

Exploring the Relationship Between Culture and Games

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What is Culture?



<http://missionglue.com/wp-content/uploads/2012/11/what-is-culture1.jpg>
<http://thefilmfellas.files.wordpress.com/2012/09/thank-you-in-many-languages.jpeg>
http://www.studentsoftheworld.info/sites/country/img/992_races.jpg
http://2.bp.blogspot.com/_nvWIPy5Qz9k/SSJbhjaTf0I/AAAAAAAAA0E/KM8Ybv8Ye2Q/s1600/astroboy.jpg
<http://library.unomaha.edu/images/Moldoff-Batman.jpg>

감사합니다 Natick
 Danke Ευχαριστίες Dalu
 Grazie Thank You Köszönöm
 Спасибо Dank Gracias
 谢谢 Merci Seé
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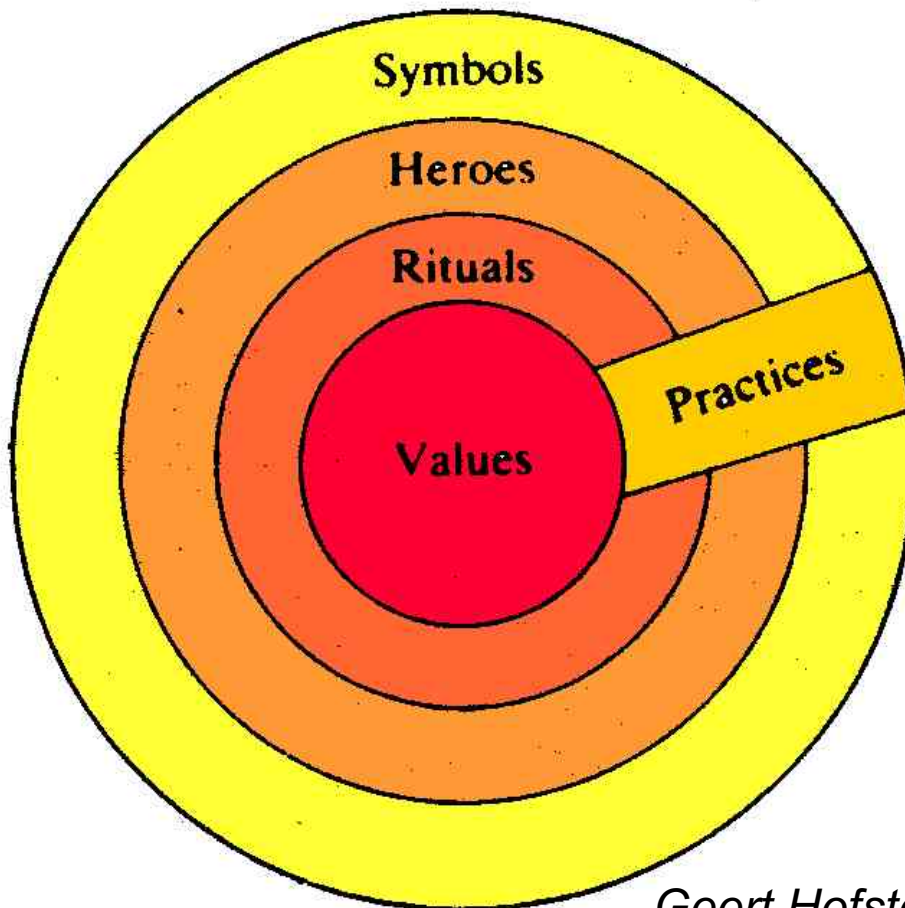
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What is Culture?

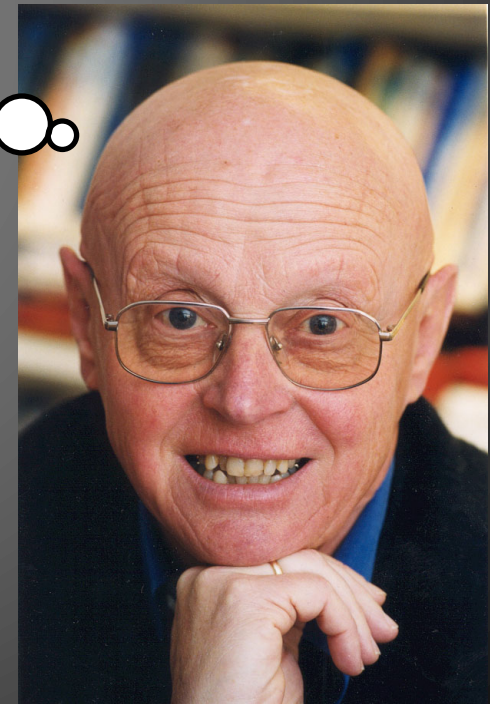
- Japanese pedestrian
 - <https://www.youtube.com/watch?v=QXtOdSgf6Ic>
- Chinese pedestrian
 - <https://www.youtube.com/watch?v=eVhaPBpUlbc>

What is culture?

- Hofstede's Cultural Onion



Geert Hofstede

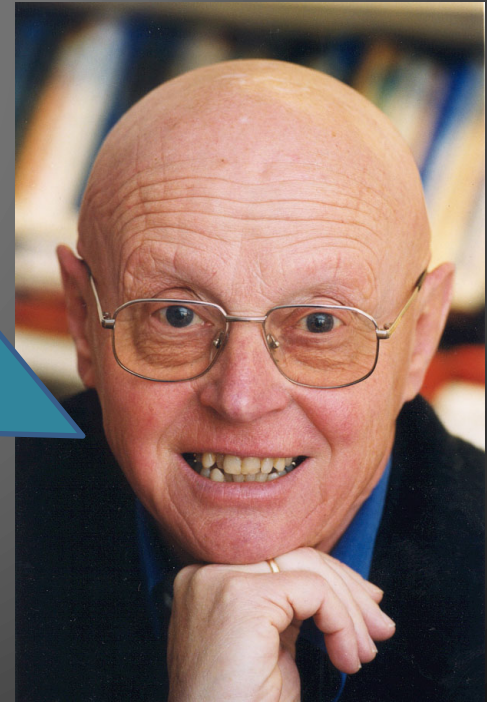


What is culture?

- Hofstede's Definition of Culture

“Culture is the collective **programming** of the human mind that distinguishes the members of one human **group** from those of another. Culture in this sense is a system of collectively held **values**.”

– Geert Hofstede



How to measure culture difference?

- A mini survey

- Thinking of an ideal job, how important or unimportant would it be to you to ...

(1 = Very Unimportant, 5 = Very Important)

- 01. have sufficient time for your personal or home life

1 2 3 4 5

- 02. have security of employment

1 2 3 4 5

- 03. do work that is interesting

1 2 3 4 5

- 04. have a job respected by your family and friends

1 2 3 4 5

How to measure culture difference?

