Experiential Exercise: YesTech – A Choose your own adventure Case Study!

1. **Introduction**

YES Tech is a critical thinking and problem-solving choose your own adventure case study that steps learners/teams through a series of three business decisions that change based on the past decisions (Choose your own adventure). The exercise focuses on developing students' ability to make complex decisions in a situation of uncertainty and justify their choice with evidence and a verbal defense. Each teams journey through the case study can dynamically change not only on their decision but on an industry professional or faculty members evaluation of their argument.

The topics of focus for this experiential activity are critical thinking, problem solving, communication and collaboration. All of these topics are widely acknowledged as 21st Century Competencies. This topic is relevant to the study of management for students who are entering a 4th Industrial Revolution work environment where change is constant and decisions impact both immediate outcomes and situations further down the road.

The instructional mechanics that drive learning in the exercise include:

Choose your own adventure – There is no 'right' outcome and each team is on their own path. This results in great in-class discussions about past decisions.

Team Based – Completing the case study in teams adds complexity to the exercise because students not only have to be convincing to the person evaluating their decision they need to first argue and defend their decision within the team. This mimics a real work situation and provides an opportunity for developing communication and negotiation skills.

Industry or Faculty Evaluation of Argument – Whether the students go down the pathway they choose or not is depended on their ability to convince others. This need to convince faulty or industry professionals (who decide which pathway) means the students have to conduct further research and gather data to defend their choice. Additionally, they have the opportunity to develop and practice their presentation skills.

2. Instructions for presenting the exercise

Learning Outcomes

- Identify, analyse and evaluate situations, ideas and information to formulate responses.
- Work in a team towards a common goal. Including the ability to prevent and manage conflict.
- Listen to, understand, convey and contextualise information through verbal, nonverbal, visual and written means.
- Exercise self-reflection in relation to individual learning and teamwork.

Timing

The whole exercise is designed to take approximately 25 hours to complete. This includes artifacts that can be used to assess the learning outcomes. Each of the three decisions take approximately 7 hours with the remaining hours allocated to facilitated class discussions.

The recommended delivery mode is to have students work on it over a four week period. One decision a week with the discussion in class linking the case to relevant theoretical content for the week.

Number of Participants/Group Size

Number of participants and group size is flexible. The whole exercise is enabled by technology so it is scalable to large cohorts. Recommended group/team size is 3 – 5.

Materials and Technology

The case study is technology enables as a dynamic webapp that can be accessed on any smart phone or computer. Facilitators get access to a coordinator interface where they can control the branching, review presentations and see where each team is at in the case study. Suggested in class discussion guides are also accessible on coordinator interface.

Appropriate Level

The case was designed for Masters of Management students but it has been used for undergraduate students too.

Preparation Needed

It is recommended that the facilitator/instructor go through at least one decision point on the student interface before kick-off so they understand how the students experience the case study elements.

3. Teaching Notes

Step 1: Explain the activity

Step 2: Break students into teams

Step 3: Use Excel to load student teams into the Yes! Tech App

Step 4: Instruct student teams to step through the case study and complete their first decision

Step 5: Once student teams have submitted their decision you can

- Review their defense video yourself and answer the rubric questions that will decide which pathway the students go down
- Assign (in the facilitator interface) an alumni, mentor, TA or another team to review each team (this can be automated), provide feedback and answer the rubric questions.

Step 6: Class Discussion 1 – It is recommended to take some time in class to discuss decision one. The main things that get unearthed in discussion one is:

- Not going down the pathway they chose. This is often a result of their defense not being compelling.
- Wanting access to the other pathways so they have ALL the information for the second decision. This often relates to their hesitation of making a decision in an ambiguous environment.

Step 7: Instruct students to continue through to the next decision point in the case

Step 8: Class Discussion 2 – The main things that get unearthed in discussion two are:

- Team Decision Making Issues. Some students may have disagreed with their team members but had to live the consequences of a team decision

- Changing a past decision. After having access to decision three (before completing it) students may want to go back and re-do.

Step 9: Instruct students to continue through the next decision point

Step 10: Class Discussion 3 – The main things that get unearthed in discussion three are:

- Who is the winner/which way is the 'right way'.

Note: Suggested questions for the in-class discussion are available if preferred.

