

MonsoonSIM Users Conference



MonsoonSIM Creativity Challenge

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www.utm.my

innovative • entrepreneurial • global



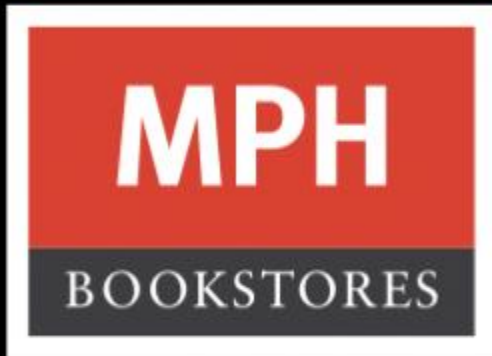
univteknologimalaysia



utm_my



utmoofficial



**Deloitte
Consulting**





**UTM ranked 101-200 in the overall
2019 THE University Impact Rankings**

The Top THREE Sustainable Development Groups (SDGs)

SDG 9 : #71

Industry Innovation and Infrastructure

www.thewur.com



**2019/2020 Quacquarelli Symonds (QS) World University
Rankings**

Asia Top 10 Young Universities
Ranked 5 Stars Overall Rating for QS Star Rating

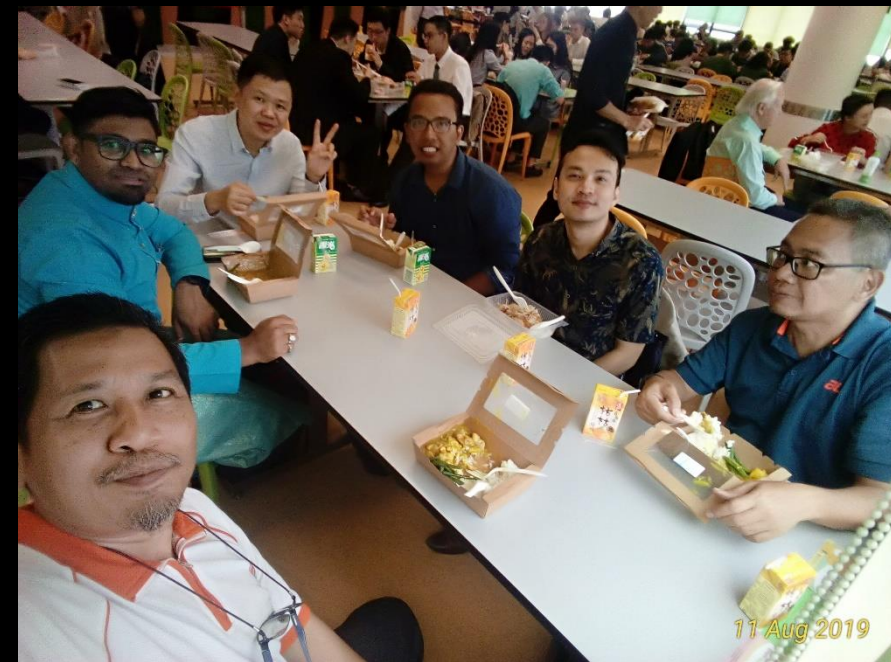
2019 QS World University Rankings

Top 10 in South East Asia



UTM
UNIVERSITI TEKNOLOGI MALAYSIA





ACHIEVEMENT

- Won International University-Industry Award in NALI Competition 2018.
- Two UTM teams became the Malaysian Champions and 1st runner-up (2017) respectively. Top five of Avengers in Bangkok.
- Three consecutive years (2016, 2017, 2018, 2019) represented Malaysia at the regional competition.
- **Students got a job!**



Isenberg (1999) described internet as ‘**mother of all disruption**’; displacing established competitors (Christensen, 1995)



Internet (Internet of Things, IoT) as **game changer** (Purdy & Davarzani, 2015).



Disruptive innovation →
Collaborative innovation →
Game changer ('macro-
phenomena' that is perceived to
change the 'game' of societal
interaction) (Avelino et al., 2014)

E-learning (part of IoT) has influenced world of education, training and development.



‘E-learning’ has been coined
by Jay Cross (Cross, 2004;
Cross and Lance, 2002).

