Student Guide - *How to optimise technology for enhanced virtual team performance.*

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Introduction

This guide aims to enhance the performance of remote student groups. Upon evaluating a survey undertaken by students about remote group work, it is evident that most students believe they have the necessary technology to work as part of a virtual team. Our group has identified this as an opportunity and as a result, we have created a guide to facilitate students in optimising technology at every stage of team development. Virtual teams rely on technology to connect with each other (Lee-Kelley et al., 2004). According to Corbitt et al (2004), teams pass through numerous stages, forming, storming, norming and performing. This model was revised in 1977 and an additional 'adjourning' stage was added (Bonebright, 2010). Throughout this guide we will discuss how to best optimise technology at each of these stages.
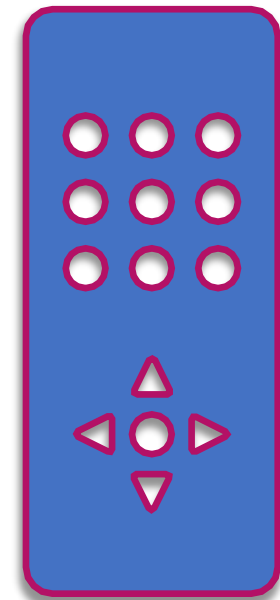
1. Forming Stage

When teams are created, they enter the forming stage (Lee-Kelley et al., 2004). They begin to understand each member's value and how the work of each individual impacts and is influenced by the work of others (Corbitt et al., 2004). It is said to be more challenging for virtual groups as they are missing the face-to-face interaction and therefore should be completed synchronously through videocalls (Corbitt et al., 2004). Virtual groups should make a greater effort to get to know each other as it can develop "swift" trust which will make the team more effective. Swift trust is a concept for temporary teams who have a clear objective and finite lifecycle (Coppola et al., 2004). Research suggests that virtual teams can experience high trust levels if "swift" trust is established through proactive communication (Corbitt et al., 2004).We have identified numerous different technologies to help group members to break the ice and get to know each other. We recommend playing '**Skribbl'** as a way of breaking the ice among group members to make them more comfortable with their teammates. *During this stage, meetings should be held through '**Zoom'** or '**Microsoft Teams'** where students can hold videoconferences with their group.*
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Skribbl

▶ Virtual team game that helps increase trust and enhance communication

▶ Pictionary where multiple players can join and have fun.
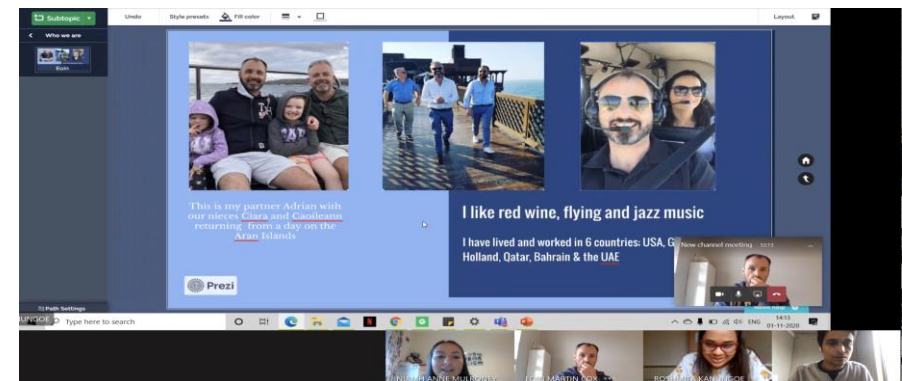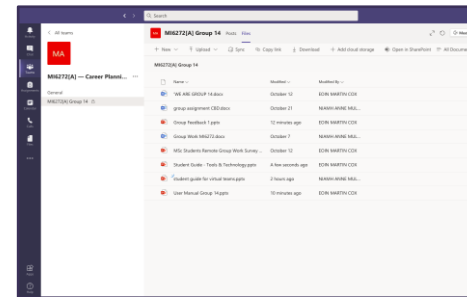
▶ Great ice-breaking game for virtual teams.