- Calculate a score

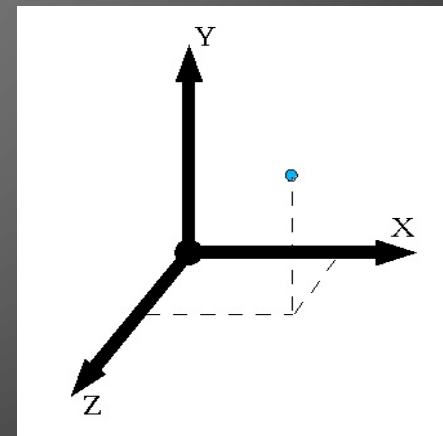
$$Q01 + Q03 - Q02 - Q04$$

-8 ~ -5	
-4 ~ -1	
0 ~ 4	
5 ~ 8	

Hofstede's Cultural Model

IBM Survey	4 Cultural Dimensions
Chinese Value Survey	1 Cultural Dimension
World Value Survey	1 Cultural Dimension
<hr/>	
	6 Cultural Dimensions

- We will focus on three dimensions:
 - Power Distance
 - Individualism v.s. Collectivism
 - Uncertainty Avoidance

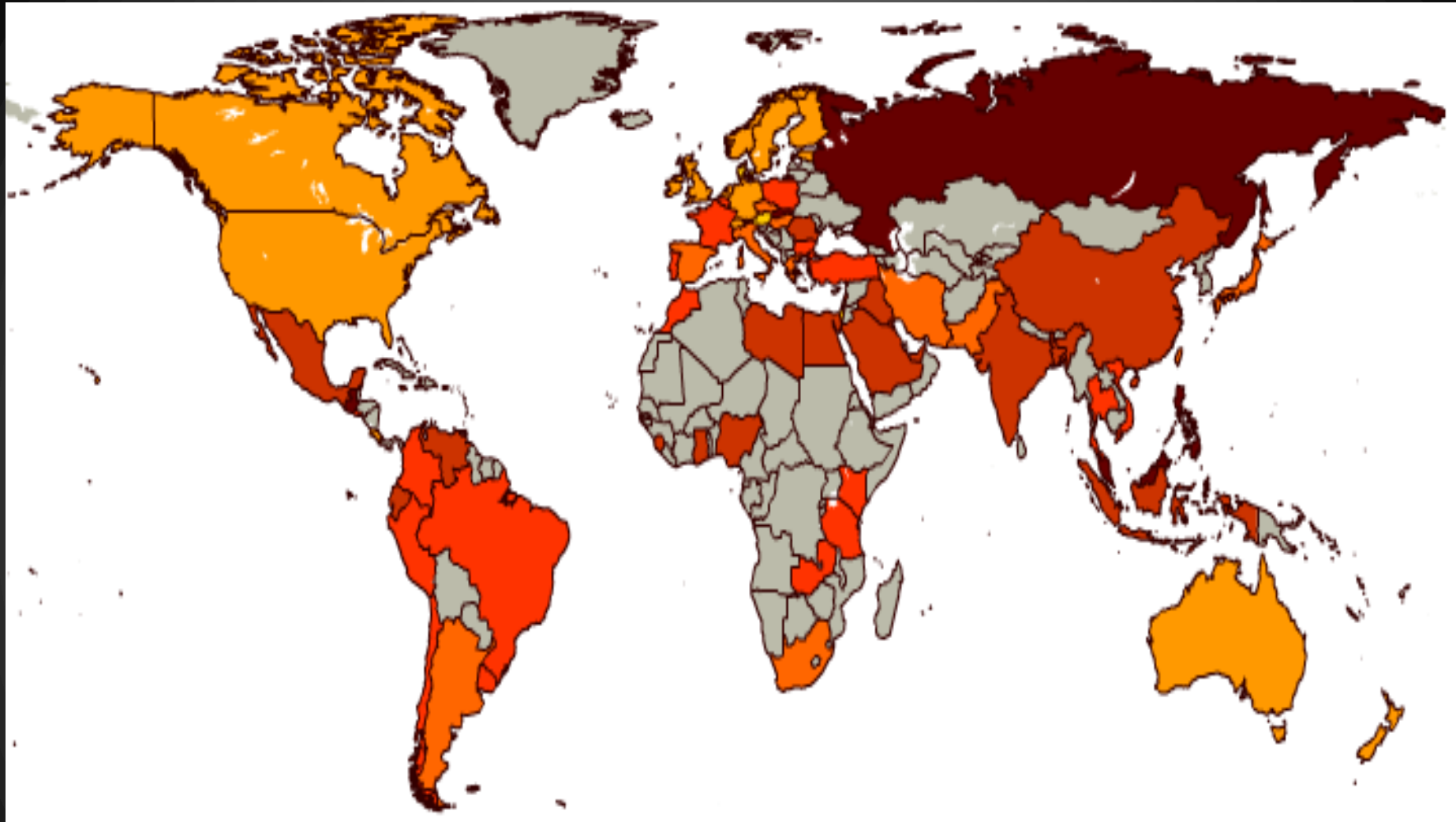


Power Distance (PDI)

- Measures the extent to “which the less powerful members of institutions and organizations expect and accept that power is distributed unequally”
- It's about the little guy.



Small power distance	Large power distance
Inequalities among people should be minimized	Inequalities among people are expected and desired
Less powerful people and more powerful people should be interdependent	Less powerful people should be dependent
Parents treat children as equals	Parents teach children obedience
Children play no role in old-age activity of parents	Children are a source of old-age security to parents
Students treat teachers as equals	Students give teachers respect, even outside of class
Teachers expect initiative from students in class – teachers are experts with impersonal truth	Teachers should take all initiative in class – teachers are gurus who transfer personal wisdom
Education policy focuses on secondary schools	Education policy focuses on universities
Patients treat doctors (more) as equals and actively supply information	Patients treat doctors as superiors; consultations are shorter and controlled by the doctor
Hierarchy in organizations means an inequality of roles, established for convenience.	Hierarchy in organizations reflects existential inequality between higher and lower levels.



