

Active Learning for Budding Entrepreneurs: Lessons Learned from Going Virtual in 2020

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Motivation:

The growth of biomedical entrepreneurship within academia is driven by the desire of scientists to have their innovative, medically related discoveries benefit patients. Research scientists do not have the appropriate skills to translate their ideas into successful business ventures. This is particularly true in the Institutional Development Award program (IDeA)-defined states.

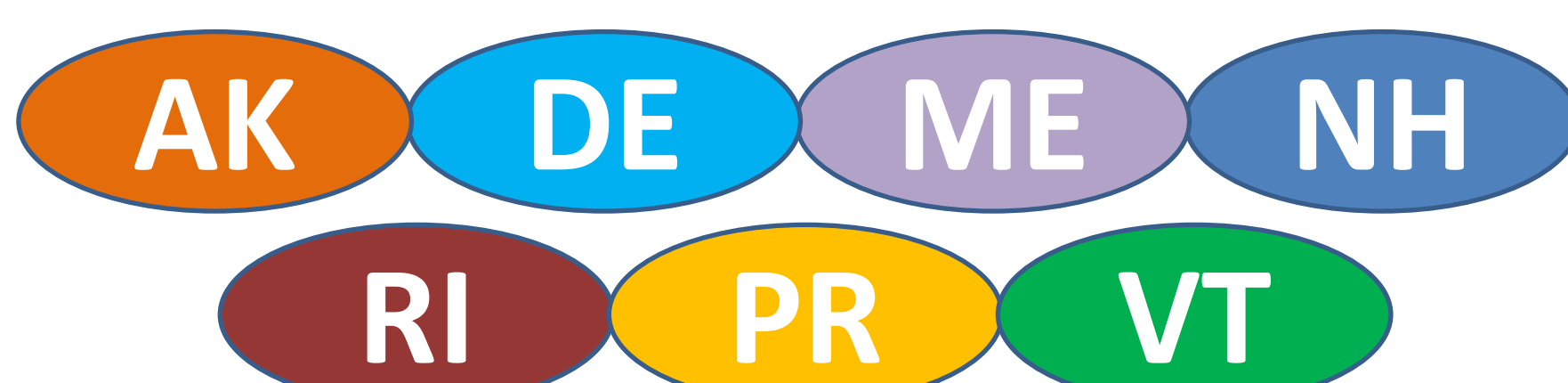
Approach:

The I-Trep program provides education and skills development in entrepreneurship to facilitate generation and competitiveness of start-up biomedical businesses and to foster economic growth in IDeA states. Our flagship offering is a intensive summer course in biomedical entrepreneurship.

Intensive Biomedical Entrepreneurship Summer Course Topics



Participating States



Participants

- 3 In-person cohorts 2017-2019 (n=51), Virtual Pilot (n=12)
- Wide range of career stage and business experience

Course Design

- Team-based and organized by participant technologies
- AM Lecture>Expert Seminar>PM Team work
- Teams give final pitch and receive outside expert feedback

Evaluation

- Pre/Post course surveys
- Retrospective survey (74% response rate) and then selected interviews (37%)

Outcomes

- Retrospective feedback was highly positive: 94% found the course to be applicable to their careers; 86% rated it as very good or excellent; 91% reported the course helped to provide foundational knowledge and develop skillset in biomedical entrepreneurship

Experimental Virtual Course

- Opportunity to pilot virtual course due to the pandemic
- Recruited participants (n=12)
- Retained AM Lectures and afternoon Seminar with experts
- Asynchronous team work was expected to allow learner flexibility