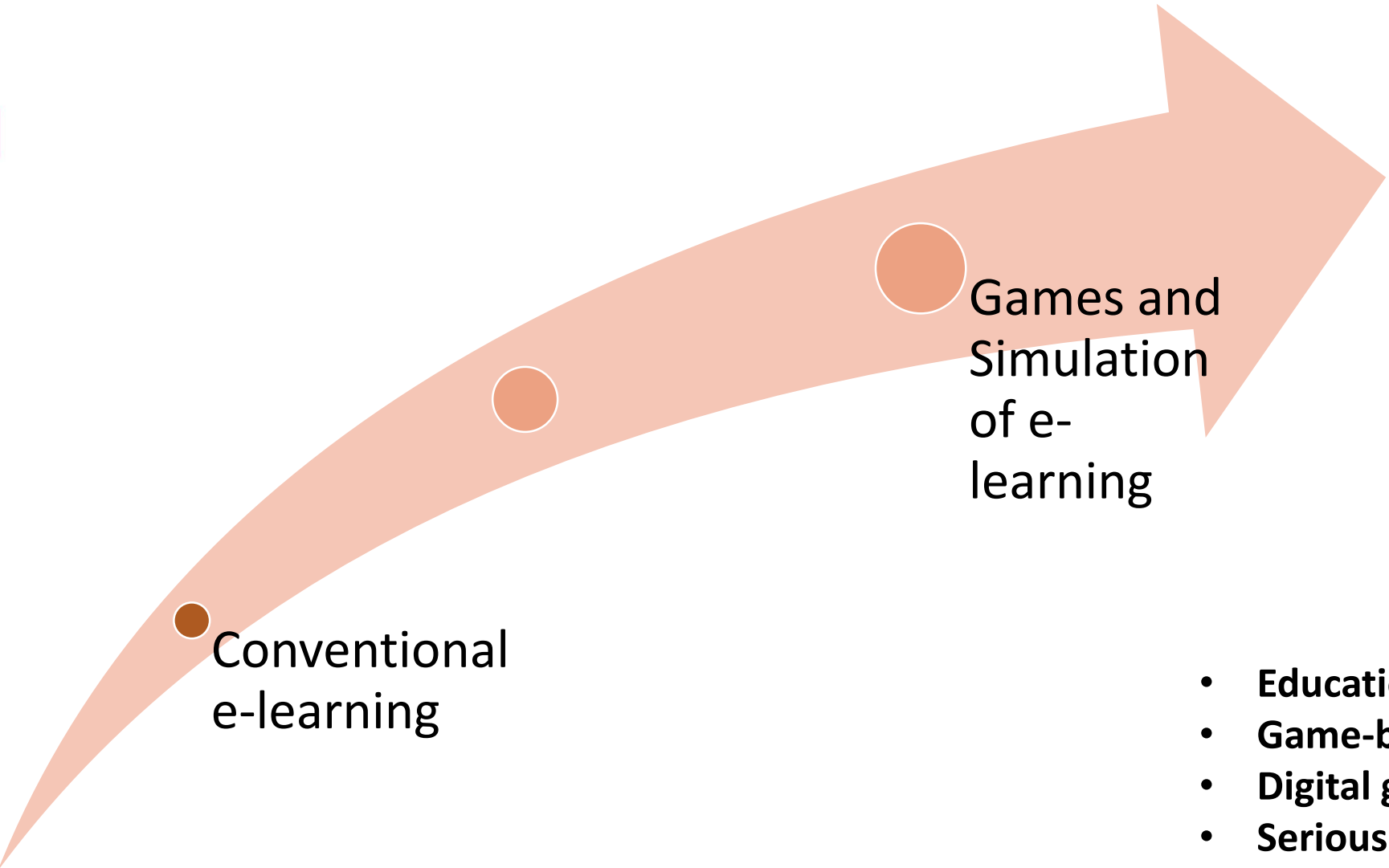


1984: Computer-based learning and computer-based training. 1990s: Internet was globally introduced.



Various 'kind' of e-learning existed; digital/online learning, m-learning, blended learning, deeper learning, micro learning etc.

Game-Based Learning (GBL) refers to the use of computer games that possess educational value or different kinds of software applications that use games; for learning and education purposes (Tang, Hanneghan & El-Rhalibi, 2009).



Conventional
e-learning

Games and
Simulation
of e-
learning

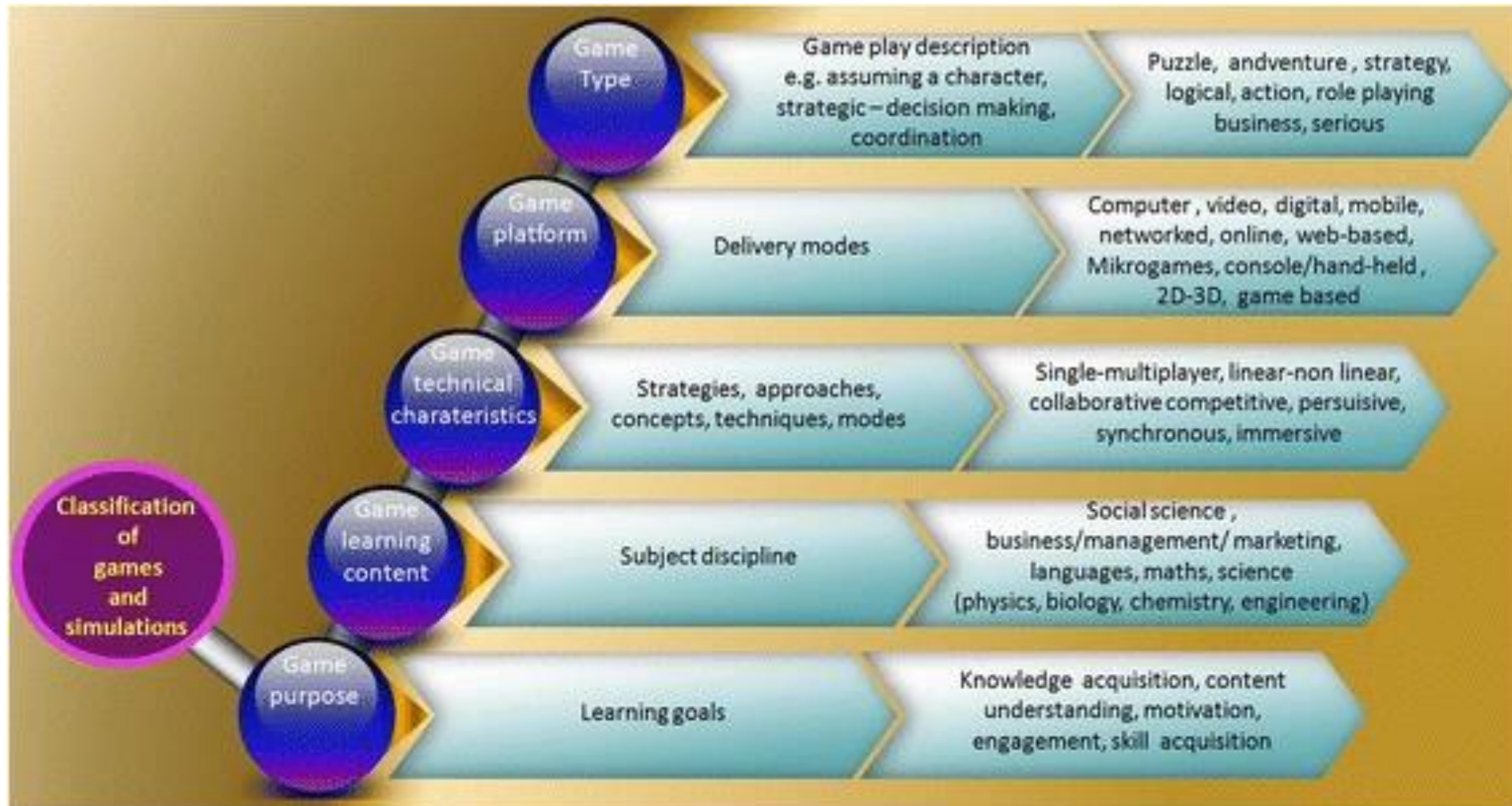
- **Educational games**
- **Game-based learning (GBL)**
- **Digital game-based learning (DGBL)**
- **Serious games**
- **Indie games**

‘Games and simulations’
could act as an umbrella for
further typologies ([Dimitrios](#)
[Vlachopoulos](#) & [Agoritsa](#)
[Makri](#), 2017)

Genres of games in higher education
(Gros, 2007): action games,
adventure games, fighting games,
role-playing games, simulations,
sports games and strategy games.