<http://www.kwintessential.co.uk/map/hofstede-power-distance-index.html>

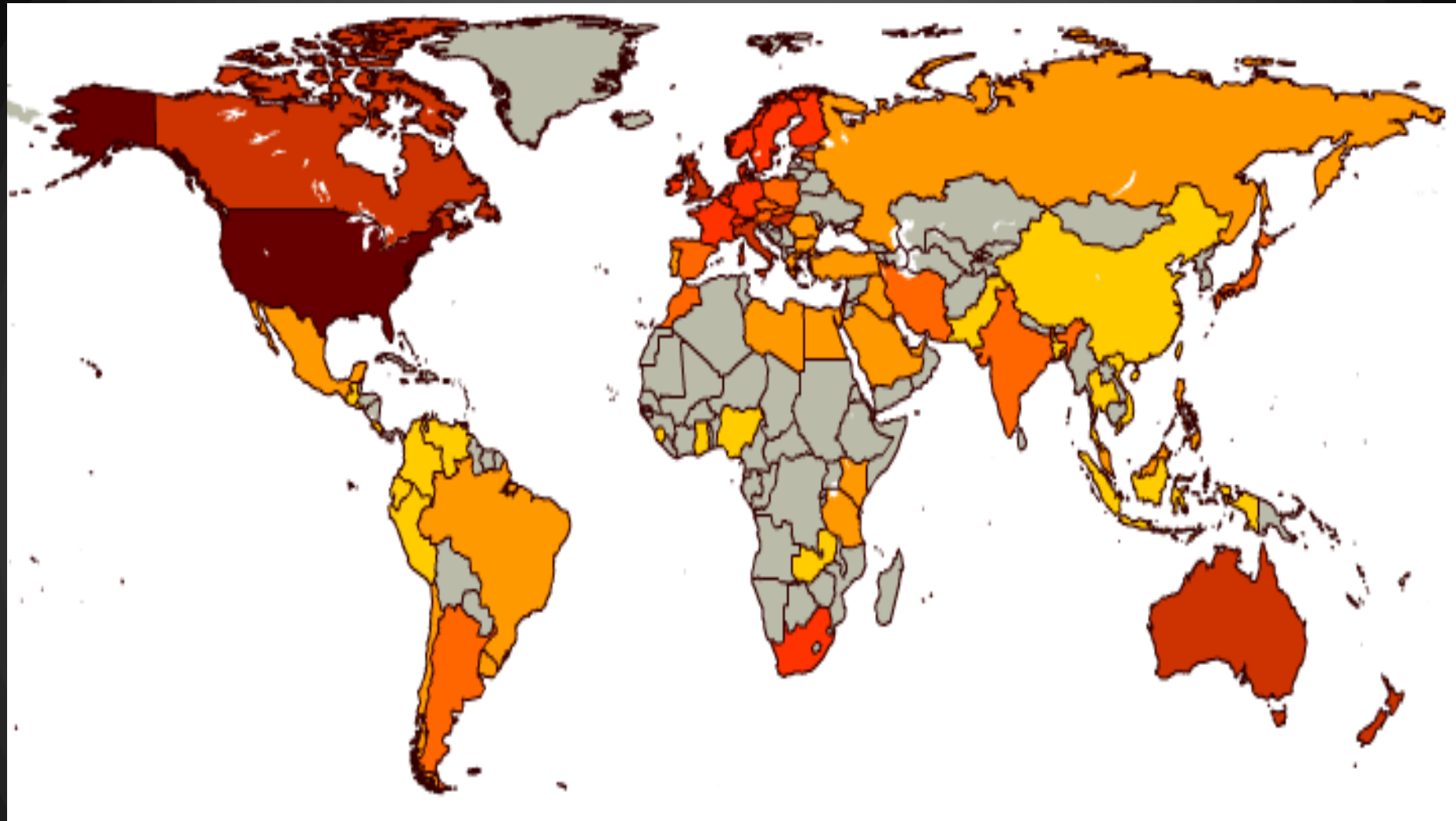
Individualism vs Collectivism (IDV)

- Individualism – The ties between individuals are loose
 - Everyone is expected to look after him or herself and his or her immediate family
- Collectivism – People are integrated into strong, cohesive in-groups
 - Protection in exchange for unquestioning loyalty



Credit: Dan Reynolds

Collectivistic	Individualistic
People are born into extended families /in-groups that protect in exchange for loyalty	People grow up to look after self and immediate family
Value standards differ for in-groups and out-groups = exclusionism	The same value standards are supposed to apply to everyone = universalism
Harmony should be maintained and direct confrontations avoided	Speaking ones mind is a characteristic of an honest person
Friendships are predetermined	Friendships are voluntary and should be fostered
Resources should be shared with relatives	Individual ownership of resources
Adult children live with parents	Adult children leave the parental home
High-context communication prevails	Low-context communication
Frequent socialization in public places	My home is my castle
The most powerful influence on girls' beauty ideals is girlfriends	The most powerful influence on girls' beauty ideals is boys



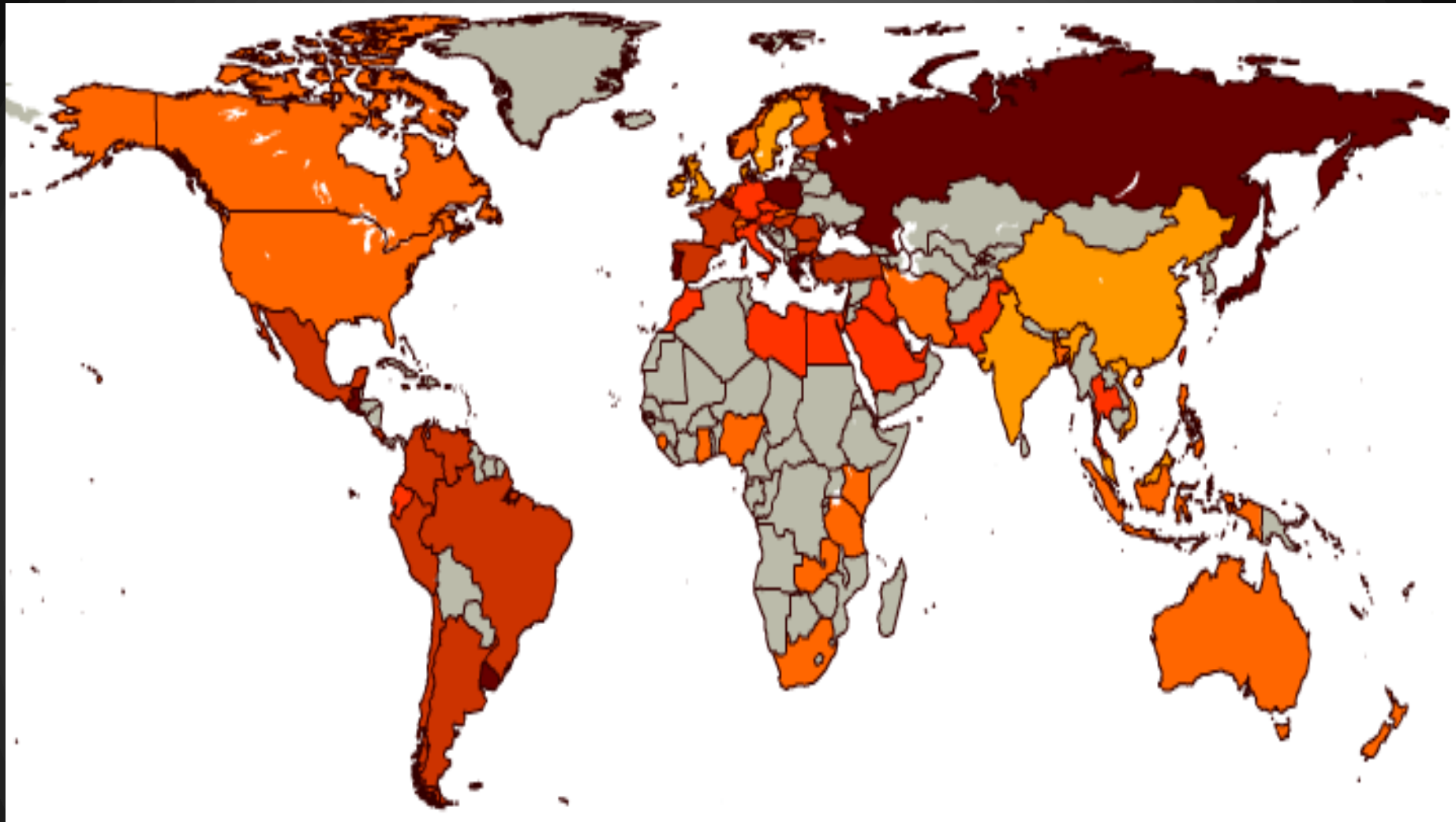
<http://www.kwintessential.co.uk/map/hofstede-individualism.html>

Uncertain Avoidance (UAI)

- Measures the extent to which the members of a culture feel uncomfortable with ambiguity or unknown