4. Debriefing

The focus for debriefing the exercise is to go through the students experience of the exercise and help them see how theoretical concepts they learning in class could have been used to gain insight or as a framework as they stepped through the simulation. A few examples are:

- Decision making – Using the Cynefin Framework as a lens to see if the decision could have been simplified with more research
- Presenting – Communication skills/structuring arguments
- Teamwork – Team formation, High Performing Teams

What gets debriefed each time is different and is often dependent on what happens in the class discussions at the end of each decision.

5. **A summary of students' reactions to the exercise**

    a. Sample of Responses to what are the top two decision making skills

        i. "Gathering information on the basis of available data and statistics to weigh all the options for a final decision. Active listening and reasoning of all the opinions from other team members to come to a better conclusion or decision."

        ii. "Critical thinking of all the positives and negatives Time management"

    b. Responses to what would you do differently next time

        i. "Take up more responsibilities by leading the team rather than being just a team member."

        ii. "I would gather all the possibilities (positives and negatives) which could support for making decisions and simultaneously with increasing my decision making confident. I have identified my failures and get it as an opportunity to learn. I would gather more evidence and information which support for getting a better outcome. I will strengthen my motivation and commitment towards particular task in next time."

    c. Responses to what are the top two collaboration skills you learnt

        i. "Active listening to others opinions give the credits where it is necessary Verbal and non verbal communication"

        ii. "I think I improved on being assertive and active listening. I also learnt to improve emotional intelligence such as being empathetic, and having resilience"

6. Presentation

In a 30min presentation it would be feasible for participants to experience YesTech up until the first decision point and conduct a brief 'in-class' discussion to give participants an example of how these in-class discussions can be run.

I would layout the session in the following way.

Introduction/Team Participants/Give them access to Yes Tech – 5min

Complete First Decision as a team – 20min

> We would encourage participants to not think too much about what the right decision is but to experience the process.

Class Discussion – 10min

> We would facilitate the participants as if they were in the in-class discussion so they can see an example.

Participants would have access to the program map, experience outline and other resources to take with them and review later.

7. References/Pedagogical Underpinning of Yes Tech!

Design

YesTech! is designed using Constructive Alignment a curriculum design methodology that positions students in an environment where they are able to construct meaning and engage in higher order learning; where the role of the teacher is to set the intended learning outcomes ensuring assessment, teaching method and content are aligned to them (Biggs, 2003).

To reinforce higher order learning Kolb's Experiential Learning Cycle a method designed to increase learning retention by progressing students through a cyclical process of acting, reflecting, contextualising and applying is used in the design (Healey & Jenkins, 2000). One of the key functions of Kolb's Cycle in the design of YesTech is to ensure that students step through all four phases of the learning cycle multiple times. This is inherit in the structure of the exercise increasing the likelihood that each student will use the cycle to extract learning from the experience.

Finally, learning outcomes were developed based on Bloom's Taxonomy a method for creating learning outcomes that breaks outcomes into three areas; cognitive, affective and psychomotor. It also works on the assumption that higher order learning takes place only after students have mastered skills and acquired knowledge at the lower levels (Orlich et al, 2004).

Structure

Yes Tech! is structured using a flipped classroom approach where student class time is focused more on practical application by making theory based content accessible online using video or other alternative methods (Bishop & Verleger, 2013). Structuring assessments and learning around real – world situation student teams further enhance the flipped classroom approach with Contextual Teaching and Learning a pedagogy that enables students to draw links between content and real world application (Berns & Erickson, 2001). Industry professionals provide feedback on student work from an industry perspective alongside academic assessment further enhances the students learning and preparation for real world application of their knowledge and skills.

Delivery

Networked Learning is "learning in which information and communication technology… is used to promote connections: between one learner and other learners, between learners and tutors; between a learning community and its learning resources" (Goodyear, Banks, Hodgson & McConnell, 2004, p. 1). Yes Tech is delivered using a purpose built technology platform Practera that enables, cohort wide collaboration, project team collaboration and three-way collaboration between learner, academic and industry mentor that facilitates a Networked Learning environment for students.

Reference List

Biggs, J.B. (2003). Teaching for quality learning at university 2nd Ed. Buckingham: Open University Press/Society for Research into Higher Education.

Bishop, J. L., & Verleger, M. A. (2013). The flipped classroom: A survey of the research. Paper presented at the American Society for Engineering Education, Atlanta, GA.

Berns, R. G., & Erickson, P. M. (2001). Contextual teaching and learning: Preparing students for the new economy (The Highlight Zone: Research @ Work No. 5). Louisville, KY: University of Louisville, National Research Center for Career and Technical Education.