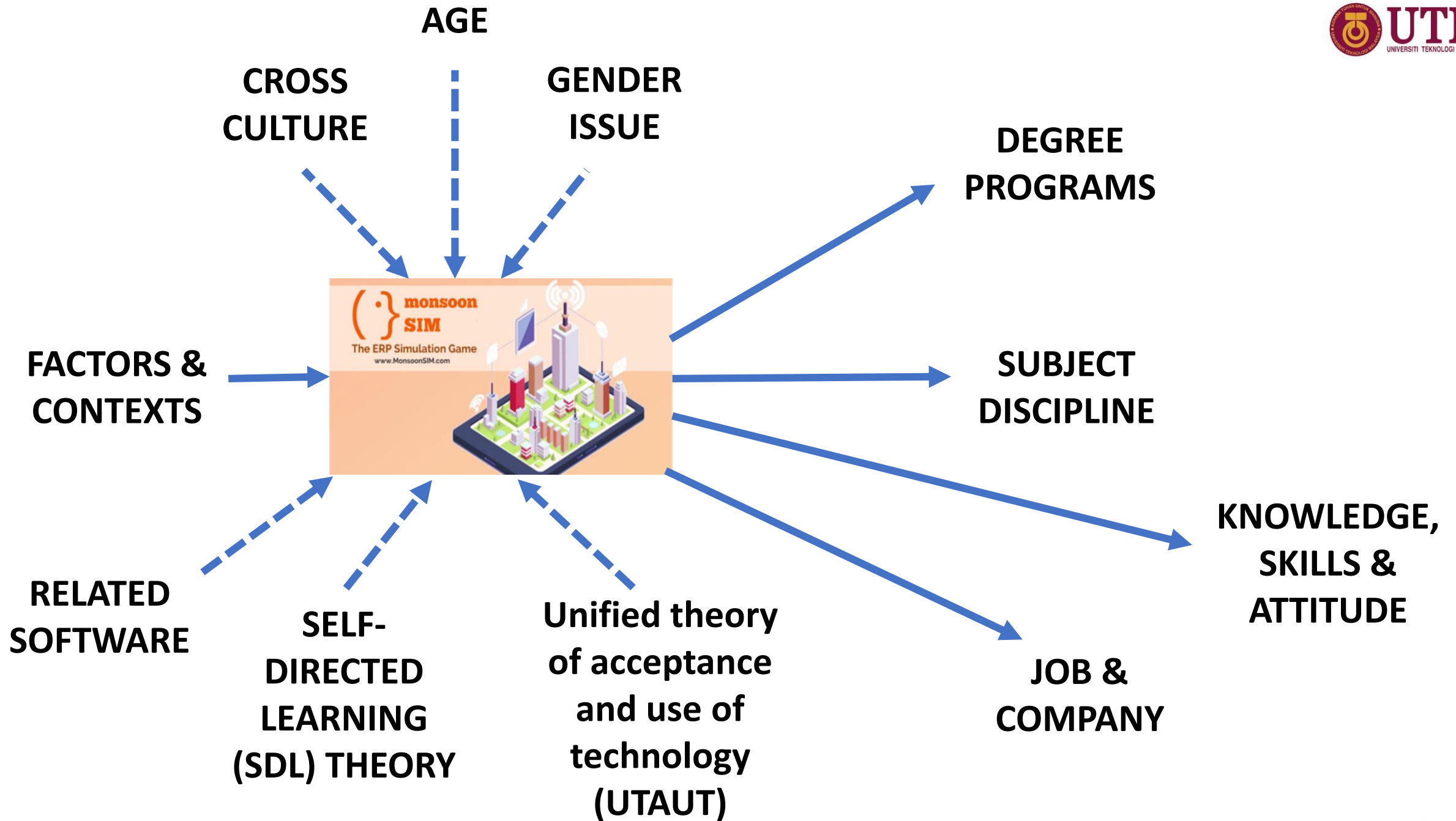


MonsoonSIM



Games were found highly potential to teach student number of **skills and competencies** (communication skills and adaptability) or referred to as 'graduate attributes' in higher education (Barr, 2017).





UTM EXPERIENCE

Subject discipline (course):

1. Critical and Creative Thinking (30%)
2. Entrepreneurship (30%)
3. Project Management (30%)

(Shafudin, M.Y., Goh C.F, Raihanatul Z. (2018). Factors Influencing Use of MonsoonSIM Business Simulation by UTM Undergraduate Students. *International Journal of Learning and Development*. Vol. (2), pp. 61-79.)

Critical and Creative Thinking:

This subject is to review the concepts, theories and practices of the critical and creative thinking.

Techniques on critical and creative thinking could help students to be more realistic, innovative and far-sighted in their actions. This is a kind of constructive approach to develop student's thinking to be more matured and intellect as a graduate-to-be.

Students:

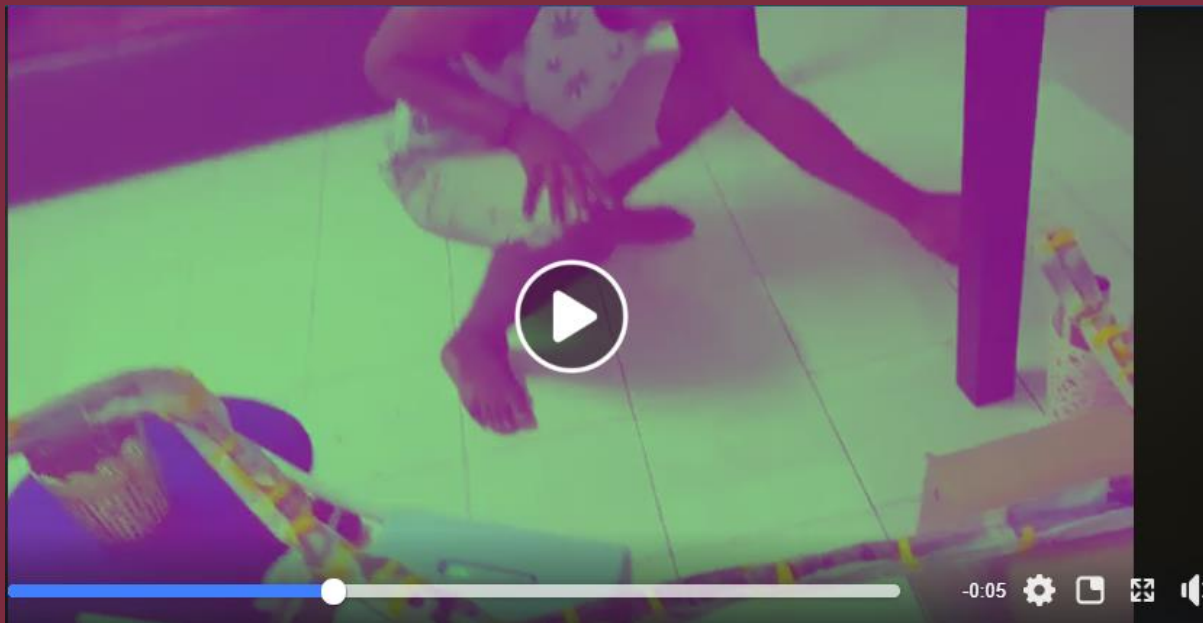
- Malaysia (46)
- Cameroon (7)
- Bangladesh (2)
- Indonesia (1)

- Chemical Engineering
- Naval Architecture & Offshore Engineering
- Mechanical Engineering
- Computer Science
- Accounting

Continuous Assessment		PLO	Percentage	Total SLT
1	Test	KW	20%	1h
2	Group assignment	TH	30%	As in CLO 2 (2h)
3	Log book/minute Meeting/homework	AP	10%	As in CLO 3 (14h)
4	Project simulation & report	SC	40%	As in CLO 4 (6h)
Final Assessment			Percentage	Total SLT

Assessment 4: Conventional (10%) and simulation games (MonsoonSIM ERM) (30%)