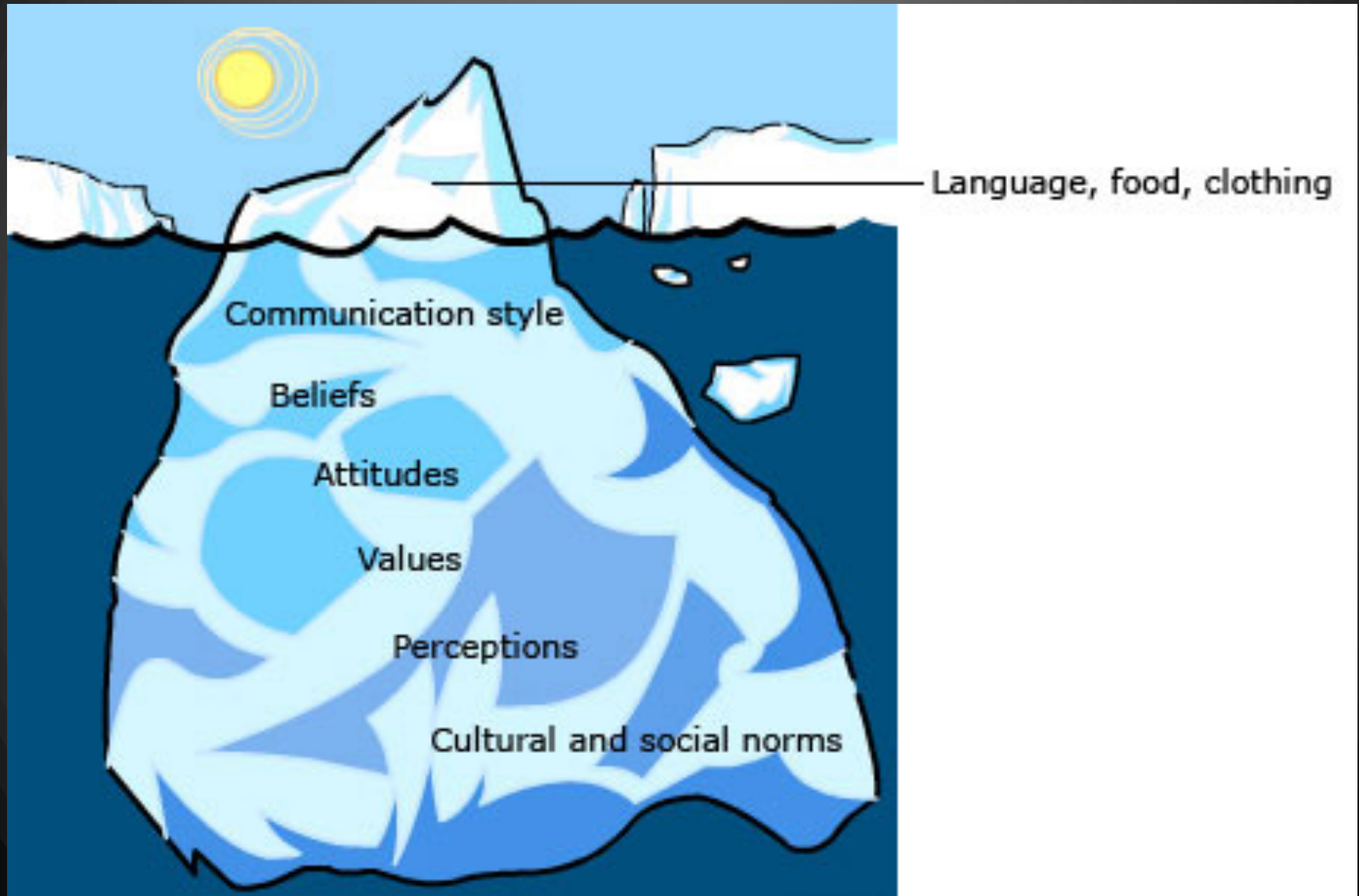


Weak Uncertainty Avoidance	Strong Uncertainty Avoidance
Uncertainty is part of life – accept each day	Uncertainty is a threat and must be fought
Emotions /aggression should not be shown	Emotions /aggression okay to show
Comfortable in ambiguous situations and with unfamiliar risks	Acceptance of familiar risks; fear of ambiguous situations and of unfamiliar risks
Low stress and low anxiety	High stress and high anxiety
What is different is curious	What is different is dangerous
Fewer people feel unhappy/few worries about health and money	More people unhappy/more worries about health and money
Students comfortable with open-ended situations and good discussion	Students are comfortable in structured learning and concerned with right answers
Teachers can say “I don’t know”	Teachers should know the answers
There is fast acceptance of new products such as mobile phones, e-mail and Internet	There is hesitancy toward new products and technologies
Risky investments	Conservative investments



<http://www.kwintessential.co.uk/map/hofstede-uncertainty-avoidance.html>

Culture – Review



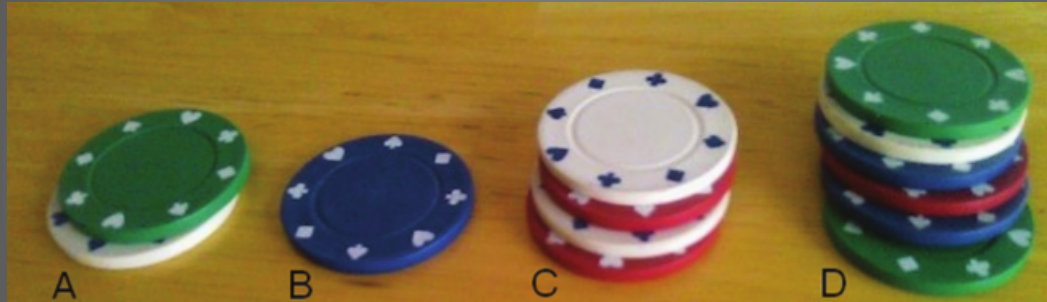
Cross Cultural Gaming Experience

- Playing 'Ultimatum' -- Chuah et al. (2007)
 - <https://www.youtube.com/watch?v=YXfEv-xEWtE>
 - Malaysian proposers tend to make significantly higher offers to Malaysian responders than to UK responders
 - Malaysian responders rejected significantly more often than UK responders when played with the proposer from the other nation



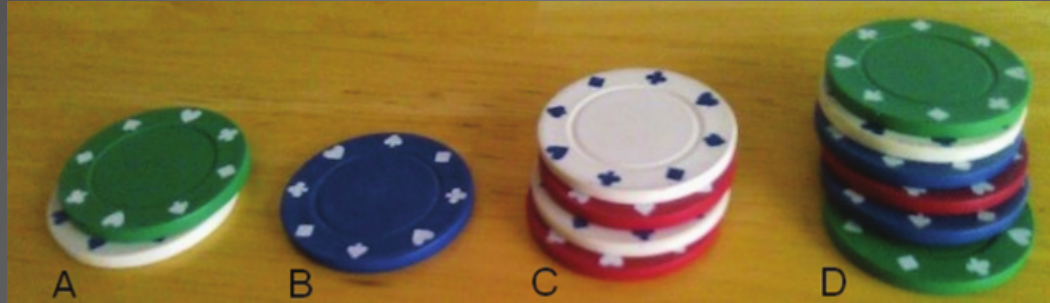
Cross Cultural Gaming Experience

- Hofstede and Murff (2011) – observation on playing ‘SO LONG SUCKER’



- Designed for a 20-minute play session -- for the U.S. players
- Could last for hours when played by Taiwanese students; collaborative rather than antagonistic behaviors occurred.
- They worked together and discussed strategies to keep each other in the game
- ‘SO LONG SUCKER’ became ‘STAY HERE SUCKER’

Workshop: Redesigning 'SO LONG SUCKER'



- Brainstorm some ideas that could possibly make SO LONG SUCKER enjoyable by collectivistic players.