Lessons Learned

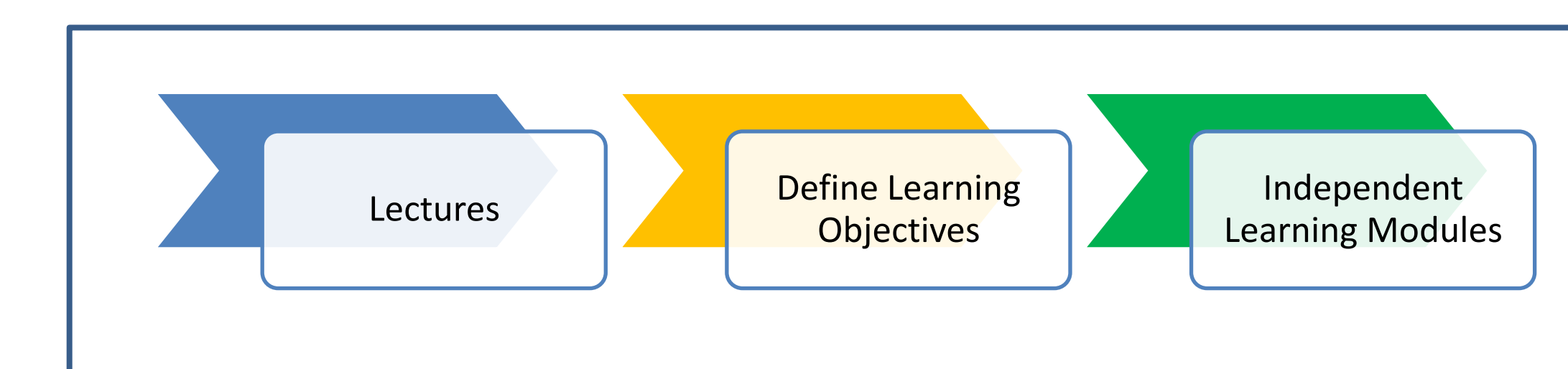
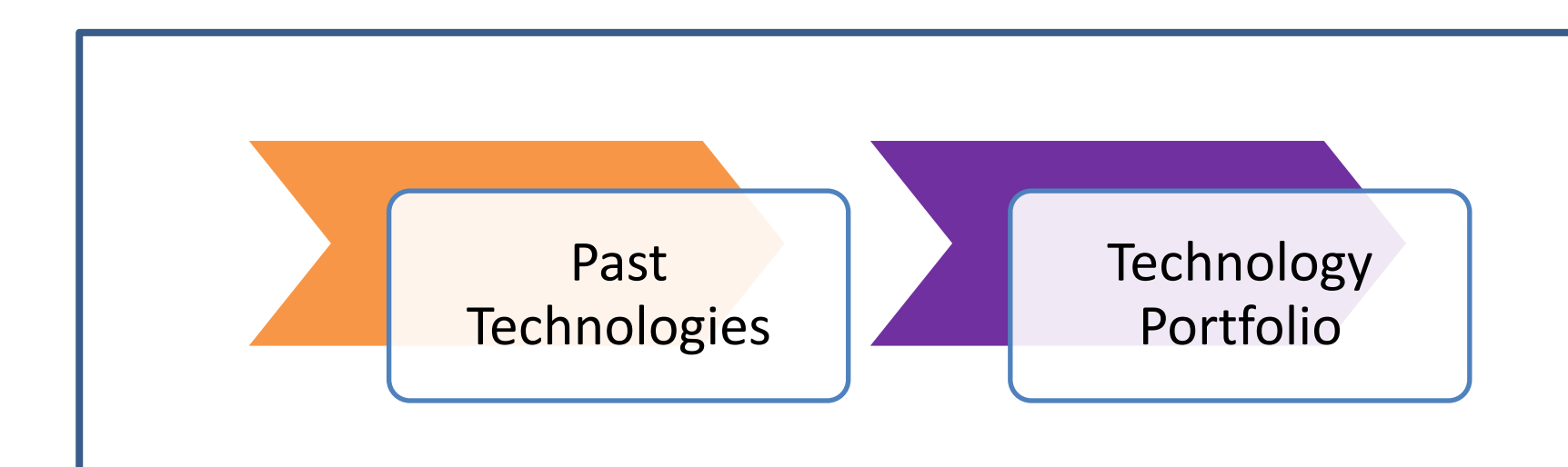
- Similar to our in-person course, participants reported an increase in confidence as an entrepreneur
- Comments however indicated issues/shortcomings with the virtual format:
 - Time spent in lectures took away time for team work
 - Range in experience was challenging
 - Difficulty in engaging with the course materials in such a short timeframe

Conclusions

- ❖ Overall, the team-based active learning provided is very effective with this unique set of learners
- ❖ The virtual delivery of the course is possible but it must be redesigned to optimize the use of Zoom time

Contemplated Course Redesign

- Focus on beginner level of experience
 - Convert past course technologies into Technology Portfolio
- Convert lectures to independent learning modules
- Convert from a daily schedule to a weekly one to allow participants to have more time to engage with the course material and prevent Zoom burnout
- Each week will include the independent learning modules, individual assignments, group assignments (limit to three hours Zoom time)



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