Conventional games (10%)



MonsoonSIM Creativity Challenge (30%)

No	Assessment	Marks (%)
1	Games and simulations	10
2	Individual reflection	10
3	Group report (creativity proposal)	10

30%

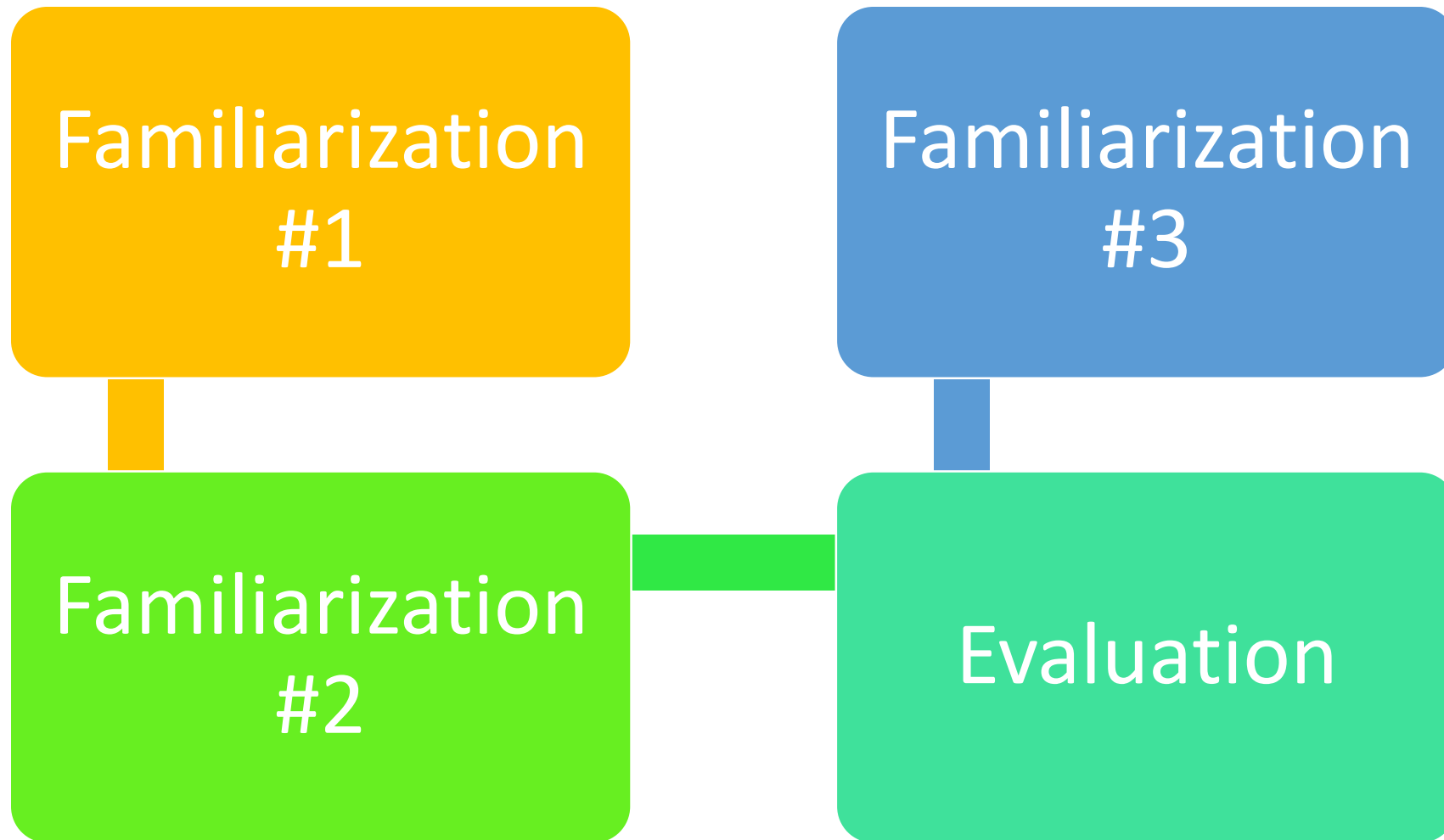
Scoring matrix setting (for competition):

- a) Net profit: 50%
- b) Cash on hand: 10%
- c) Sales retail: 20%
- d) Sales service: 20%
- e) Utilization retail space: 10%

70%

KPI Target setting (competency):

- a) Cash on Hand: 5,000,000
- b) Net profit: 5,000,000
- c) Sales retail: 6,000,000
- d) Sales service: 600,000
- e) Utilization retail space: 75%



Individual reflection (10%)

- a) After completing all of the games in league, each student have to ma a personal reflection based on the ERM simulation games.
- b) Your reflection should be based on the following contexts:
- i) General reflection on MonsoonSIM ERM games.
 - ii) Reflection on critical (analysing and evaluating) and strategic thinking.

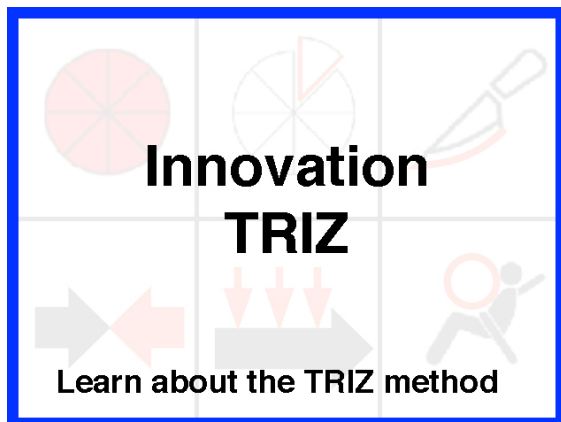
Mode of reflection	Marks (%)
Give clear and details evidence, fact and figure to support the reflection	9-10
Give evidence, fact and figure to support the reflection, but not clear and details	7-8
Do not give evidence, fact and figure to support the reflection	5-6

Group report (10%)

- a) The report basically is a kind of proposal on INNOVATIVE IDEA TO IMPROVE MONSOONSIM or INNOVATIVE IDEA TO DEVELOP NEW SIMULATION GAMES.
- b) By using any creativity tools, you have to show how the innovative idea had been developed.
- c) Three pages; A4; 1.5 spacing; Arial 12.

Mode of report	Marks (%)
Give clear and details evidence on the idea development by using creativity tools	9-10
Give evidence, but not clear and details	5-8
Do not give evidence, just suggest the idea	1-4

Creativity Tools



deBono Students' Academy

	PMI: Plus • Minus Interesting The Treatment of Ideas		Planning Thinking Ahead to Get Things Done
	CAF: Consider All Factors The Prime Information Input Tool		FIP: First Important Priorities What Must be Done First? What's Most Important?
	Rules Make Life Easier and Better		APC: Alternatives Possibilities • Choices The Tool for Creativity
	C&S: Consequence & Sequel A Prediction and Evaluation Tool		Decisions Think Clearly and Thoroughly
	AGO: Aims • Goals • Objectives What Is the Purpose?		OPV: Other People's Views An Exploration Tool to Broaden Perception

Quick Summary:

CoRT 1
Breadth
Thinking
Tools

deBono for Schools
© 2009, The McGraw-Hill Group Inc.