Culturally Sensitive Game Design

- Design for collectivist persuasion -- Khaled et al. (2009)
 - *Smoke?*, a game promoting smoking cessation
 - Originally designed for New Zealand European players (individualists); redesigned for Maori players (collectivists)
 - Finding: culturally matched conditions yielded greater persuasion

Top-down Analysis of Cross-Cultural Gaming Experience

- Hofstede, G. J. (2007). One game does not fit all cultures. In I. Mayer & H. Mastik (Eds.), *Organizing and Learning through Gaming and Simulation. Proceedings of ISAGA* (pp. 103–110). Delft: Eburon.

Cultural Dimension		Gaming Behavior
Hierarchy	High power distance	<ul style="list-style-type: none"> Usually bring real-world hierarchy into game.
	Low power distance	<ul style="list-style-type: none"> No tendency to bring real-world hierarchy into game.
Identity	Individualism	<ul style="list-style-type: none"> Gaming group is voluntary. Easy to team with strangers.
	Collectivism	<ul style="list-style-type: none"> Gaming group is stable and hardly changed. Teaming with stranger may be hard.
Fear of the unknown	Strong uncertainty avoidance	<ul style="list-style-type: none"> Prefer games which have strict rules; dislike games that include ambiguity. Want to be well prepared; anxious about making errors.
	Weak uncertainty avoidance	<ul style="list-style-type: none"> Curious about different possibilities in games. Like surprises in games.

Culturally Sensitive Game Design

- Culture Driven Game Design Method -- Meershoek et al. (2012)
 - An iterative method
 - Avoid involving play-testers from the target culture

Hofstede

Wenzler (2008)

CULTURE DIMENSIONS

POWER DISTANCE

IDENTITY

GENDER

FEAR OF THE UNKNOWN

GRATIFICATION OF NEEDS

Egalitarian

Hierarchical

Collectivistic

Individualistic

Feminine

Masculine

Uncertainty tolerant

Uncertainty avoiding

Short term oriented

Long term oriented

GAME DIMENSIONS

CONTEXT

PROBLEM

Understood

Ambiguous

OBJECTIVE

Knowledge transfer

Knowledge creation

MODEL

Qualitative

Quantitative

STORY

Reality based

Metaphor based

PARTICIPANTS

TARGET

Single-individual

Multiple groups

LEVEL

Operational

Executive

ROLES

Real life

Assumed

CULTURE

Homogeneous

Heterogeneous

PROCESS

SEQUENCE

Real time

Concentrated

INTERACTION

Directive

Self organizing

STEPS

Sequential

Iterative

INDICATORS

Qualitative

Quantitative

ENVIRONMENT

LOCATION

Single

Multiple

PLACE

Physical facility

Virtual environment

MATERIAL

Static

Evolving

REPRESENTATION

Realistic

Symbolic

CULTURE DIMENSION

POWER DISTANCE

Egalitarian vs. Hierarchical

GAME DIMENSION

INTERACTION

Directive vs. Self organizing

THEORY AND POTENTIAL CONFLICT

Participants with an egalitarian culture like it to bring some initiative to the game. Games with a directive interaction may be considered boring. For participants from a hierarchical culture the opposite holds. They prefer a more limited freedom of behaviour and may therefore have problems with self organizing interaction in the game.

My Research: Exploring Cross-Cultural Gaming Preference

- Research questions:
 - To what degree could individual gaming preferences be attributed to his/her cultural values?
 - How the gaming preferences and cultural values are related?

Participants

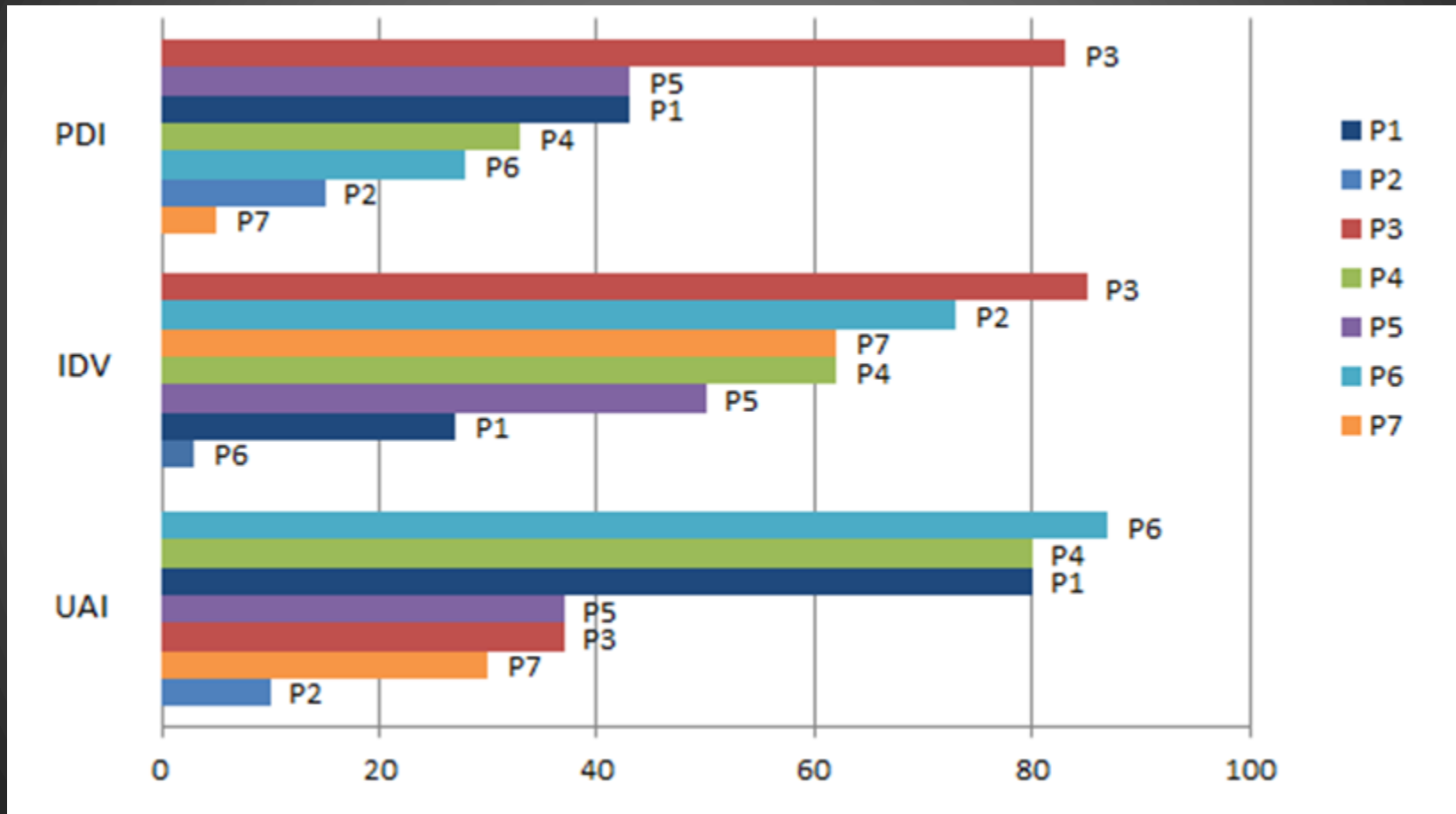


- All lives in the U.S.
- Mostly international students
- All but one Chinese participant were male
- All aged between 25 and 29 years old

Interviews

- At DePaul University and participants' homes.
- 30 - 45 minutes each.
- Questions:
 - (1) What games they were recently playing;
 - (2) How they usually choose the games;
 - (3) The first game they played and got excited;
 - (4) All-time favorite and least favorite games and reasons;
 - (5) Best and worst gaming experience;
 - (6) What features or elements they would include if they could design games.
- Used Hofstede's Value Survey Module 2008 to evaluate their reflection on their culture values.

