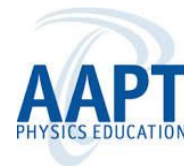


## AAPT supports efforts to increase the effectiveness and accessibility of remote STEM instruction due to COVID19: *Essential for the US STEM Workforce*



### Actions:

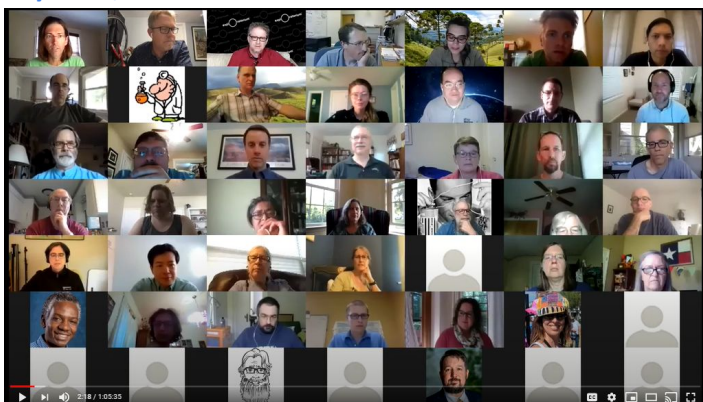
- Increase federal support to the states especially earmarked for K-20 education so that states can support both K-12 and college education in these challenging times when educators have to follow remote or hybrid formats.
- Increase funding for the National Science Foundation to develop and evaluate teaching, learning and assessment tools suitable for these challenging times. These tools and findings of research (e.g., how to use certain technologies pedagogically and formative assessment tools) are likely to be employed and transform K-20 education even after the pandemic is over.
- Increase funding for the Coronavirus Aid, Relief, and Economic Security (CARES) Act providing families with needed federal support so that families can allocate resources to their students' education.

The American Association of Physics Teachers (**AAPT**) values efforts to create effective, inclusive STEM classrooms and encourages Congress to support efforts and funding to support educators (K-20) in creating effective, accessible remote learning opportunities, guided by research.

Many K-20 educators teaching science around the country have suddenly found themselves transitioning courses to online and hybrid formats. Teaching and learning in these novel environments present significant challenges for students, teachers, and parents and guardians, including:

- Equity issues have been magnified as many students do not have necessary resources such as access to a computer, reliable internet connection or a quiet room at home or required time due to being sick or caring for sick family members;
- Additional time is needed for educators to plan their remote instruction, engage in professional development and training to use technology effectively; In addition, students often need training in how to effectively participate and engage in online and hybrid learning.
- Current assessment tools are inadequate and inappropriate in these settings and there is an urgent need for developing and evaluating effective low-stakes, formative assessment tools and approaches (instead of high-stakes assessment) and training instructors to use them effectively in remote settings.

### July 2020, AAPT Virtual Coffee Hour



The figure at left shows committed Physics Teachers, who are members of the AAPT, from around the world, sharing ideas on how best to support their students during the pandemic. This session focused on conducting laboratory work in remote settings and had over 60 participants.

Each week members met at these virtual coffee hours to co-think, learn from each other, and collaborate on effective teaching. Instructors all over spent countless hours developing materials and sharing ideas with different education communities to provide the best possible learning spaces for students.

### Resources and references:

<https://www.physport.org/recommendations/Entry.cfm?ID=119906>

[http://www.ascd.org/publications/educational\\_leadership/summer20/vol77/num10/Why\\_COVID-19\\_Is\\_Our\\_Equity\\_Check.aspx](http://www.ascd.org/publications/educational_leadership/summer20/vol77/num10/Why_COVID-19_Is_Our_Equity_Check.aspx)

AAPT ([aapt.org](http://aapt.org)) is a professional membership association of scientists dedicated to enhancing the understanding and appreciation of physics through teaching. AAPT members include K-12 and Higher Education educators around the world.