Think Your Way to Success

4

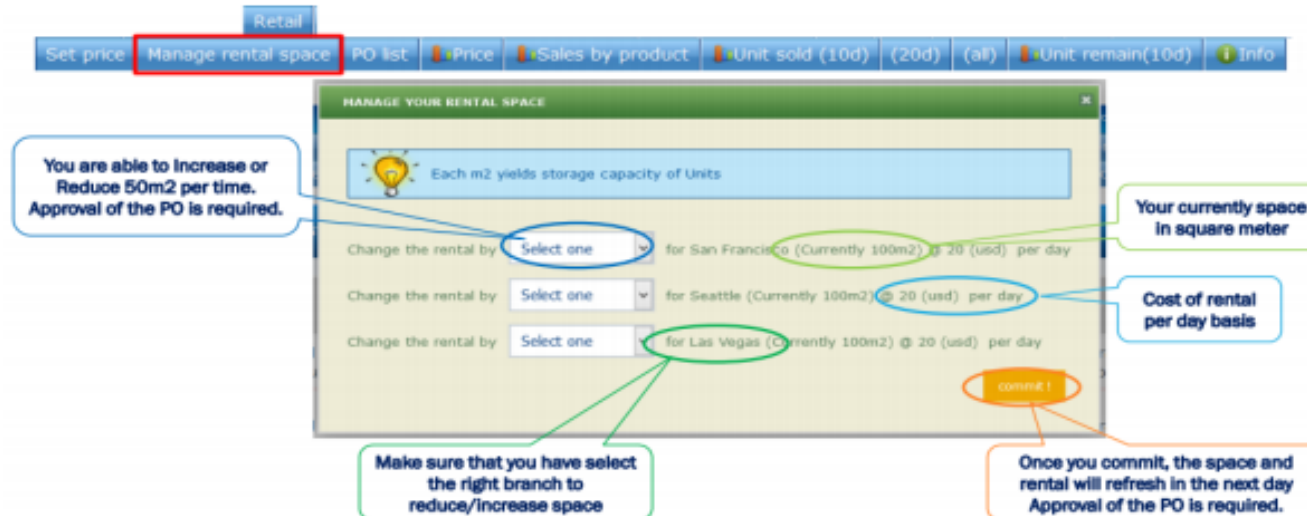


Individual reflection

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session. Besides, we had done a mistake during the evaluation session. We were too focus on achievement of target of utilization of space while neglect the main factor, net profit. We order too much of stock at 55 days while we do not have enough time to sell our products and thus this had caused our net profit to decrease. This mistake had affected our result. Anyway, with the cooperation of group members, we had succeed to achieve the KPI targets and had also improved the achievement of utilization retail space from 62% (practice 3) to 73% (evaluation session). All in all, we were satisfied with the results with the total score of 497.

student in-charge needs to always be aware of the utilizing area in each branch. The student in-charge in our team have tried to sign the contract, for example to set the rental space at a certain value for example, 7 days or more longer 30 days in order to reduce the rental fees. However, this will bring the risk that we cannot change the rental size immediately when there are any drastic changes in the remaining stock amounts. Therefore, our team member does not set the contract period too long, but only 7 days in order to obtain 20% discount but not 30 days to secure both aspects. In a company, the marketing department also play an important role to improve the company performance and sales. By choosing the right media to promote the company's products, this can help to increase the sale and the net profit of company.



The screenshot shows a web application interface for managing rental space. The top navigation bar includes links: Retail, Set price, Manage rental space (highlighted with a red box), PO list, Price, Sales by product, Unit sold (10d), (20d), (all), Unit remain(10d), and Info. The main content area is titled 'MANAGE YOUR RENTAL SPACE' and contains a lightbulb icon and the text 'Each m2 yields storage capacity of Units'. Below this, there are three rows for different locations: San Francisco, Seattle, and Las Vegas. Each row has a 'Change the rental by' dropdown menu (labeled 'Select one') and a display showing 'Currently 100m2 @ 20 (usd) per day'. Annotations with callouts provide additional information:

- You are able to Increase or Reduce 50m2 per time. Approval of the PO is required.** (points to the dropdown menu)
- Your currently space in square meter** (points to the 'Currently 100m2' text)
- Cost of rental per day basis** (points to the '@ 20 (usd) per day' text)
- Make sure that you have select the right branch to reduce/increase space** (points to the location names)
- Once you commit, the space and rental will refresh in the next day. Approval of the PO is required.** (points to the 'commit' button)

Client: Main Inc Service Marketing Support : 6 Day Service Technical Support : 6 Day Max bid price allowed 144,000 SGD Minimum bidders : 1 Team Evaluated based on : Price Late penalty : 500 SGD / Day Terms of Payment : Cash on delivery Trigger by : Tew Lee Jia	Bon Chen [ACTIVE] Dept: Service Marketing Support	53	54	55
	MenGuo Izuma [ACTIVE] Dept: Service Marketing Support	53	54	55
	MenGuo Midas [ACTIVE] Dept: Service Technical Support	53		
	Sung Widjaya [ACTIVE] Dept: Service Technical Support	53		55
	Uma Supraman [ACTIVE] Dept: Service Technical Support	53	54	55
	Max bid price allowed : 144,000 SGD YES Quote : 100,000 SGD 2703 Quote : 143,900 SGD			

Figure 4: Service Development

For instance, in this case, although we have set the numbers of staff required for marketing and technical support correctly, but since we (team 2703) give a higher quote compared to other team (YES), finally we fail to get the bid. Therefore, during the service development, it is very important for us to set the bid price reasonably, the required team number correctly and to deliver the service on time in order to avoid any penalty. Although the team that gives lower quote can win the bid, but we should not set the quote to too low value, as this will result in the loss of profit of company.