Results – Cultural Values



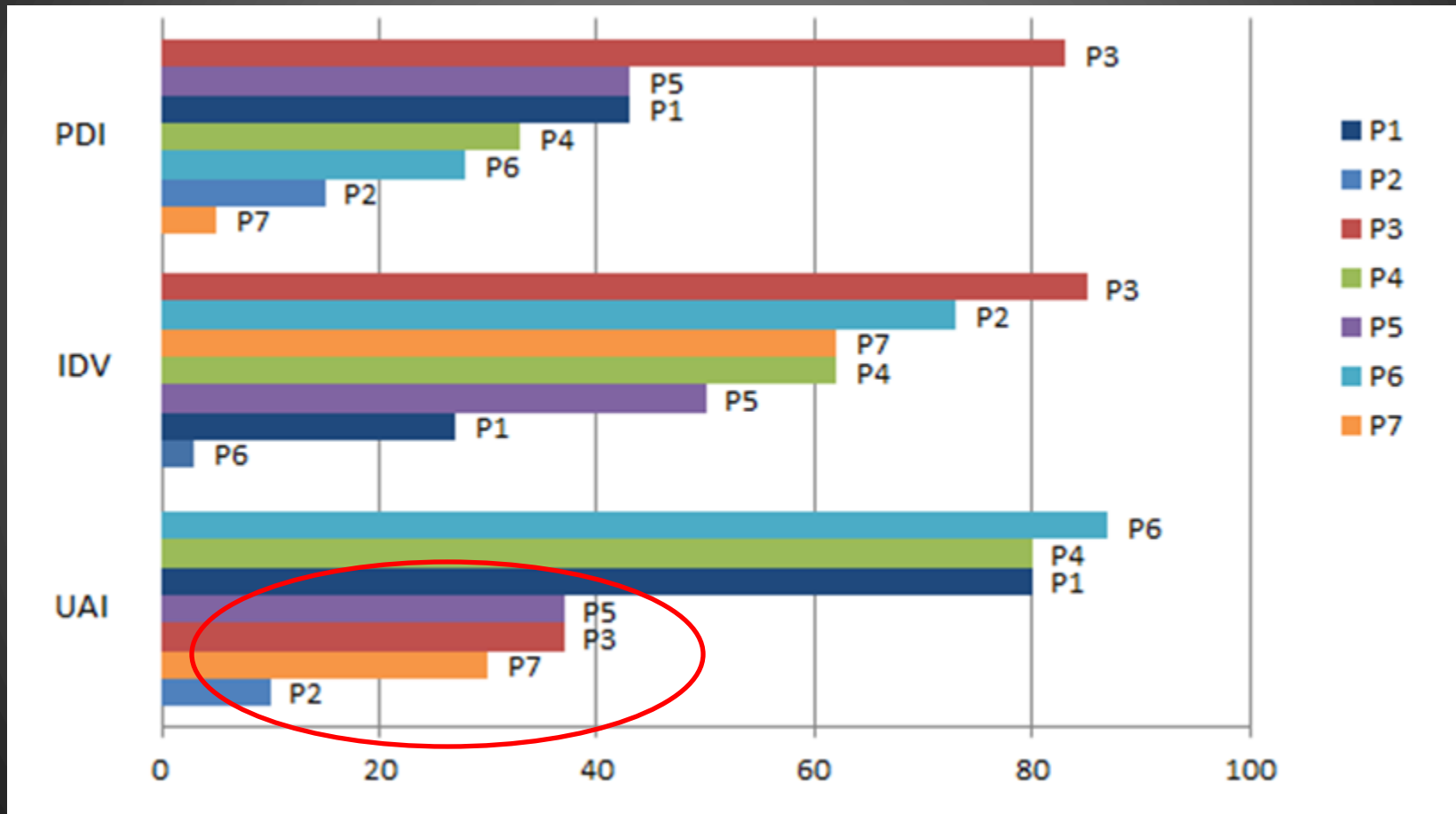
Results – Gaming Preferences

Gaming aspects	P1	P2	P3	P4	P5	P6	P7
Social interaction		X	X		X		X
Tension		X	X		X		
Imagination/fantasy		X		X			
Openness/freedom				X			X
Humor		X					X

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Openness/freedom				X			X
Humor		X					X

