Creating YouTube Shorts

KYMATYC 2023

# Pre-Production – Planning

1. Find the problem or idea
2. Use OER materials if possible
   1. Use proper citation
   2. Helps if video will be public
3. Write script
   1. Keeps you on topic
   2. Used for captions later
   3. Half a page is enough
   4. Write in Microsoft Word
   5. Save as text (.txt)
4. Create Background
   1. PowerPoint works well
   2. Topic at top
   3. Leave room for captions
   4. Set PowerPoint to Portrait:  
      Design -> Slide Size -> Custom -> Portrait
   5. Dark background and white text  
      Design -> Format to taste
   6. Fonts
      1. Body – Cambria
      2. Headings – Anything easy to read
   7. Add citation information as needed
   8. Save slide as .png image

# Production – Recording

1. Minimum Equipment
   1. Cell phone
   2. Wired Microphone
      1. USB-C or TRRS
      2. Adapter required for iPhone
   3. Camera app
      1. Focus lock capability
      2. Open Camera for Android
      3. iPhone ???
   4. Tripod and Camera Mount
      1. Basic from Walmart good enough
2. Set video resolution to square aspect ratio
   1. Best for adding background and captions
3. Lock focus on background
4. Set exposure compensation to +0.5 for light background
5. Record
   1. Speak clearly
   2. Plan to edit out silence and mistakes

# Post-Production – Editing and Captioning

1. Editing with Shotcut
   1. Open Source and Free
   2. Works on multiple operating systems
   3. Available at PortableApps.com
2. Open new project
   1. Video Mode -> Non-Broadcast -> Vertical 30 fps
3. Import video clip and background
   1. Background on bottom track
   2. Video on upper clip
4. Add filters to top track
   1. White balance to set white point from background
   2. Size and position to match background
5. Edit video clip
   1. Cut out silence
   2. Speed up any silent part you want to keep  
      Properties -> Speed -> Adjust to taste
   3. Make sure total length is less than 60 s
6. Normalize Audio
   1. High-Pass filter - 60 Hz cut off
   2. Normalize: Two Pass filter -16 LUFS
   3. Limiter - -3dB limit
   4. Copy to every clip with audio
   5. Copy and paste filters to speed up
   6. Do not apply to silent clips
7. Export
   1. H.264 High Profile
8. Captioning with Vrew
   1. New Project -> Start with Video
   2. Load Manuscript -> pick .txt file from script
   3. Split clips if subtitles are too long
   4. Export subtitles as .srt file
   5. Export video  
      Quality - High

# Sharing

1. Upload to YouTube  
   Create -> Upload File -> Pick exported video
2. Descriptive Title
3. Video Description
   1. Add as many elements as possible
   2. Reference textbook and chapter
   3. Add OER citation if needed
4. Playlists
   1. One for each class and topic
   2. Playlists let you organize into a bigger narrative
5. Category – Education
   1. Type – Problem walkthrough
   2. Level – College
6. Link to Blackboard
   1. Create Document
   2. Add HTML
   3. Copy Embed HTML into document
   4. Can add TikToks and JavaScript apps too

# Software Links

* Shotcut video editor:  
  https://www.shotcut.org/download/
* PortableApps:  
  https://portableapps.com/download
* Vrew video editor: https://vrew.voyagerx.com/en/

# Where to Find Me

* Files: <https://github.com/Prof-Sears/KYMATYC-2023>
* YouTube: <https://www.youtube.com/@navigatingcollegemath>
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