Goodyear, P, Banks, S, Hodgson, V & McConnell, D (2004) Research on Network Learning: An overview, in Goodyear, P, Banks, S, Hodgson, V and McDonnell, D, eds, Advances in Research on Networked Learning, Kluwer Academic Publishers, Dordrecht, pp 1–10.

Healey, M & Jenkins, A 2000, 'Kolb's Experiential Learning Theory and Its Application in Geography in Higher Education,' Journal of Geography, 99(5).

Orlich, D., Harder, R., Callahan, R., Trevisan, M. & Brown, A (2004). Teaching strategies: a guide to effective instruction (7th ed.). Houghton Mifflin.

8. Appendices

a. Appendix 1 – Exercise Overview

b. Appendix 2 – Exercise Outline with map of pathways and assessment items

Appendix 1: YesTech Case Study Summary

YES Tech Case Study

5 Key Points	• Case Study on complex decision making • Simulated company and problems • Optional teams & optional mentor feedback • Reflections on decision outcomes • Video submissions
Short Description	YES Tech is a critical thinking and problem-solving case study that supports participants through complex challenges, decision making simulations, analysis and the building of important 21st Century Skills. This program has four separate versions: automated individual, automated team, moderated individual and moderated team.
Learning Outcomes	1. Identify, analyse and evaluate situations, ideas and information to formulate responses. 2. Work in a team towards a common goal. Including the ability to prevent and manage conflict. 3. Listen to, understand, convey and contextualise information through verbal, nonverbal, visual and written means. 4. Exercise self-reflection in relation to individual learning and teamwork.
Features List	• Chat • Fast feedback questions • Auto-assign reviewers (if applicable) • Auto-publish reviews (if applicable) • Gamified: locked/hidden next episodes of the case study • In-app and SMS notifications • Video submissions

Decision Making Case

Design Document

Created: April 2018

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COURSE INFORMATION

Objective

The YES Tech Case is a critical thinking and problem-solving case study that supports students through the process of experiential learning and enables the building of important 21st Century Skills. This learning can enable students to close the skill gap widely seen in graduates entering into employment in our rapidly changing and technology-centred world. The World Economic Forum defines a list of sixteen 21st Century skills in *New Vision for Education* (2015) as "most critical" to address in students today in order to support future employability. This program has been developed in order to address three of these important skills and includes reflective practice to build their learning and understanding.

This program has been designed as an interactive, experiential learning and team building program that integrates the use of Practera's platform, complete with written and video submissions that can moderated by administrators or coordinators. This case study has been built to allow facilitation by one or many different stakeholders, be them industry, professional development or education providers.

Duration

This case study has a suggested duration of 4 weeks – 1 week per decision and 1 week for final wrap up and reflection. This timing can be condensed based on configuration which is detailed further on page 10.

LEARNING OUTCOMES

Project Outline

This program has been designed to build a student's ability to approach complex challenges, and address in particular, three of the sixteen 21st century skills as outlined by World Economic Forum in the New Vision for Education Report (2015). Simulations such as this case study allow students to engage in learning using a game-like environment, which provides the ability for participants to develop and work on multiple skills at the same time. Participants also must engage in reflection throughout this case study, which is an essential building block of experiential learning (Kolb, 1984). By using this pedagogical approach in the learning design and incorporating the use of the technology platform Practera, this case study provides an integrated learning experience for participants that not only addresses essential 21st Century skills but also facilitates reflective practice.

In this case study, students will be playing the role of consults (possibly on a team) that have been contracted to support YES Tech's future growth. On the successful completion of this course students will be able to:

1. identify, analyse and evaluate situations, ideas and information to formulate responses. (WEF)
2. work in a team towards a common goal. Including the ability to prevent and manage conflict. (WEF)

3. listen to, understand, convey and contextualise information through verbal, nonverbal, visual and written means. (WEF)
4. exercise self-reflection in relation to individual learning and teamwork. (Kolb)

References

Kolb, D. (1984). Experimental Learning. Englewood Cliffs: Prentice-Hall.

World Economic Forum. (2015). *New Vision for Education: Unlocking the Potential of Technology* [PDF]. Geneva: World Economic Forum.

LEARNING OUTCOMES DETAILED

Critical Thinking & Problem Solving

Students are required to make decisions for a fictitious company based on the limited information they are provided. The ambiguity of the information provided is key to ensuring that students are able to use reasoning, systems thinking and make judgements and decisions to solve complex problems. Throughout this program, students will need to work together to make decisions for a company's future that may or may not work.