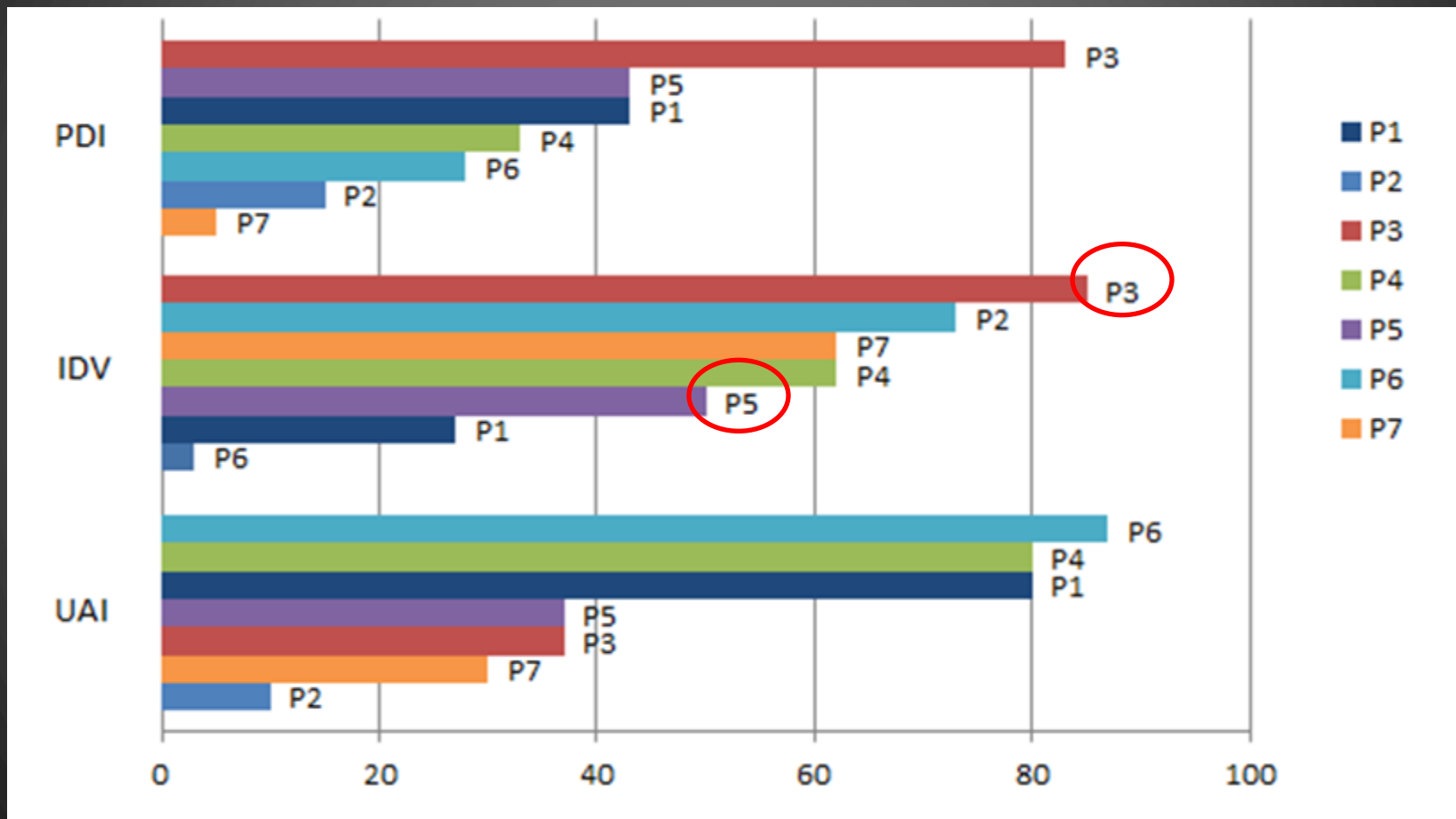
Results – Cultural Values



Results – Social Interaction

Participant ID	Playing online	Playing with friends	Playing with families	Overall preference in social gaming
P1	Low (2)	Very Low (1)	Very Low (1)	Low
P2	Very Low (1)	Low (2)	Medium (3)	Medium
P3	Very High (5)	Medium (3)	Very Low (1)	High
P4	Very Low (1)	Low (2)	Low (2)	Low
P5	Medium (3)	Very High (5)	Very Low (1)	High
P6	Very Low (1)	Low (2)	Very Low (1)	Low
P7	Very Low (1)	Low (2)	Medium (3)	Medium

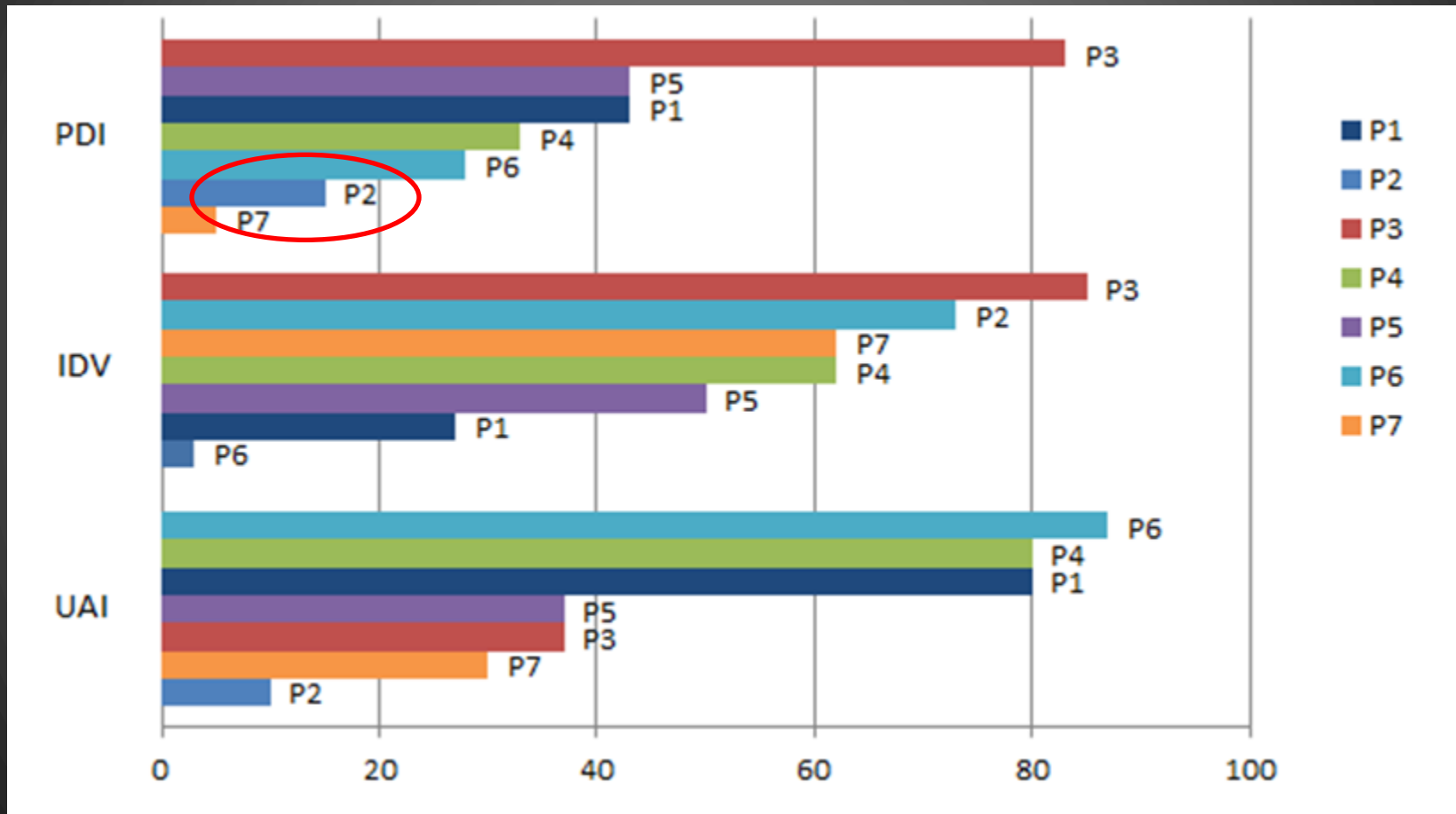
Results – Cultural Values



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P4	Very Low (1)	Low (2)	Low (2)	Low
P5	Medium (3)	Very High (5)	Very Low (1)	High
P6	Very Low (1)	Low (2)	Very Low (1)	Low
P7	Very Low (1)	Low (2)	Medium (3)	Medium