Microsoft Teams

► Videoconferencing, audio calls and screen sharing.

► File sharing can allow each group member to work on the same document.

► 'Together Mode' provides group members with the opportunity to share a background to feel as if they are in the same room.

www.microsoft.com/en-ie/microsoft-365/microsoft-teams

Zoom

- Cloud platform for video and audio.
- Opportunity to share content with others.
- Available on desktops, mobile devices and telephones.

zoom.com

2. Storming Stage

Similarly to the forming stage, the storming stage can be more complex for virtual teams and should be completed synchronously (Corbitt et al., 2004). Conflict may arise due to the lack of face-to-face cues (Ayoko et al., 2012). Virtual teams should opt for richer forms of communication such as videoconferences to resolve interpersonal issues that may be sensitive (Hill and Bartol, 2018). Having clear and open communication can help to prevent conflict from arising.

Video conferences through Microsoft Teams or Zoom is most favourable as email and texts may result in miscommunications and misinterpretations.
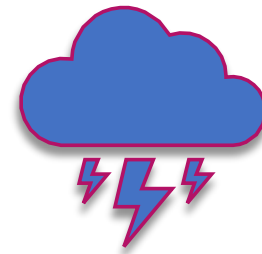
Prezi Present

Create moving, zooming presentations that grab attention and keep it.

Prezi Video

Appear right alongside your content while presenting to your audience.

Prezi Design

Make stunning interactive charts, reports, maps, infographics, and more.

Allows you to co-create and co-edit documents or visuals in real-time with your team members

Prezi

▶ Smart branding and easily customizable images, charts, and layouts let you make beautiful presentations you'll be proud to call your own.

▶ Pre-designed presentation "building blocks" in lots of useful formats. Just drag, drop, and customize

▶ Stunning interactive visual experiences that let you adapt on the fly and zoom in on the topics that matter most to any audience.

loom.com
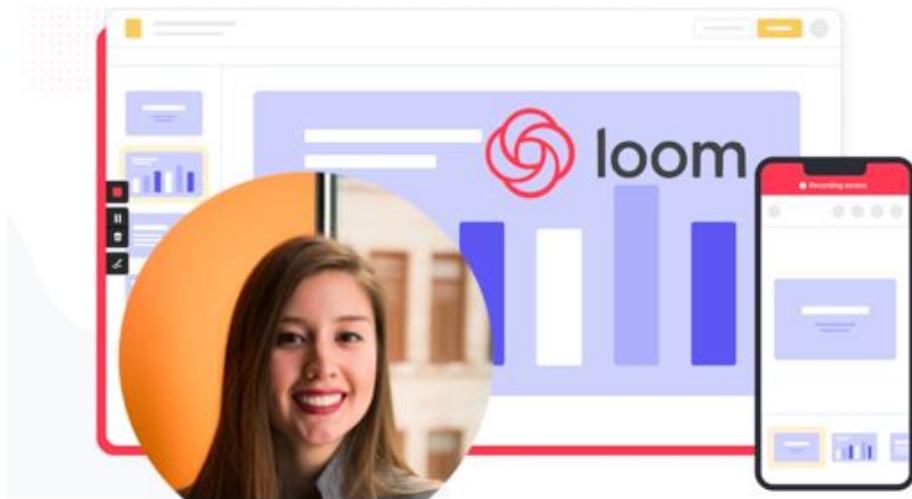
Loom

- ▶ Video is a simple to use screen and video messaging tool

- ▶ Loom is not a video conferencing tool unlike Zoom

- ▶ Just record a quick video of yourself (five minute max for the free version) and share it with your team

- ▶ Great way of getting your point across or talking through a situation. Or perhaps, give your project updates if you are unable to join a meeting .