Collaboration & Teamwork

Students are required to work effectively and respectfully within a team they are allocated to. In order to do this, they will need exercise flexibility, make compromises and share the responsibility of decisions and come together as a team to create videos that outline their team decision clearly. All team members must be involved in the decision-making process and be featured in the video submissions.

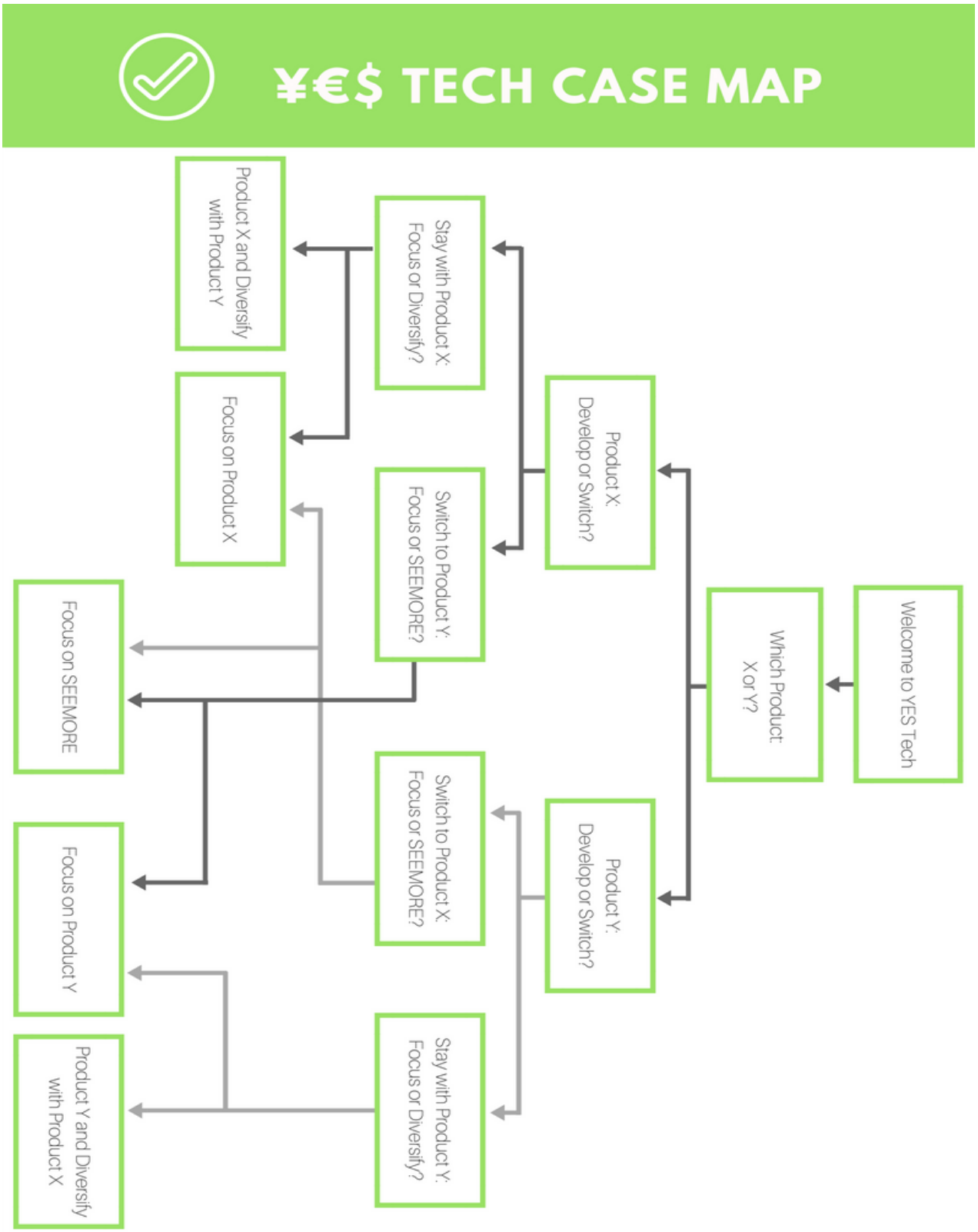
Communication

Students are required to submit videos and written work that meet standards of clear communication. They will be expected to articulate their thoughts and ideas effectively and have awareness of their body language and any nonverbal communication that may be communicated through video. Students are submitting their videos to fictitious characters within the YES Tech business, so students will need to consider their videos to be presented in the style of a business presentation.