Team : 2703						Total Score : 427
KPI: Cash On Hand (SGD)	Target:	5,000,000	Current:	10,426,872	Score:	100
KPI: Net Profit (SGD)	Target:	500,000	Current:	6,928,872	Score:	100
KPI: Sales Services (SGD)	Target:	600,000	Current:	360,345	Score:	60
KPI: Sales Retail (SGD)	Target:	6,000,000	Current:	21,624,697	Score:	100
KPI: Utilization - Retail space (%)	Target:	75	Current:	50	Score:	67
Team : 2703						Total Score : 456
KPI: Cash On Hand (SGD)	Target:	5,000,000	Current:	12,170,705	Score:	100
KPI: Net Profit (SGD)	Target:	5,000,000	Current:	8,702,065	Score:	100
KPI: Sales Retail (SGD)	Target:	6,000,000	Current:	25,435,009	Score:	100
KPI: Sales Services (SGD)	Target:	600,000	Current:	1,067,046	Score:	100
KPI: Utilization - Retail space (%)	Target:	75	Current:	42	Score:	56
Team : 2703						Total Score : 461
KPI: Cash On Hand (SGD)	Target:	5,000,000	Current:	12,191,219	Score:	100
KPI: Net Profit (SGD)	Target:	5,000,000	Current:	8,720,746	Score:	100
KPI: Sales Services (SGD)	Target:	600,000	Current:	1,345,999	Score:	100
KPI: Sales Retail (SGD)	Target:	6,000,000	Current:	24,698,690	Score:	100
KPI: Utilization - Retail space (%)	Target:	75	Current:	46	Score:	61
Team : 2703						Total Score : 461
KPI: Net Profit (SGD)	Target:	5,000,000	Current:	12,559,753	Score:	100
KPI: Cash On Hand (SGD)	Target:	5,000,000	Current:	15,138,853	Score:	100
KPI: Sales Services (SGD)	Target:	600,000	Current:	2,174,700	Score:	100
KPI: Sales Retail (SGD)	Target:	6,000,000	Current:	27,105,353	Score:	100
KPI: Utilization - Retail space (%)	Target:	75	Current:	46	Score:	61

Figure 5: KPI achieved for practise 1, 2, 3 and eva session respectively.

As a conclusion, this is a very special and quite interesting experiences for me to have a chance to participant in this game. I have learned a lot through this game about the operation of a business and all the factors to be considered. I am glad that our sales retail is the best in cluster 1 and our sales service improve gradually. I hope that next time I can find out the best strategy to achieve the KPI for utilization space.

how many should we buy the products. The strategy which we use to increase our sales retails is to increase the price of the products when the demand of customers increases. The figure 1 and 2 show that the trend we increase the price as the customers' demand increases.



Figure 1: Unit of products sold



90711	Client: Broadway Inc Service Franchise Support : 2 Day Service Technical Support : 12 Day Max bid price allowed 252,000 SGD Minimum bidders : 1 Team Evaluated based on : Price Late penalty : 400 SGD / Day Terms of Payment : Cash on delivery Trigger by : Wong Tze Hui	Miu Chen [ACTIVE] Dept: Service Franchise Support	45			252,000 SGD	Bid Day	42	Cancelled
		Neo Bishio [ACTIVE] Dept: Service Franchise Support	45				Bid Result Day	44	
		Eliz Limbda [ACTIVE] Dept: Service Technical Support	45	46	47		Need Day	50	
		Jao Chen [ACTIVE] Dept: Service Technical Support	45	46	47				
		Wei Ranita [ACTIVE] Dept: Service Technical Support	45	46	47				
		Winni Limbda [ACTIVE] Dept: Service Technical Support	45	46	47				
		Max bid price allowed : 252,000 SGD MINI HELP Quote : 240,000 SGD YES Quote : 249,999 SGD 12345 Quote : 251,000 SGD 2703 Quote : 252,000 SGD							

Figure 5: Sales service is cancelled

Fortunately, we are able to get the highest in overall for the last completion, with fully cooperation between each group members. I have learnt a lot not only on business running but also the teamwork between members is important, even we have only four members and need to compete with other five members group, we still plan well and cooperate to achieve our target.

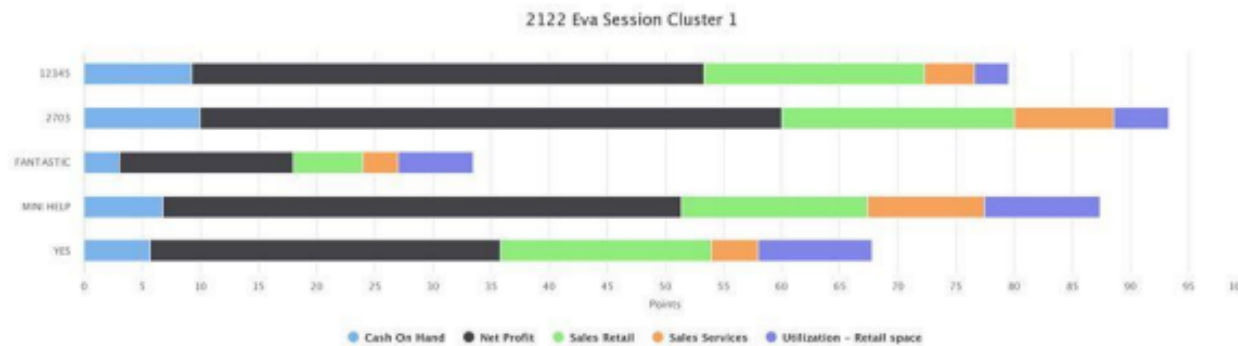


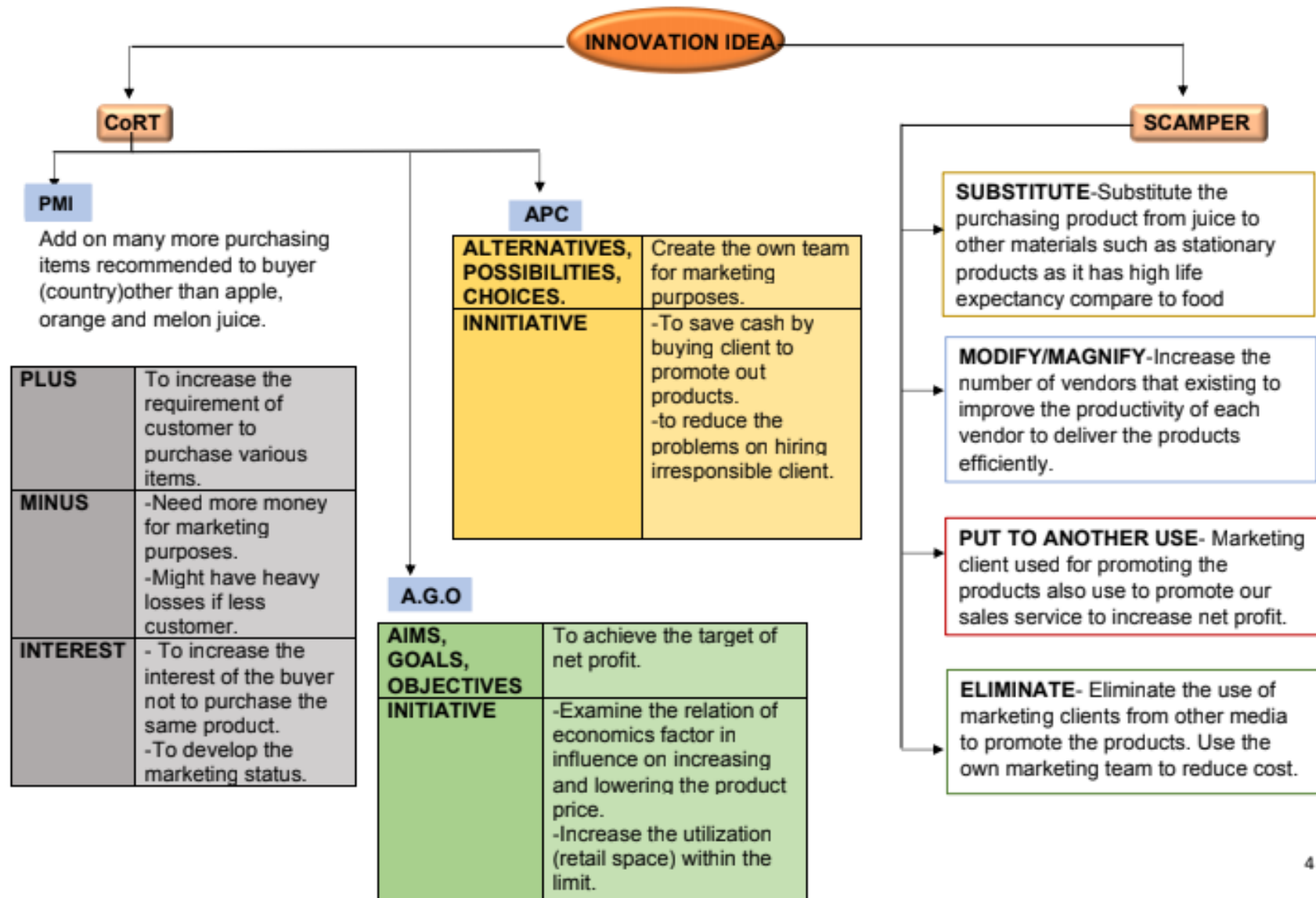
Figure 6: Overall results for competition