- ▶ It can also help avoid miscommunication and misinterpretation associated with asynchronous communication.

https://conceptboard.com/
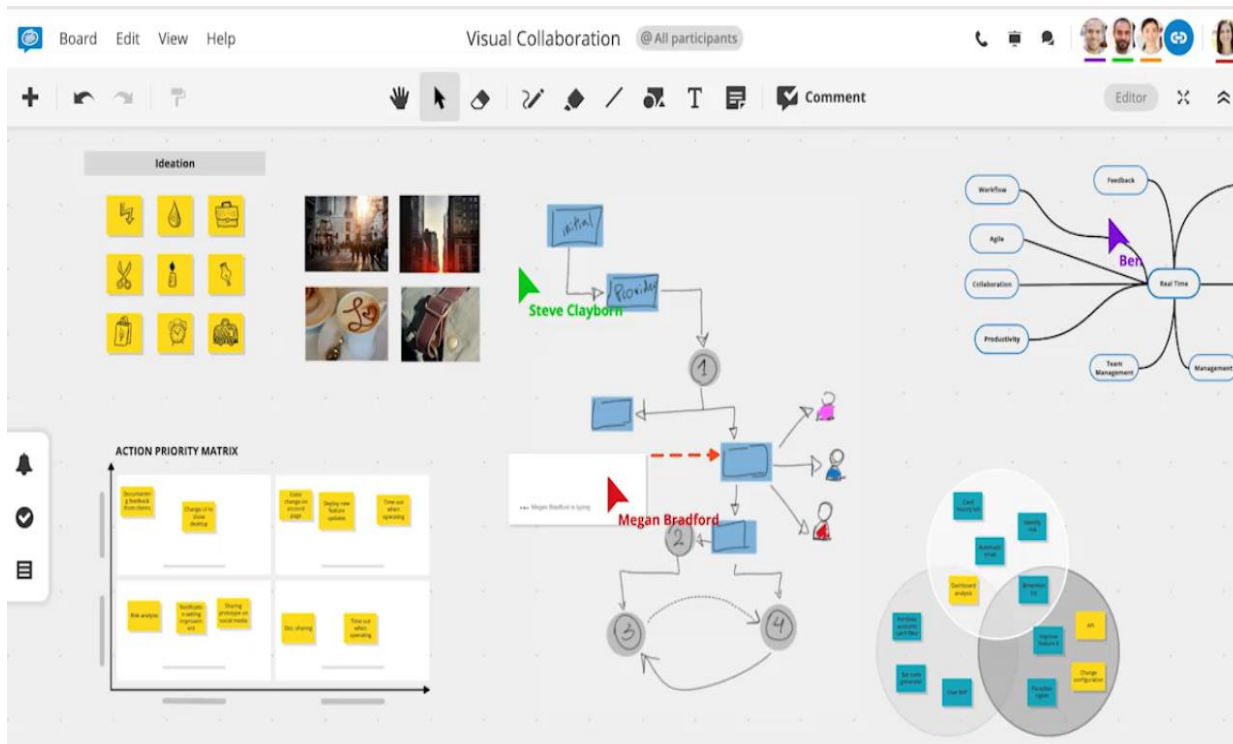
Conceptboard

► Visual collaboration tool

► Conceptboard is a centralized hub for all your content and ideas. No matter how large or complex, manage all your visual projects across one shared workspace.

► Work seamlessly across teams and time zones. Follow actions on-board, screen share, video chat right from Conceptboard.

► Brainstorm, iterate, save and share ideas. Get all your stakeholders on the same page.