Reflection

Reflective practice is the backbone of experiential learning. In the YES Tech Case, students are required to reflect individually about their present decision-making practice at the beginning of the course and reflect again on their learning and growth at the end of the case. By reflecting, students will be able to thoughtfully consider and process their experience with the YES Tech Case. In doing so, they will identify their strengths both individually and as a team in order to improve their decision making process in the future.

CASE MAP


¥€$ TECH CASE MAP
Welcome to YES Tech
Which Product: X or Y?
Product X: Develop or Switch?
Product Y: Develop or Switch?
Stay with Product X: Focus or Diversify?
Switch to Product Y: Focus or SEEMORE?
Switch to Product X: Focus or SEEMORE?
Stay with Product Y: Focus or Diversify?
Product X and Diversify with Product Y
Focus on Product X
Focus on SEEMORE
Focus on Product Y
Product Y and Diversify with Product X

KEY DECISIONS & REFLECTION ELEMENTS

ASSESSMENT NAME	INDIVIDUAL/TEAM	TYPE	LEARNING OUTCOMES	LENGTH
Decision Making	Individual	Written	1, 4	200-300 words
Which Product?	Team	Video	1, 2, 3	3-4 minutes
Develop or Switch?	Team	Video	1, 2, 3	3-4 minutes
Go or No Go? OR Focus or Diversify?	Team	Video	1, 2, 3	3-4 minutes
Reflect on Result	Individual	Written	1, 4	500 words

KEY DECISIONS & REFLECTION DETAILS

1. DECISION MAKING

Task Description

Participants will write a reflection of 200-300 words outlining their current decision making process and reflecting on where they may have room for growth in their decision making.

Feedback/Evaluation:

- Clear articulation of current process of decision making.
- Reflection on potential areas for growth.
- Clear communication in written response. Free of grammatical errors.

Feedback/Evaluation can be automated, completed by a program manager or include an industry/mentor feedback loop. See delivery options on page 10 for more details.

2. WHICH PRODUCT?

3. DEVELOP OR SWITCH?

4. GO OR NO GO? *OR* FOCUS OR DIVERSIFY?

Task Description

Teams will record a 3-4 minute video to clearly outline their team's choice based on the information they have been provided in the program or that they have researched in order to make this decision. Teams will need to present a clearly defined case for their choice and refer to information and research that they have gathered.

Feedback/Evaluation

- Clear identification of choice/direction that YES Tech should take.
- Clear articulation of reasoning why with reference to evidence in provided information and team conducted research.

- Evidence of market research and analysis to validate choice.
- Clear communication over video considering body language and contributions from all team members.

Feedback/Evaluation can be automated, completed by a program manager or include an industry/mentor feedback loop. See delivery options on page 10 for more details.

5. REFLECT ON RESULT

Task Description

Participants will write a reflection of 500 words demonstrating their learning and growth over the course of the program. This reflection will detail the various difficulties and moments of struggle that the student experiences and the personal growth they underwent working through difficult and complex decisions.

Feedback/Evaluation

- Clear articulation of growth with reference to process of decision making.
- Detailed reflection on personal growth with reference to decisions from this case study.
- Clear communication in written response. Free of grammatical errors.

Feedback/Evaluation can be automated, completed by a program manager or include an industry/mentor feedback loop. See delivery options on page 10 for more details.

POTENTIAL CONFIGURATIONS

1. TEAM & MODERATED (AS DETAILED ABOVE)

Description

Participants will be placed onto teams to go through this decision making case. Their advancement through the case will be determined by the moderation of assessments by reviewers.

Possible Additions:

- Teams are allocated the opposite of their choice if their video is not convincing enough.
- Team360 Reports to individual team member's collaboration skills.

2. INDIVIDUAL & MODERATED

Description

Participants will go through this decision making case on their own. Their advancement through the case will be determined by the moderation of assessments by reviewers.

Possible Additions:

- Participants are allocated the opposite of their choice if their video is not convincing enough based on a moderator review.

3. AUTOMATED – INDIVIDUAL OR TEAM

Description

Participants will go through this decision making case either on teams or individually. Their progress through the case is automated and they will be able to continue without the moderation of their assessments by reviewers.

Possible Additions:

- Automated team: built-in, individual reflections after each video submission that must be completed by a certain percentage of the team in order to move forward in the case.