Group report



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Opportunities: Most of the users in business stimulation studies, MonsoonSIM are business users and students. According to Faria (1998), a lot of large companies are using business simulation games as training tools. Companies ensure their employees equipped with analytical thinking and strategic in practices. Thus, in today's competitive social, people enhanced numerous skills are more benefits than others. On the other hand, other users that have been commonly and widely used by students. Students experience the real-life process in every department in a business. This would real help for those who want to start a business without any ideas. It is enlightening learners the complexity of running a business. Starting a business is not an easy matter. Through this interactive learning process, learners were imparted soft skills such as teamwork, team management, leadership roles with respective decisions. Students especially graduating students, they are better prepared for entry workplace. As proven, 42 education institutions worldwide with 26461 registered learners adopted MonsoonSIM. Therefore, business simulation games are considered as one of the contemporary methods of education. This is because of they convey knowledge in a practical way.



3.0 CONCLUSION

As a conclusion, there are a lot of innovation ideas that can be designed to innovate the Monsoonsim Game. The ideas were referred from the creative thinking tools such as CoRT1 and SCAMPER. Monsoonsim is a great learning and simulation business games for the students to engage with business experience and virtual working environment. This game enhances our thinking skills to think more creative and critically. The innovation ideas that have been developed are also based on what we experienced and went through while playing the game. The creative thinking tools are helpful for us as it can also be implemented in our daily life in making decisions and choosing the right choice.

teams to finish their games. Therefore, we suggest that the game system can be modified into 4 versus 4, 6 versus 6, 8 versus 8 team mode and so on to provide more options for participants. So, participants can choose the team mode based on their desired. For the team members, we suggest to modify the team system into random pairing with filter and create team using code. If players want to play with random pairing, they can use filter to choose which kind of players they want to play together. For players who want to play with their friends or colleagues can create team using code. Besides, the game level can also be modified into six ranking from easy to hard level such as elite (easiest), master, grandmaster, epic, legend, mythic level (hardest). Different levels provide different features. All players have to start from elite level and accumulate points based on their performance in game. When they reached certain points, they can explore next level. Ranking level:

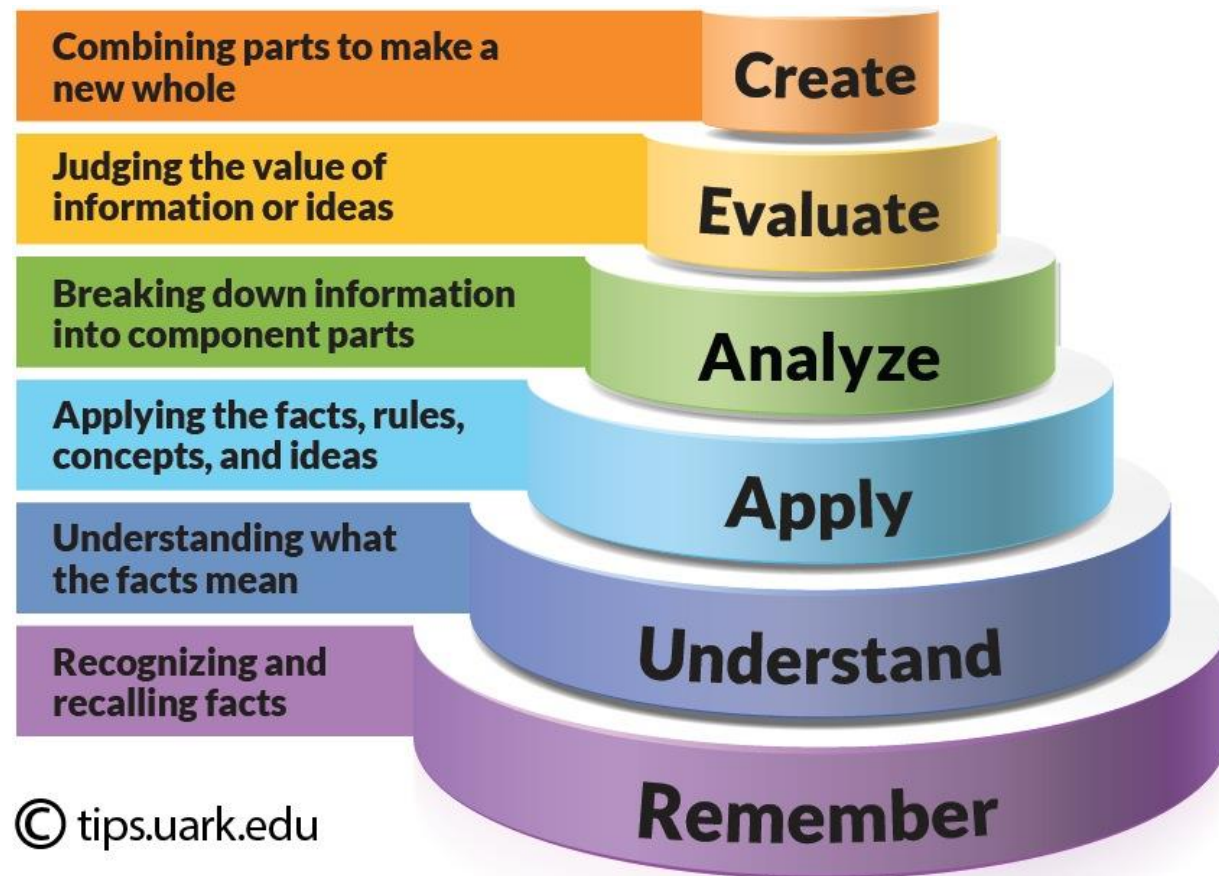


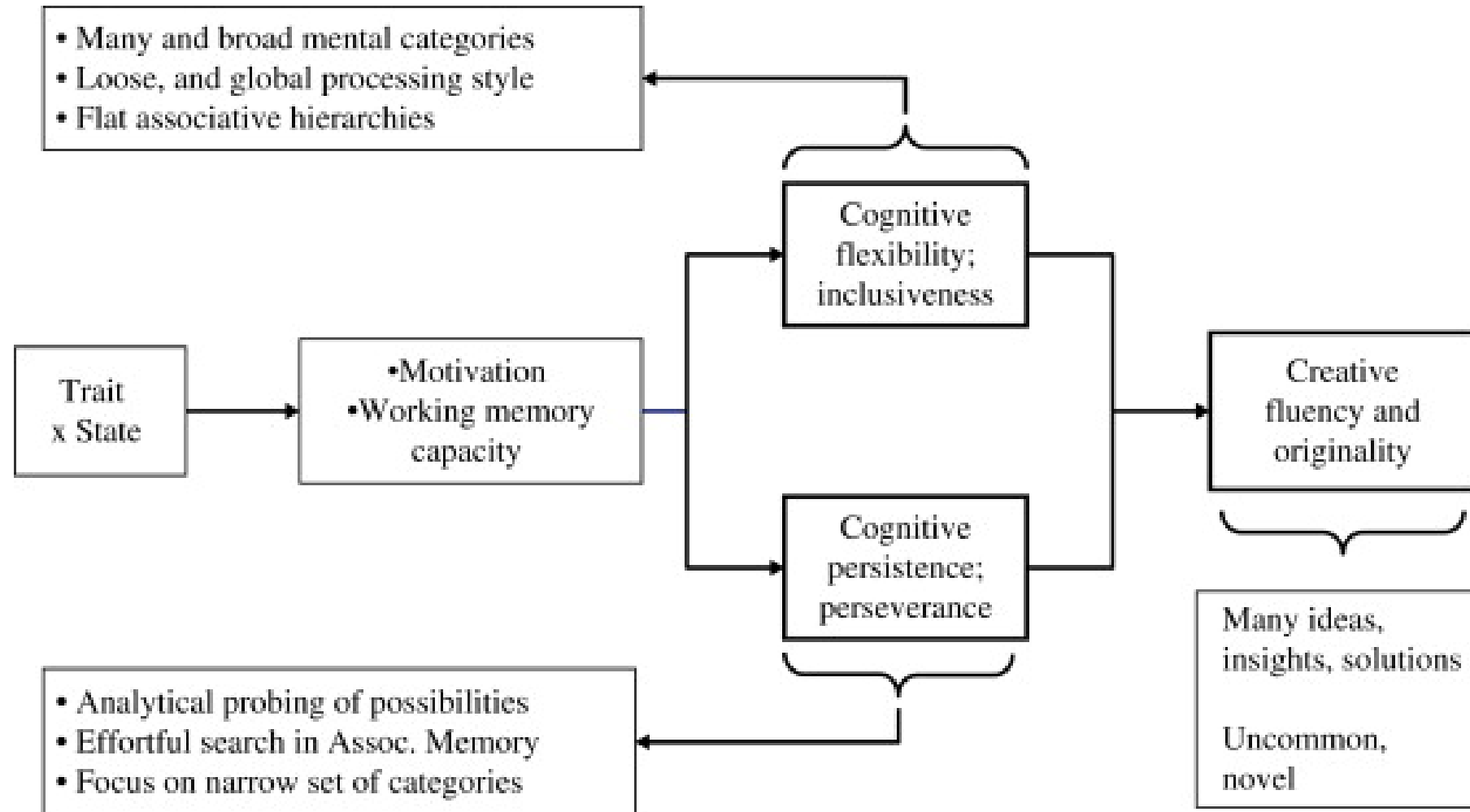
E-Eliminate:

To simplify the game, our group plan to make the game into a mobile game that can be accessed in everywhere, every time and connect with everyone globally. It is making into an online multiplayer game; players will join a team of up to four or five players and compete with other teams to become the champion of the battle. By making it accessible on mobile, players no need to bring along computer to everywhere and more easily to control on mobile apps. This is the reason why most of the prestigious pc online game such as League of Legend, PUBG and Dota had transform into mobile games. By doing this can attract more players from different age groups and society.



Critical thinking → creative thinking





Questions Responses 40

PRE-TEST ON CREATIVITY

CREATIVITY ASSESSMENT

Gender : *

☐ MALE

☐ FEMALE

Matric number : *

Short-answer text

Date : *

Day, month, year



I am unconventional in many ways *

1

2

3

4

5

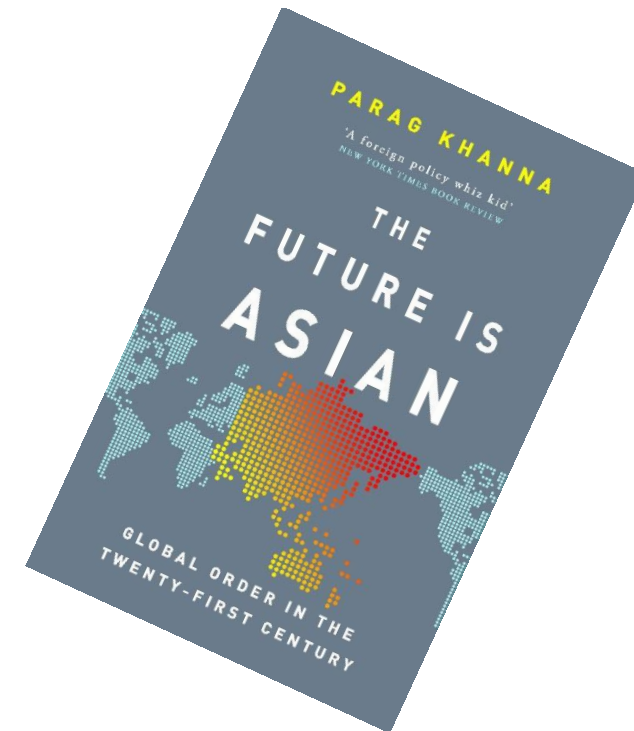


1 The lecturer is very understanding and very entertaining in class. Making the class very interesting

2 Dr helps bring out hidden skills in us students 🙌 👍

MonsoonSIM as game changer

- Teaching and learning (HEI)
- Assessment and evaluation (HEI)
- Training and development (Corporate)
- Unite ASEAN and Asia scholars and educators





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Thank You

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