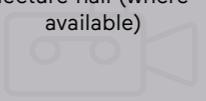
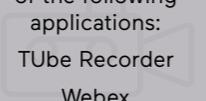
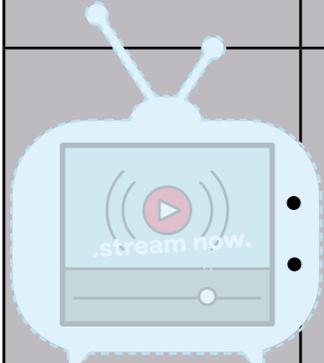
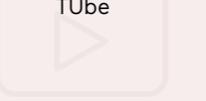
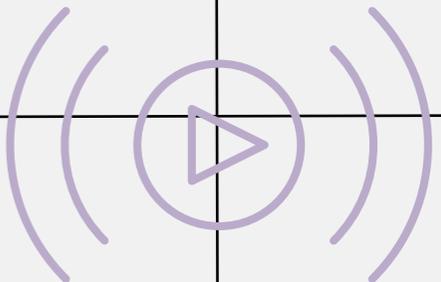


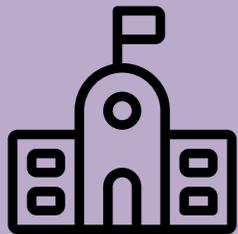
# #05 SERVICES FOR TEACHING AT THE TU GRAZ

Recording – Hybrid Teaching – Streaming – Video Conferences

Higher Education

Options	<p><b>1</b></p> <p>Recording via the infrastructure in the lecture hall (where available)</p> 	<p><b>2</b></p> <p>Recording with own computer and one of the following applications: TUBE Recorder Webex OBS</p> 	<p><b>3</b></p> <p>Recording with mobile TU equipment</p> 	<p><b>4</b></p> <p>Recording by VA Team / Studio recording at the LLT studio</p> 
Services Needed (LLT/ZID)	<p><b>LLT (VA):</b> Request support in using the system, if necessary</p> <p><b>LLT (ID):</b> To have TUBE Drop activated in the TeachCenter, contact <a href="mailto:tc@tugraz.at">tc@tugraz.at</a></p>	<p><b>LLT (ID): TUBE Drop</b> Have TUBE Drop activated in the TeachCenter by writing an email to <a href="mailto:tc@tugraz.at">tc@tugraz.at</a></p>	<p><b>ZID, LLT VA:</b> Lending of mobile equipment (different options, depending on the setting)</p> <p><b>LLT (VA):</b> Request on-site support by the VA team via email to <a href="mailto:tube@tugraz.at">tube@tugraz.at</a></p>	<p><b>LLT (VA):</b> In any case, contact the VA team via <a href="mailto:tube@tugraz.at">tube@tugraz.at</a></p>
Number of Participants	<p><b>Face-to-face:</b> Depending on the size of the lecture hall and the number of participants allowed</p>	<p>Depends (can also take place in a lecture hall)</p>	<p><b>Face-to-face:</b> Number of students depends on the number of participants allowed in the lecture hall</p>	<p>Not possible to have students participate directly</p>
Interaction	<p><b>Face-to-face:</b> As usual, by raising your hand, feedback etc.</p> <p><b>Online:</b> No interaction with students; adding interactive elements with H5P possible upon request</p>	<p>No interaction with students, adding interactive elements with H5P is possible</p>	<p><b>Face-to-face:</b> as usual via raising your hand, feedback, etc.</p> <p><b>Online:</b> No interaction; adding interactive elements with H5P is possible</p>	<p>No interaction with students, adding interactive elements with H5P possible</p>
Other		<p>Editing videos with Camtasia is possible (request license from ZID via email)</p>	<p>Not connected to LLT streaming servers. Use: Recording the whiteboard in smaller rooms. Editing videos with Camtasia license possible (request license from ZID via email)</p>	<p>Availability of this option depends on available resources</p>