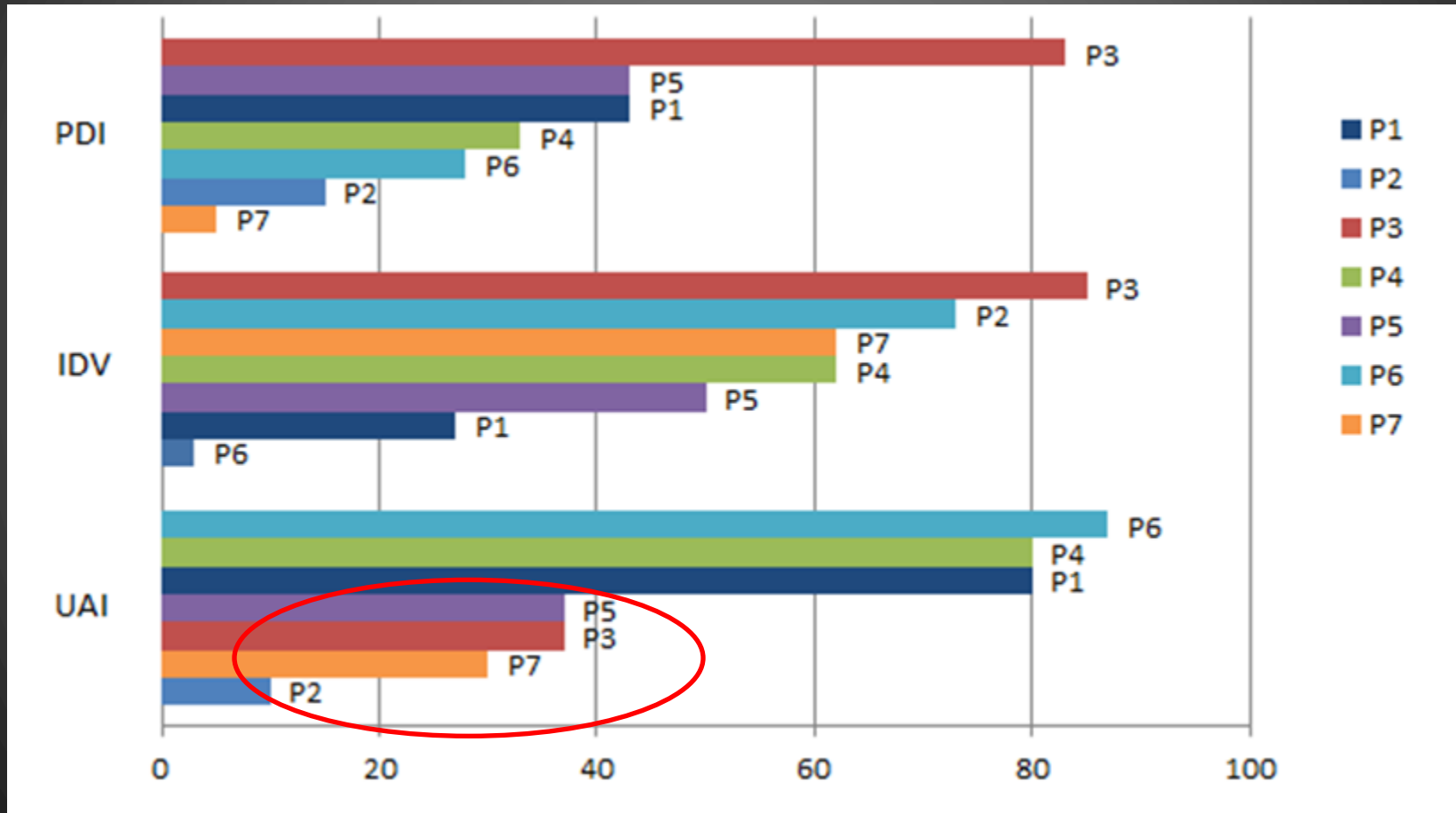
Results – Cultural Values



Results – Tension and Humor

Gaming aspects	P1	P2	P3	P4	P5	P6	P7
Social interaction		X	X		X		X
Tension		X	X		X		
Imagination/fantasy		X		X			
Openness/freedom				X			X
Humor		X					X

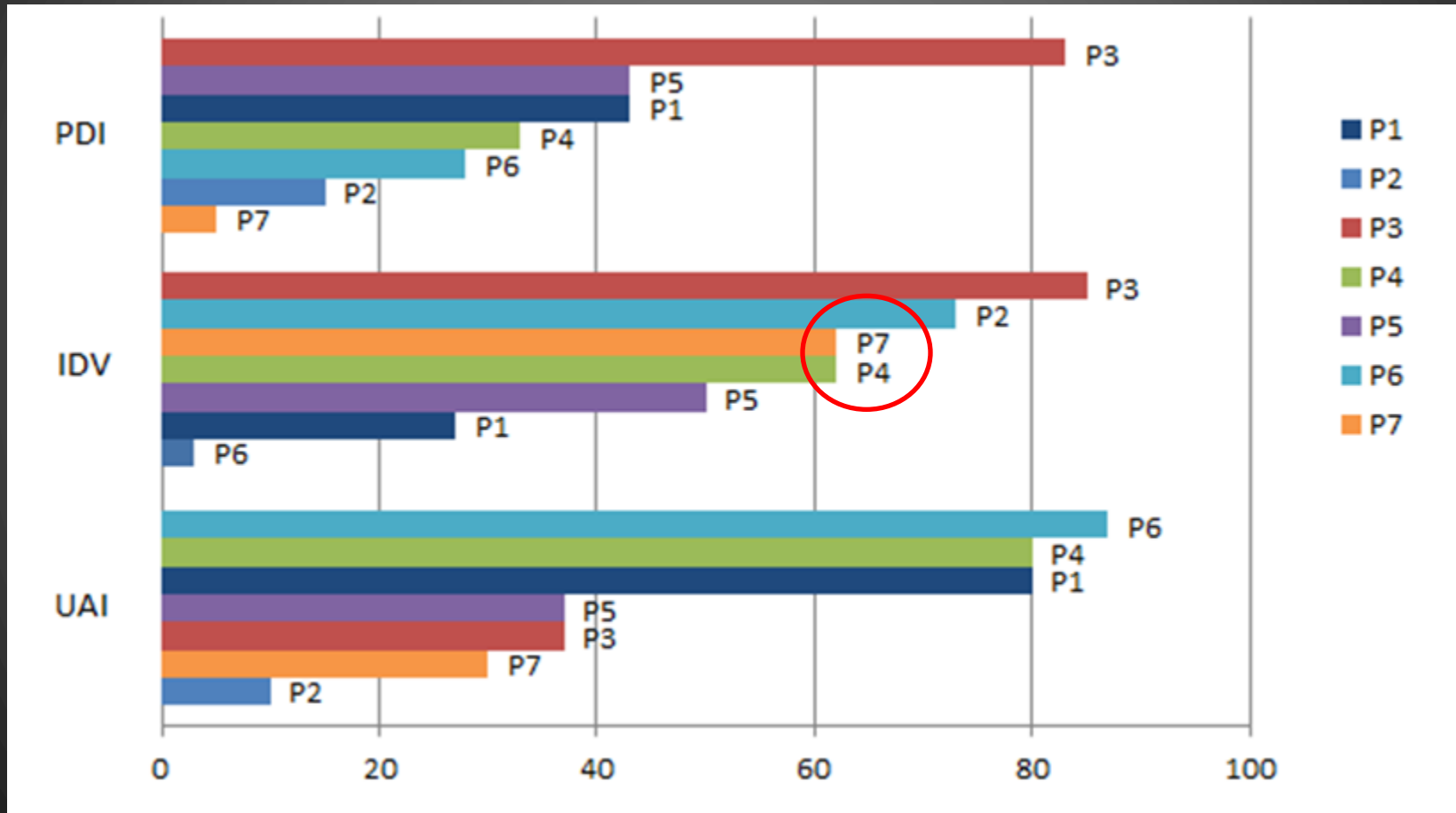
Results – Cultural Values



Results – Openness/Freedom

Gaming aspects	P1	P2	P3	P4	P5	P6	P7
Social interaction		X	X		X		X
Tension		X	X		X		
Imagination/fantasy		X		X			
Openness/freedom				X			X
Humor		X					X

Results – Cultural Values



Thank you !!!

- **Questions?**
- **Comments?**
- **Contact:**
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