3. Norming Stage

▶ According to Chhay and Kleiner (2013), establishing trust among team members creates synergy and results in success for virtual teams. Trust is recognised as an essential factor for team development and performance (Tseng and Ku, 2011). It acts as the glue to team cohesiveness and provides a foundation for effective teamwork. Esmat Ezz (2015) states that trust and communication are interlinked where trust is dependent on the communication of the team. Hill and Bartol (2018), identified methods of improving communication in virtual teams. Firstly, matching the technology to the task is essential. As students have access to a variety of communication technologies, they may choose a tool that they are used to, however there are some technologies that are more suitable for different duties than others. It is recommended that text-based media such as email is favourable when information is flowing in one direction, for example sharing ideas. To complete more complex tasks such as negotiation, more interactive forms should be used such as videocalls (Hill and Bartol, 2018). In summary, for more complex tasks, the closest tool to in-person communication should be used. To avoid miscommunication or misunderstandings while using text-based communications, virtual groups should ensure their messages have the right tone and the important information should be highlighted. Hill and Bartol (2018) further recommend to actively communicate with your team make them aware of changes that may affect the team performance and to choose a channel that promotes inclusivity. Social cues which facilitate relationship building are reduced in virtual teams which can discourage members from sharing ideas and information.

3. Norming stage (contd.)

▶ Considering the factors discussed, we recommend **Microsoft Teams** as it provides teams with the opportunity to voice or video call, share files and schedule meetings. As well as this we would recommend using an informal method of communication for example creating a group chat on **WhatsApp** so members can actively communicate directly with each other. A set time for meetings should be agreed to avoid confusion and miscommunication. Alerts and reminders can be set on teams and on What's app as an additional reminder and group members can track attendance. We have also identified **Slack** as another communication vehicle.
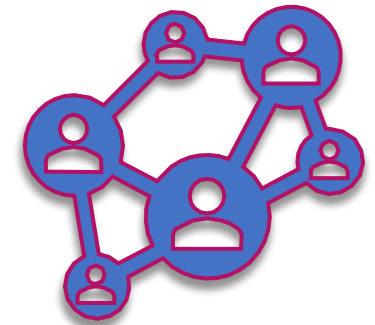
slack.com

Slack

▶ Slack is a multi-channel messaging app

▶ Suited to team and can be used across many platforms

▶ Facilitates more efficient teamwork

Whatsapp

- ▶ Free messaging, voice calls, video calls and voice messages.

- ▶ It is available for Android, iPhone and Mac or Windows Pc, therefore it should cater to all group members.

- ▶ Messages and calls are secured which provides confidentiality to all members.

4. Performing

▶ When working in a virtual team, effective project management is complex and more challenging than collocated projects. Each group member must have clear roles and responsibilities and should be aware of the requirements and deadlines to ensure effective project management (Casey, 2010). We identified **'Trello'**, **'Monday'** and **'Pulse'** to facilitate effective project management for virtual teams.

Trello

Collaboration tool that organises all your group project ideas on a board

▶ **Trello** shows what's being worked on, by whom, and shows the progress

▶ Check out the white board, populated with lists of sticky notes, with each note as a task for you and your teammates