<p><b>5</b></p> <p>Hybrid Teaching using Webex or ZID hardware</p> 	<p><b>6</b></p> <p>Livestreaming from the lecture hall using TUBE</p> 	<p><b>7</b></p> <p>Livestreaming from home using OBS via TUBE</p> 	<p><b>8</b></p> <p>Videoconference with BigBlueButton via TeachCenter</p> 	<p><b>9</b></p> <p>Video conference with Webex</p> 
<p><b>ZID:</b> Hardware and software support, Cisco or Avaya system installed in the lecture hall</p>	<p><b>LLT (VA):</b> Request livestreaming via VA form</p>	<p><b>LLT (VA):</b> OBS software with configurations, see manual on TU4U</p>	<p><b>LLT (ID):</b> Have activated in the TeachCenter via email to <a href="mailto:tc@tugraz.at">tc@tugraz.at</a> (please include date, time and number of participants); Support during use = ZID, technical support</p>	<p><b>ZID:</b> Software Support</p>
<p><b>Face-to-face:</b> Depending on size of lecture hall and number of participants allowed</p> <p><b>Online:</b> see Webex</p>	<p>In theory no limit, in practice restricted by server streaming capacities</p>	<p>unlimited (see option 6)</p>	<p>max. 100 (didactically recommended 50)</p>	<p>For large events, max. 1000 participants; with more than 350 participants, livestreaming or recording is recommended</p>
<p><b>Face-to-face:</b> as usual, by raising your hand, feedback etc.</p> <p><b>Online:</b> via chat, video or audio; feedback</p>	<p><b>Face-to-face:</b> as usual, by raising your hand, feedback, etc.</p> <p><b>Online:</b> No interaction; possibly via lecture hall telephone or parallel Webex meeting (requires support of second person)</p>	<p>possibly using feedback or a chat channel</p>  <p><small>More information on feedback can be found in the article „Feed-back“ in the TOOL section.</small></p>	<p>via chat, video or audio; feedback; breakout rooms for group work</p>	<p>via chat, video or audio; feedback</p>
	<p>Due to the bandwidth, the number of participants is limited to a maximum of five livestreams</p>	<p>Due to the bandwidth, the number of participants is limited to a maximum of five livestreams</p>		



# #05

## SERVICES FOR TEACHING AT THE TU GRAZ Recording – Hybrid Teaching – Streaming – Video Conferences

Author	Clarissa Braun
Date of Publication	09/2020
License	 This work is licensed under a <a href="https://creativecommons.org/licenses/by-sa/4.0/">Creative Commons Attribution 4.0</a> (except for the icons used)

### Definitions



#### Streaming

Live transmission in real-time via TU's own streaming server.



#### Recording

Recording a course or parts of a course.



#### Video conference

Synchronous exchange of information for image and sound transmission. In addition to suitable software, at least a camera and a microphone as input devices as well as a screen and a loudspeaker or headphones as output devices are needed.

#### Hybrid Teaching vs Blended Learning



Hybrid teaching means teaching face-to-face, but where a part of the students is connected online via a video conferencing system and thus actively participates in the event. Blended learning refers to a complete teaching concept or a form of learning that takes place over the course of a semester or several courses. It is a didactically meaningful combination of traditional face-to-face teaching with online units. The concept combines the effectiveness and flexibility of electronic forms of learning with the social aspects of face-to-face communication and, where applicable, practical learning.



#### H5P

H5P is the abbreviation of HTML5 Package, a free and open source software for creating interactive (learning) content for teaching. This TeachCenter feature can be used to create interactive videos, tests and presentations.

### Service centers



**LLT - Educational Technology**  
([elearning@tugraz.at](mailto:elearning@tugraz.at))

**ZID - IT services**  
([it-support@tugraz.at](mailto:it-support@tugraz.at) / [videokonferenz@tugraz.at](mailto:videokonferenz@tugraz.at))

**LLT (VA) - Team Video and Animation / Educational Technology** ([va@tugraz.at](mailto:va@tugraz.at) / [tube@tugraz.at](mailto:tube@tugraz.at))

**LLT (ID) - Team Instructional Design / Lehr- und Lerntechnologien** ([tc@tugraz.at](mailto:tc@tugraz.at))

<sup>1</sup> Definitions based on and translated from this article: <https://elearningblog.tugraz.at/archives/6005>