course material, with 88% reporting a satisfactory learning experience (strongly agreed or agreed). Lastly, 84% of students strongly agreed or agreed that the instructional video format should be used to deliver OA course content in the future.

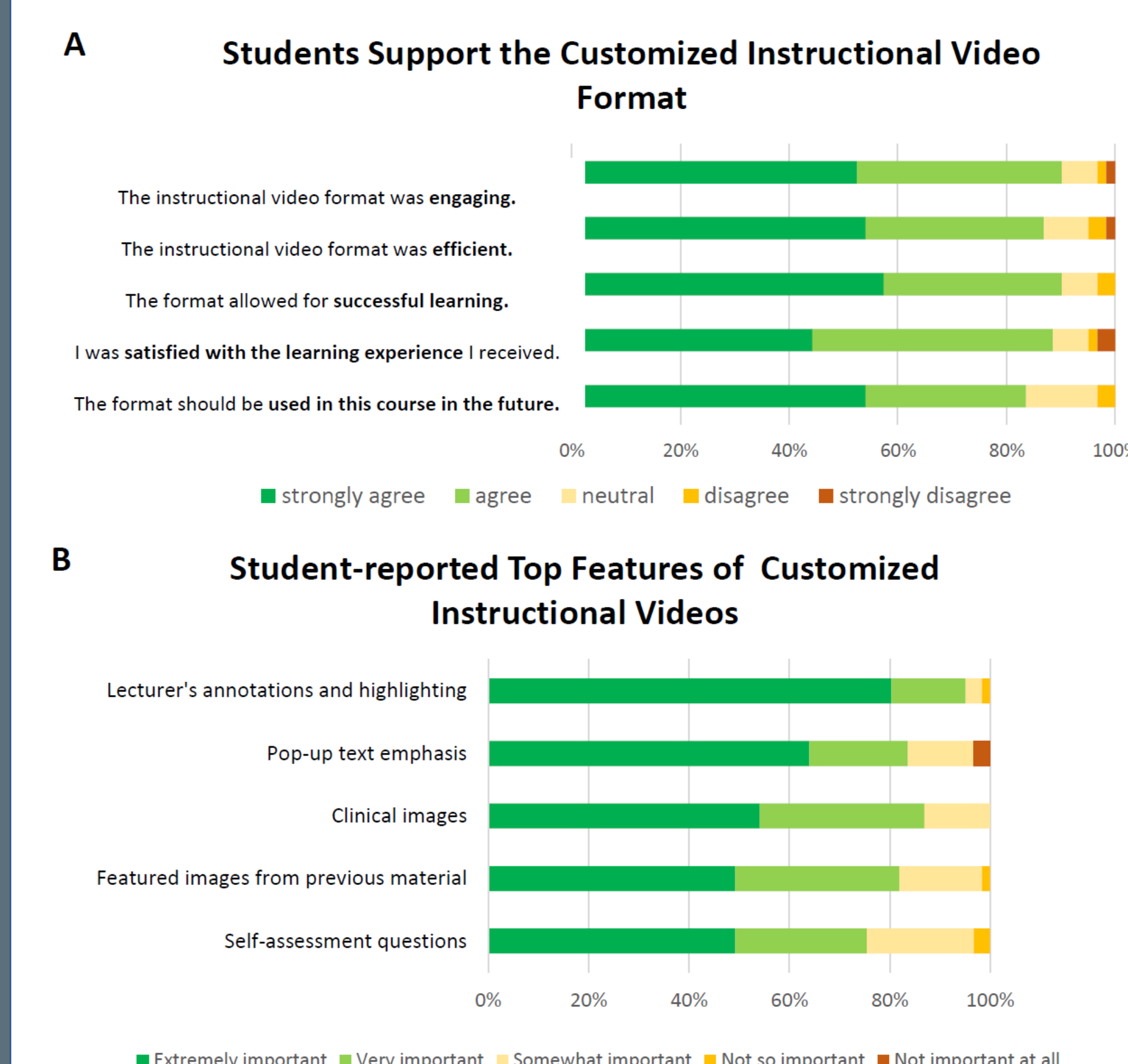
## Instructional video features that support successful learning:

- Instructor annotations
- Pop-up text emphasis
- Supplemental images/videos
- Embedded review images
- Self-assessment questions



Scan the QR code for a full version of the poster.

The top 5 features of the instructional videos rated as either extremely or very important for enhanced understanding were the lecturer's annotations (95%), clinical images (87%), pop-up text emphasis (84%), featured images from previous material (82%), and self-assessment questions (75%). Although interactive video tasks such as instructor-led drawings were not monitored or graded, students reported they completed the majority of these activities (mean 79%, median 90%), suggesting successful student engagement. (Figure 2)



**Figure 2.** Students (n=61) demonstrate support for customized instructional videos and assess their most important features for successful mastery of the course content. Support for the instructor-created videos was determined using a 5-point Likert scale from strongly agree to strongly disagree, assessing the engagement, efficiency, success, and overall satisfaction with the video format (A). Supplemental features of the videos were assessed on a 5-point Likert scale from extremely important to not important at all. The top 5 features are shown (B).

## Conclusion

The overwhelmingly positive response to the customized instructional video lecture format suggests it can be used successfully in higher education. The most important supplemental features identified by the students can guide instructors in creating engaging instructional videos that efficiently deliver course content remotely for enhanced understanding. Instructional videos can support nontraditional lecture methodologies such as those used in blended course design, courses taught by instructors from outside institutions, and those designed to meet the needs of fully remote students.

## CONTACT

Elizabeth Wyles, OD

[ewyles@ico.edu](mailto:ewyles@ico.edu)

[www.ico.edu](http://www.ico.edu)