▶ Cost: FREE

https://trello.com/home
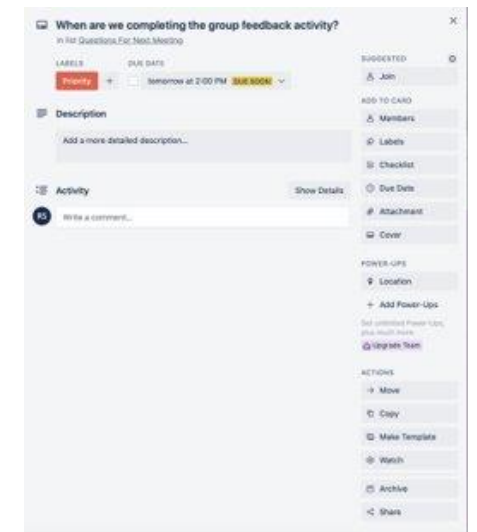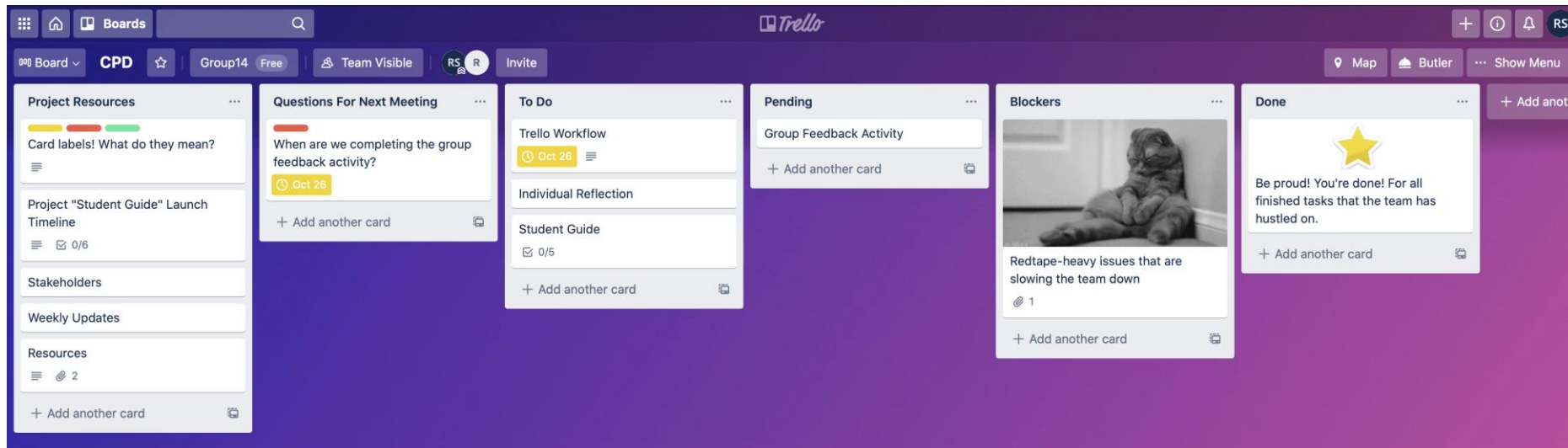
- Trello is a functional tool for project management and offers features like creating Boards that allow users to create a workflow, organize projects, share information, and collaborate with their colleagues . Through these features, it enables the team members to develop a shared perspective on their projects and track their progress.
- "Trello Boards" consist of two major elements: lists and cards. Lists denote workflows or processes. Cards, on the other hand, represent tasks and they can be moved within and across the lists.
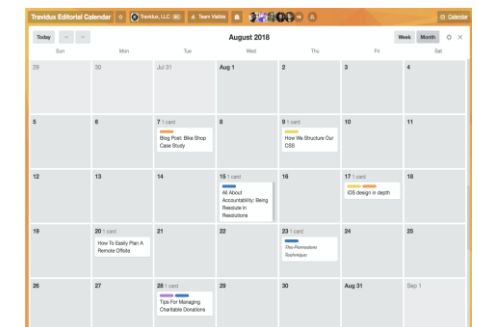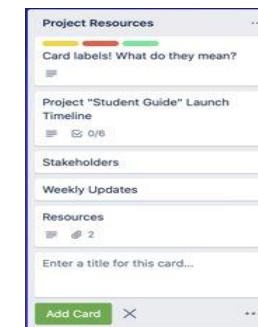
Monday.com

Plan, run and track remote work in one flexible platform.

▶ Fully customizable board for managing your projects, workflows, and everyday work

▶ **Monday** also helps with automating repetitive work and creating visualizations.

▶ Caters to every industry, every department, every process

▶ Can be integrated with Microsoft Teams.

monday.com

Timeline

Team Projects

Sales pipeline

When an **email** is received create a **new lead** in **Sales pipeline**

▶ View data as a map, calendar, timeline, kanban, and more

▶ Automate the repetitive work in seconds so you can avoid human error and focus on what matters

https://pulse.red/

Pulse

▶ Time tracking tool

▶ Interface is clear and intuitive for both users and managers. Just start tracking time spent on tasks.

▶ No useless infographics; stay focused on the main things without distraction.

▶ You will see if the project has gone over the timing budget at any stage.

▶ Monitor who is currently working on particular projects and tasks.

▶ Naturally simple reports of the hours spent by each team on every project.

▶ 30 days free trial for Teams, free for individual user.

5. Adjourning Stage

▶ Tuckman's model was revised by Mary-Ann Jenson in 1977 and an additional, 'adjourning stage' was added. This is the final stage of team development (Bonebright,2010). During this stage, the team may terminate upon project completion or reaching its goals, or it may adjourn gradually (Dakrory and Abdou, 2009). Team members must recognise both individually and collectively, what they have accomplished, the outcome's meaning and their decision to move on (Holmes, 2010). According to Holmes (2010), the following tactics could be adopted during the adjourning stage. Teams should reflect on their achievements and the lessons learned both individually and as a team which can be incorporated in future projects. The adjourning stage can inspire emotions such as relief, celebration and uncertainty. Acknowledging these emotions can facilitate the development of effective team development skills (Holmes,2010).

▶ AWW Whiteboard may be used to draw out the main takeaways of the group project where members can show what they have learned and what they will incorporate into future endeavours.

awwapp.com
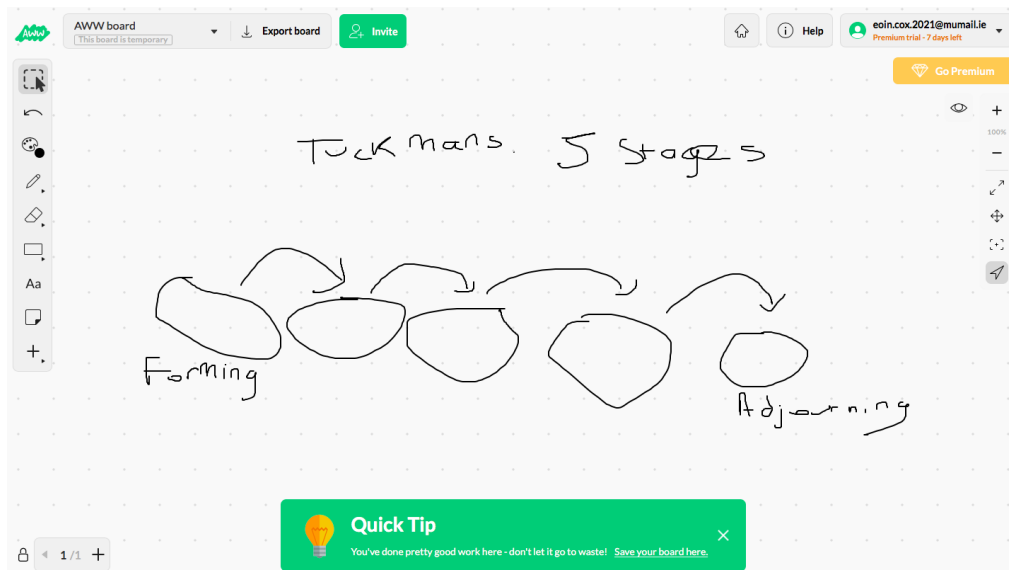
AWW Whiteboard

- AWW whiteboard allows teams to write, draw and highlight using an interactive whiteboard.
- Great visualising tool for virtual teams to use.
- Members have the option to add audio to the presentation.

Checklist for Virtual Teams

- Group charter and ice breaking games. ✔
- Clear synchronous and asynchronous communication channels established. ✔
- Set meeting time established. ✔
- Meetings are time limited. ✔
- An agenda is created with tasks delegated clearly. ✔
- Informal meeting time established I.e. meet for fifteen minutes to check in with team members. ✔

Conclusion

▶ To conclude, we believe virtual teams have the opportunity to outperform traditional teams when technology is optimised. Collectively we aimed to find a variety of tools that are available to all regardless of where they live. We hope that our guide has provided you with the necessary tools to optimise team performance at every stage of team development.

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